ADDENDUM TO EPA'S 104(E) FIRST REQUEST FOR INFORMATION
CONTEMPORANEOUS UPDATES
ASH GROVE CEMENT COMPANY
PORTLAND HARBOR SUPERFUND SITE

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AGC0011720

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Acronym	Definition
ACDP	Air Contaminant Discharge Permit
CBI	Confidential Business Information
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CGAC	Columbia Gorge Aluminum Company
CO_2	Carbon Dioxide
DSL	Department of State Lands
EPA	United States Environmental Protection Agency
gpm	Gallons per Minute
HCl	Hydrochloric Acid
HME	Hickey Marine Enterprises, Inc.
MFSA	Maritime Fire & Safety Association
mg/L	Milligram per Liter
MMBtu	Million British Thermal Units
MSDS	Material Safety Data Sheets
NPDES	National Pollutant Discharge Elimination System
NRC	National Response Center
O&M	Operations and Maintenance
ODEQ	Oregon Department of Environmental Quality
OMRI	Organic Materials Review Institute
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
POTW	Publicly Owned Treatment Works
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
SPCC	Spill Prevention Control and Countermeasure
SWPCP	Stormwater Pollution Control Plan
TSD	Transfer, Storage or Disposal
TSS	Total Suspended Solids
UIC	Underground Injection Control
UPRR	Union Pacific Railroad
USCG	United States Coast Guard
WSDA	Washington State Department of Agriculture

AGC0011722

1. GENERAL OBJECTIONS TO EPA'S 104(E) INFORMATION REQUEST

Ash Grove Cement Company ("Ash Grove") reasserts and reincorporates its general objections as stated in the October 2008 Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") § 104(e) response.

AGC0011723

2. GENERAL ASSUMPTIONS USED IN PREPARATION OF RESPONSES

Ash Grove reasserts and reincorporates its general assumptions as stated in the October 2008 CERCLA § 104(e) response. Unless otherwise stated in an individual response, Ash Grove has included information and documents up to and including March 31, 2013 in this response. When the phrase "to present" is used, it means up to March 31, 2013. All of the questions that appeared in the October 2008 CERCLA § 104(e) response are listed in section 3. However, if no text has been added to a particular question, then no additional information was warranted in Ash Grove's opinion.

AGC0011724

3. RESPONSES TO EPA'S 104(E) REQUEST FOR INFORMATION

The following sections of this document provide responses to the questions included in the United States Environmental Protection Agency's ("EPA's") January 18, 2008 information request. The specific language of each of EPA's question numbers is included in **bold** font for reference, and is followed by Ash Grove's corresponding response.

1. Provide the full legal, registered name and mailing address of Respondent.

2. For each person answering these questions on behalf of Respondent, provide:

a. full name;
b. title;
c. business address; and
d. business telephone number, electronic mail address and FAX machine number.

Overland Park, KS Home Office:

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Overland Park, KS 66210

Mailing Address:
P.O. Box 25900
Overland Park, KS 66225

Office: (913) 451-8900
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Gary Church, Assistant General Counsel & Assistant Secretary
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Rivergate Plant:

Physical & Mailing Address:
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Portland, OR 97203

Office: (503) 286-1677
FAX: (503) 289-2272

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Portland Cement Terminal:

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3737 N. Port Center Way
Portland, OR 97217

Office: (503) 285-4621
FAX: (503) 286-4987

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john.hone@ashgrove.com

3. If Respondent wishes to designate an individual for all future correspondence concerning this Site, please indicate here by providing that individual's name, address, telephone number, fax number and, if available, electronic mail address.

Gary Church replaces Eileen Flink as the individual designated for all future correspondence concerning the Rivergate and Terminal facilities. Updated contact information is also provided for Leslie Nellermoe.

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4. Identify each and every Property that Respondent currently owns, leases, operates on, or otherwise is affiliated or historically has owned, leased, operated on, or otherwise been affiliated with within the Investigation Area during the period of investigation (1937 – Present). Please note that this question includes any aquatic lands owned or leased by Respondent.

Rivergate

On September 30, 2010, Simplot purchased the portion of Ramsey Boulevard that is adjacent to the Rivergate facility from the Port of Portland. Ash Grove negotiated a perpetual easement for road access to the Rivergate site with Simplot after this purchase on August 14, 2012 which is included in this addendum's appendix attached to this addendum to EPA's § 104(e) First Request for Information [AGC0011788-AGC0011802]. The revenue information is included on the Confidential Business Information ("CBI") disk included with this submission.

Graymont Western US, Inc. ("Graymont"), an unaffiliated third party, leases a portion of the product handling facilities (i.e., the storage silos, conveyors, and hydrating facilities) at the Rivergate facility. The original lease term for Ash Grove's product handling facilities ran from June 1, 2006 to December 31, 2011 [AGC0011803-AGC0011832], but was amended on January 1, 2010 to run through December 31, 2014 [AGC0011833-AGC0011862]. There is an option for one (1) 3-year renewal. The revenue information for both leases with Graymont are included on the CBI disk included with this submission.

On April 23, 2004, Ash Grove registered the wharf located at the Rivergate facility with the Department of State Lands ("DSL"). This registration expired on April 30, 2009, and a new 5-year wharf registration was issued by DSL on May 1, 2009. Both the current and previous wharf registrations can be found in this addendum's appendix [AGC0011863-AGC0011871].

On November 14, 1989, Oregon Steel Mills and Ash Grove jointly negotiated a perpetual easement for a natural gas pipeline with the DSL. This perpetual easement granted Oregon Steel Mills and Ash Grove the right to construct, maintain, operate, and replace a pipeline in, over, and across the state-owned submerged and submersible land of the Willamette River. The natural gas pipeline easement can be found in this addendum's appendix [AGC0011872-AGC0011876].

5. Provide a brief summary of Respondent's relationship to each Property listed in response to Question 4 above, including the Address, Multnomah County Alternative Tax lot Identification numbers(s), dates of acquisition, period of ownership, lease, operation or affiliation, and a brief overview of Respondent's activities at the Properties identified.

Rivergate

Ash Grove now leases a portion of its product handling facilities (i.e., its storage silos, conveyors, and hydrating facilities) to Graymont, an unaffiliated third party. Graymont receives rail shipments of quicklime produced offsite, which is the raw material for the hydration process, and sells quicklime and hydrated lime to its customers in bags and bulk shipments. The original lease term for Ash Grove's product handling facilities ran from June 1, 2006 to December 31, 2011, but was amended on

January 1, 2010 to run through December 31, 2014. There is an option for one (1) 3-year renewal. Ash Grove has observed no water discharges or wastewater impoundments associated with Graymont's operations.

Ash Grove discontinued quicklime production in June 2006 when it decommissioned the three (3) calcimatic kilns; the kilns were subsequently demolished and removed in 2008. Ash Grove continues to operate grinding mills at the Rivergate facility to produce powdered limestone and dolomite. These products are sold in the area. Limestone flour and ground dolomite are certified organic by the Organic Materials Review Institute ("OMRI") and the Washington State Department of Agriculture ("WSDA"), as evidenced by the most recent OMRI and WSDA material registration certificates. These certificates are included in this addendum's appendix [AGC0011877-AGC0011879].

In 2008, Ash Grove began receiving and transloading white limestone from Lafarge's Texada Quarry Ltd. for Columbia River Carbonates.

In 2009, Ash Grove reclaimed 30,000 ton tailings stockpile as ag lime product.

Terminal

The primary material distributed through the Terminal is cement; however, ground granulated blast furnace slag has been handled in very limited quantities since the October 2008 CERCLA § 104(e) response. At the North Terminal, blast furnace slag from overseas sources arrives by ship, is unloaded into three (3) steel storage silos and then either loaded into railcars for distribution to Ash Grove's customers or transferred via rail cars or enclosed pipe conveyor to the South Terminal from which it is distributed to customers.

Blast furnace slag is an additive in cement, and projects using this material receive LEED (Leadership in Energy and Environmental Design) credit. Ash Grove conducted a chemical analysis in 2009 that showed blast furnace slag to be of comparable particle size and consistency to cement. According to a March 23, 2009 email from Kathy Amidon at the Oregon Department of Environmental Quality ("ODEQ") [AGC0011880-AGC0011881], the handling of blast furnace slag at the Terminal does not necessitate changes to the Terminal air contaminant discharge permit ("ACDP") [AGC0011882-AGC0011902]. The annual ACDP reports submitted since 2008, which were not included in the October 2008 CERCLA § 104(e) response, are included in this addendum's appendix [AGC0011903-AGC0011948]. In addition, the Material Safety Data Sheet ("MSDS") for blast furnace slag is included in this addendum's appendix [AGC0011949-AGC0011955].

Since the North Terminal began accepting material from vessels in 2007, twelve (12) cement vessels and four (4) blast furnace slag vessels have unloaded material at the site. As discussed further in the response to Question No. 20 below, the U.S. economic downturn has significantly decreased the number of vessels unloading material at the Terminal facility. Since May 2008, no cement vessels and only four (4) slag vessels have unloaded material.

6. Identify any persons who concurrently with you exercises or exercised actual control or who held significant authority to control activities at each Property, including:

a. **partners or joint venturers;**

b. **any contractor, subcontractor, or licensor that exercised control over any materials handling, storage, or disposal activity on the Property; (service contractors, remediation contractors, management and operator contractors, licensor providing technical support to licensed activities);**

c. **any person subleasing land, equipment or space on the Property;**

d. **utilities, pipelines, railroads and any other person with activities and/or easements regarding the Property;**

e. **major financiers and lenders;**

f. **any person who exercised actual control over any activities or operations on the Property;**

g. **any person who held significant authority to control any activities or operations on the Property;**

h. **any person who had a significant presence or who conducted significant activities at the Property; and**

i. **any governmental entities that had proprietary (as opposed to regulatory) interest or involvement with regard to the activity on the Property.**

7. Identify and describe any legal or equitable interest that you now have, or previously had in each Property. Include information regarding the nature of such interest; when, how, and from whom such interest was obtained; and when, how and to whom such interest was conveyed, if applicable. In addition, submit copies of all instruments evidencing the acquisition or conveyance of such interest (e.g., deeds, leases, purchase and sale agreements, partnership agreements, etc.).

See response to Question No. 4.

8. If you are the current owner and/or operator, did you acquire or operate the Property or any portion of the Property after the disposal or placement of hazardous substances, waste, or materials on, or at the Property? Describe all of the facts on which you base the answer to this question.

9. At the time you acquired or operated the Property, did you know or have reason to know that any hazardous substance, waste, or material was disposed of on, or at the Property? Describe all investigations of the Property you undertook prior to acquiring the Property and all of the facts on which you base the answer to this question.

10. Identify all prior owners that you are aware of for each Property identified in Response to Question No. 4. For each prior owner, further identify if known, and provide copies of any documents you may have regarding:

a. **the dates of ownership;**

b. **all evidence showing that they controlled access to the Property; and**

c. **all evidence that a hazardous substance, pollutant, or contaminant, was released or threatened to be released at the Property during the period that they owned the Property.**

11. Identify all prior operators, including lessors, that you are aware of for each Property identified in response to Question No. 4. For each such operator, further identify if known, and provide copies of any documents you may have regarding:

a. **The dates of operation**
b. **The nature of prior operations at the Property**
c. **All evidence that they controlled access to the Property**
d. **All evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at or from the Property during the period that they were operating the Property**

12. If not included in response to any of the previous questions, please describe the purpose and duration of each aquatic lands lease Respondent or the operator of Respondent's Property(ies) ever obtained from the State of Oregon and provide a copy of each application for and aquatic lands lease obtained.

Terminal

The submerged lands leased at the North Terminal are limited to a small area under Silo No. 3, approximately 0.04 acre per Submerged and Submersible Land Lease ML-10587 [AGC0000603-AGC0000620]. The North Terminal wharf is not on leased state lands. The stated purpose of lease ML-10587 is for the silo storage of cement or alumina. Ash Grove has never accepted alumina at the Terminal for storage in its silos. Submerged and Submersible Land Lease ML-855 [AGC0000592-AGC0000600] states that the Columbia Gorge Aluminum Company ("CGAC") was the prior leaseholder of the aquatic land identified in Submerged and Submersible Land Lease ML-10587.

Ash Grove also leases aquatic lands over which the South Terminal pier is located per Submerged and Submersible Land Lease ML-42024 [AGC0011956-AGC0011975]. The authorized use in the lease is "marine industrial, marine service pier." The leased area is 3,100 square feet and is shown in the drawing attached to the lease. Wilsonville Concrete has moored barges, tugs and dredges at the pier for approximately one (1) year. The number of barges, dredges and tugs moored at the pier has ranged from two (2) to ten (10). A copy of the agreement between Ash Grove and Wilsonville Concrete is included in this addendum's appendix [AGC0011976-AGC0011991]. Ash Grove redacted revenue information from the agreement because providing the revenue information could

put Ash Grove at a competitive disadvantage in the marketplace. The revenue information is included on the CBI disk included with this submission.

13. Provide the following information about each Property identified in response to Question 4:

a. Property boundaries, including a written legal description;

Rivergate

On September 30, 2010, Simplot purchased the portion of Ramsey Boulevard that is adjacent to the Rivergate facility from the Port of Portland. Ash Grove subsequently negotiated a perpetual easement for road access to the Rivergate site with Simplot.

b. Location of underground utilities (telephone, electrical, sewer, water main, etc.);

c. Location of all underground pipelines whether or not owned, controlled or operated by you;

d. Surface structures (e.g., buildings, tanks, pipelines, etc.);

North Terminal:

- The 125-gallon propane tank was removed in June 2011 and replaced with two (2) five (5)-gallon containers
- Rail unloading system (2009)

e. Over-water structures (e.g., piers, docks, cranes, etc.);

f. Dry wells;

g. Treatment or control devices (e.g., surface water, air, groundwater, Resource Conservation and Recovery Act (RCRA), Transfer, Storage, or Disposal (TSD), etc.);

The response to Question No. 13g is provided in Table 13-1 and Table 13-2 for the Terminal and Rivergate facilities, respectively, for changes since May 2008.

TABLE 13-1. POLLUTION CONTROL DEVICES AT THE TERMINAL FACILITY

Process/Activity	Control Device
Cement transfer	Enclosed pipe conveyor system
Truck wash system	Carbonics system
Outfall 4 stormwater vault	Carbonics system
Pipe conveyor	IAC dust collector system

AGC0011731

A photograph of the enclosed pipe conveyor used to transfer cement between the North and South Terminals is included in Figure 13-1.

FIGURE 13-1. ENCLOSED PIPE CONVEYOR USED TO TRANSFER CEMENT BETWEEN THE NORTH TERMINAL AND SOUTH TERMINAL

TABLE 13-2. POLLUTION CONTROL DEVICES AT THE RIVERGATE FACILITY

Process/Activity	Control Device
Truck Loading	Two air slide dust collectors

h. Groundwater wells, including drilling logs;

Rivergate

Since the submittal of the October 2008 CERCLA § 104(e) response, Ash Grove located a water well report made by R.J. Strasser Drilling Co. on May 23, 1963 for the well installed in 1963. Ash Grove previously reported a depth of 150 feet and a flow rate of 500 gallons per minute ("gpm") in the October 2008 CERCLA § 104(e) response based upon its application for well drilling permit that was submitted April 10, 1963 [AGC0011992-AGC0011999]. The Strasser water well report states

that the well is drilled and steel-cased to a depth of 212 feet and is capable of producing 560 gpm. The Strasser well report is included in this addendum's appendix [AGC0012000].

i. Storm water drainage system, and sanitary sewer system, past and present, including septic tank(s) and where, when and how such systems are emptied and maintained;

Rivergate

Ash Grove's National Pollutant Discharge Elimination System ("NPDES") Waste Discharge Permit No. 102465 [AGC0012001-AGC0012014], which is included in this addendum's appendix, allows surface water discharge during winter wet weather when flows exceed the absorptive capacity of the irrigation site. However, according to ODEQ's compliance history description in the 2011 NPDES Permit Evaluation and Fact Sheet, which is included in this addendum's appendix [AGC0012015-AGC0012041], "the site has only discharged [to the river] twice since 1974." One (1) discharge occurred in 1994 and was associated with heavy rain events; the other was in 2000 and was associated with the installation of the sanitary sewer, which went through the field onto which wastewater was customarily irrigated.

A number of settling basins or impoundments are located at the site. The primary sources of water into the basins were non-contact cooling water and rainwater that fell onto the site. As stated in ODEQ's 2011 NPDES Permit Evaluation and Fact Sheet, ODEQ concluded that there is no concern for pollutants potentially entrained or dissolved during runoff or infiltration.

In February 2010, Ash Grove capped Outfall 001 with a removable steel plate to prevent the discharge of incidental rainwater runoff flows from the facility to the Willamette River. In the unlikely event of a major rain event, the cap can be removed to prevent flooding on the upland portion of the facility.

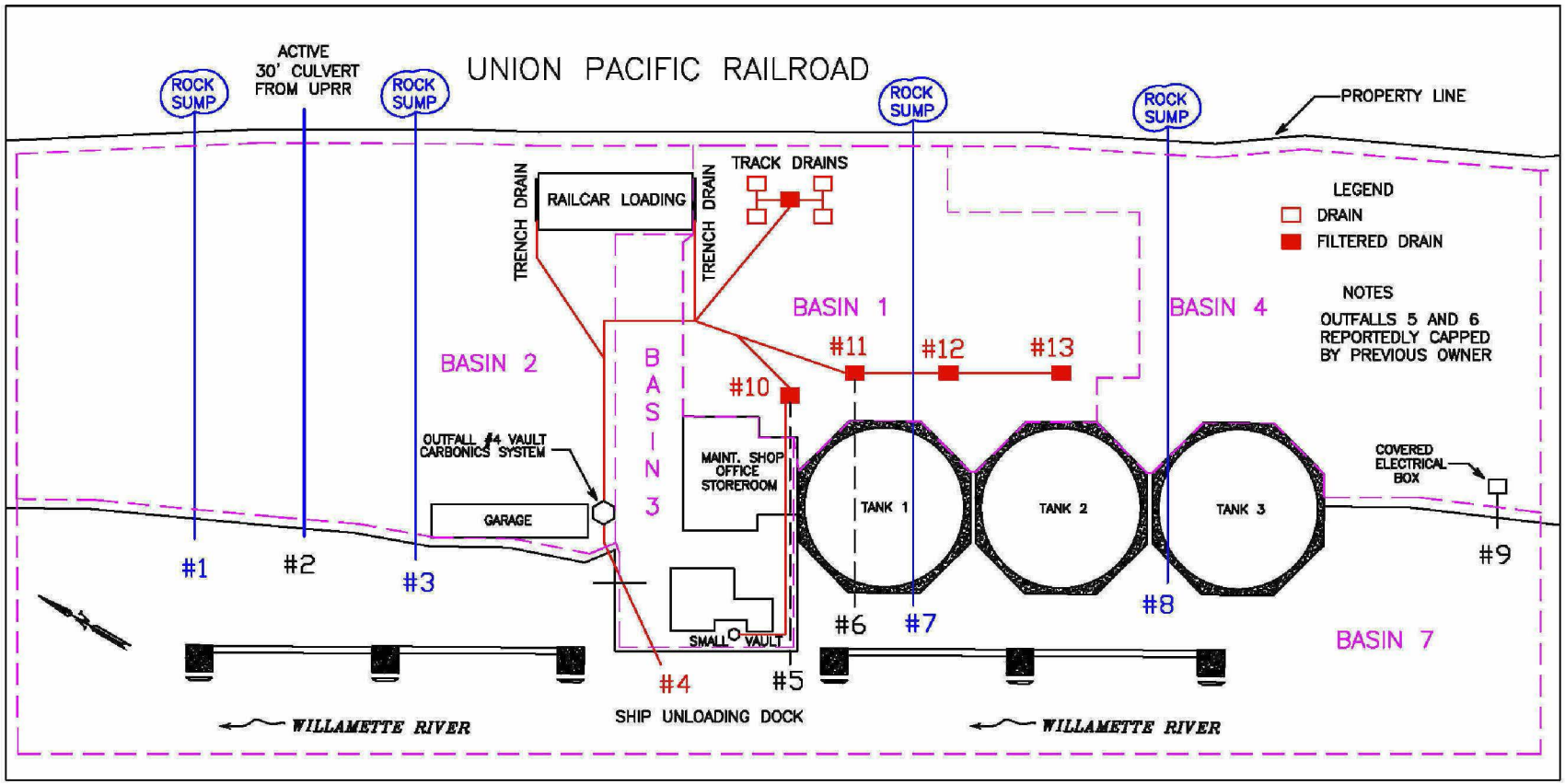
Terminal

Since 2008, storm water collected at the North Terminal Carbonics system was treated with an automated Carbonics system which includes pH sensors in the Outfall 4 vault. Ash Grove added a Carbonics system to the truck wash system located at the South Terminal in June 2011. Both Carbonics systems use dissolved carbon dioxide ("CO_2"), injected as bubbles into the treatment stream, to neutralize calcium carbonate (cement) dissolved in solution which neutralizes the pH of stormwater. Both systems are inspected monthly by trained Ash Grove personnel to ensure that an adequate volume of CO_2 is present in the CO_2 storage canisters. Prior to the installation of the Carbonics system at the South Terminal, stormwater was treated with hydrochloric acid ("HCl").

Updated drawings prepared for this response depict the drainage systems for the North and South Terminal properties and are included as Figure 13-1 and Figure 13-2, respectively.

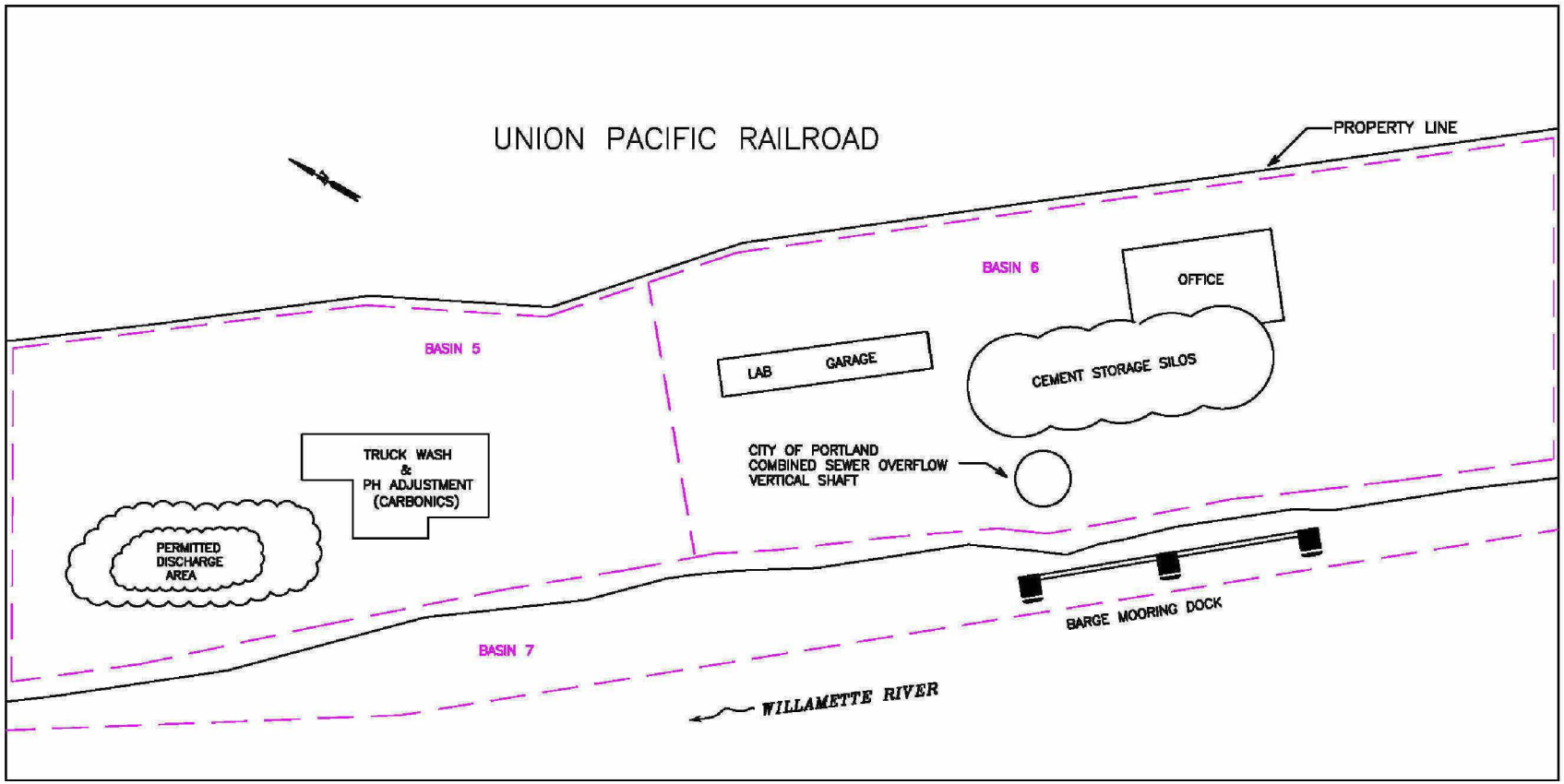
AGC0011734

FIGURE 13-2. DRAWING OF NORTH TERMINAL STORMWATER DRAINAGE SYSTEM



AGC0011735

FIGURE 13-3. DRAWING OF SOUTH TERMINAL STORMWATER DRAINAGE SYSTEM



AGC0011736

j. Provide the following information about each Property identified in response to Question 4: Subsurface disposal fields, UIC wells, and other underground structures (e.g., underground storage tanks); and where they are located, if they are still used, and how they were closed.

k. Any and all major additions, demolitions or changes on, under or about the Property, its physical structures or to the property itself (e.g., stormwater drainage, evacuation work); and any planned additions, demolitions or other changes to the Property;

Rivergate: Chronological changes in operations at the Rivergate facility since May 2008 are listed in Table 13-3.

TABLE 13-3. MAJOR CHANGES AT THE RIVERGATE FACILITY

Year	Change at the Facility
2008	• Demolished and removed the calcimatic kilns • Began receiving and transloading white limestone from Lafarge's Texada Quarry Ltd. for Columbia River Carbonates
2009	• Installed two new air slide dust collectors used to control particulate emissions associated with the truck loading of ag lime
2010	• Capped Outfall 001 with a steel plate to prevent discharge through Outfall 001
2011	• Installed a closed-loop glycol (antifreeze) refrigeration system eliminating 14,000 gallons per day of non-contact cooling water used in plant air compressors that was the primary source of irrigation water [1]

Terminal: Chronological changes in operations at the Terminal facility since May 2008 are listed in Table 13-4.

TABLE 13-4. MAJOR CHANGES AT THE TERMINAL FACILITY

Year	Changes at the Facility
2009	• Removed the rotary airlocks underneath each tank top dust collector, increasing the operational and maintenance efficiency (Ash Grove is now able to evacuate collected dust more easily)
2011	• Added a Carbonics pH neutralization system to the truck wash system at the South Terminal

l. All maps and drawings of the Property in your Possession;

[1] If a tempestuous storm necessitates the discharge of irrigation water to the field, pH will be tested before the water is discharged. A wastewater characterization sampling plan [AGC0012042-AGC0012043] has been completed, submitted to ODEQ, and accepted by ODEQ, as evidenced by the agency's acceptance letter on July 6, 2011 by Mer Wiren, P.E. [AGC0012044].

m. All aerial photographs of the Property in your possession.

Rivergate

Ash Grove has aerial photographs of the Rivergate facility taken since May 2008. This addendum's appendix includes "before" and "after" photographs that depict the demolition and removal of the calcimatic kilns and kiln control room [AGC0012045-AGC0012046].

Terminal

Ash Grove has aerial photographs of the North and South Terminal taken since May 2008. This addendum's appendix includes "before" and "after" photographs that depict the new rail unloading system and enclosed pipe conveyor [AGC0012047-AGC0012049].

14. For Properties adjacent to the Willamette River, provide specific information describing the river-ward boundary of private ownership and where state aquatic lands and/or state-management jurisdiction begins. Provide a map that delineates the river-ward boundary of each Property.

15. For each Property, provide all reports, information or data you have related to soil, water (ground and surface), or air quality and geology/hydrogeology at and about each Property. Provide copies of all documents containing such data and information, including both past and current aerial photographs as well as documents containing analysis or interpretation of such data.

16. Identify all past and present solid waste management units or areas where materials are or were in the past managed, treated, or disposed (e.g., waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) on each Property. For each such unit or area, provide the following information:

- **a. a map showing the unit/area's boundaries and the location of all known units/areas whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units/areas;**
- **b. dated aerial photograph of the site showing each unit/area;**
- **c. the type of unit/area (e.g., storage area, landfill, waste pile, etc.), and the dimensions of the unit/area;**
- **d. the dates that the unit/area was in use;**
- **e. the purpose and past usage (e.g., storage, spill containment, etc.);**

f. the quantity and types of materials (hazardous substances and any other chemicals) located in each unit/area; and

Rivergate

An updated site plan showing the location of material storage areas can be found in this addendum's appendix [AGC0012050]. The updated site plan shows the removal of the kilns after they were decommissioned in 2006. Since the October 2008 CERCLA § 104(e) response, new electronics recycling storage containers have been located along the South wall of the maintenance shop.

Terminal

North Terminal Silos: Since May 2008, in addition to cement, blast furnace slag has been stored in the three (3) steel storage silos.

g. the construction (materials, composition), volume, size, dates of cleaning, and condition of each unit/area

Rivergate

The Rivergate facility site plan included in this addendum's appendix identifies the location of each material storage area, process area, and solid waste management unit, as well as the associated conveyance systems.

Terminal

Changes to the solid waste management units and areas where materials are or were stored at the Terminal facility since May 2008 are described below. A facility layout showing the location of the material storage areas was included in the October 2008 CERCLA § 104(e) response [AGC0002668-AGC0002673].

- In June 2011, Ash Grove removed a 125 gallon propane tank next to the South Terminal concrete silos. Ash Grove now stores propane in two (2) 5-gallon containers. Propane in the 125-gallon tank was not exposed to rainfall, nor is the propane in the 5-gallon containers.
- Compressed Gas Cylinders: Since 2008, one (1) CO_2 cylinder at the North Terminal has been used as part of the Carbonics system. Beginning in 2011, two (2) CO_2 cylinders have been used as part of each Terminal's Carbonics system. Gases in these compressed gas cylinders are not exposed to rainfall.

17. If the unit/area described above is no longer in use, how was such unit/area closed and what actions were taken to prevent or address potential or actual release of waste constituents from the unit/area.

Rivergate

The above ground used oil storage tanks, one (1) 425,000-gallon tank and one (1) 30,000-gallon tank, are no longer in operation at the Rivergate facility. The tanks were used for the storage of used oil from 1988 until the kilns were decommissioned in May 2006 and since this time have remained idle. These tanks were drained in 2010 by Oil Re-Refining and the contents were recycled. The tanks are currently idle and contain less than one (1) foot of oil.

Terminal

The 125-gallon propane tank is no longer in operation at the Terminal facility. The propane tank was removed in June 2011. Propane is now stored in two (2) 5-gallon containers.

18. For each property, provide the following information regarding any current or former sewer or storm sewer lines or combined sanitary/storm sewer lines, drains, ditches, or tributaries discharging into the Willamette River:

a. the location and nature of each sewer line, drain, ditch, or tributary.

b. the date of construction of each sewer line, drain, ditch or tributary;

c. whether each sewer line or drain was ever connected to a main trunk line;

d. whether each sewer line, drain, ditch, or tributary drained any hazardous substance, waste, material or other process residue to the Willamette River; and

e. provide any documentation regarding but not limited to the following on any and all outfalls to the Willamette River which are located within the boundaries of the Property(ies). Your response should include but not be limited to: (i) The area serviced by the outfalls; and (ii) the type of outfall (i.e. stormwater or single facility operational).

Terminal

There are a total of eight (8) outfalls at the Terminal facility. Seven (7) of the eight (8) outfalls that traverse under the Terminal property originate off-site and Ash Grove neither owns, controls, nor uses these outfalls.

Based on interviews with Ash Grove personnel, Outfalls 1 and 3 were filled with slurry (i.e., plugged) under the direction the previous owner.

Outfall 2 is an active outfall which Ash Grove understands discharges stormwater from the adjacent Union Pacific Railroad ("UPRR") property. No stormwater from Ash Grove enters the line at any point, and UPRR maintains an easement on this line. Ash Grove has not inspected Outfall 2 and has no knowledge of presence or absence of water discharged from this outfall.

Outfall 4 is an active outfall that is controlled and used by Ash Grove. Details regarding Outfall 4 can be found in the responses to Question Nos. 13i, 19, and 51.

Outfalls 5 and 6 were capped and plugged in November 2000 by a prior owner.

Outfalls 7 and 8 are attached to corrugated metal pipes that terminate outside of the Terminal property line and which run under the Terminal property. No stormwater from Ash Grove enters the line at any point.

On March 1, 2011, Ash Grove personnel inspected four (4) of these outfalls, Outfalls 1, 3, 7 and 8, to see whether they were discharging any water. The Portland area received 1.46 inches of rain on February 28, 2011 and an additional 0.60 inches of rain during the day of the inspection. Taken together, those two (2) days of rain represent approximately five percent (5%) of the total average annual rainfall in Portland. No water was flowing from any of these outfalls. Ash Grove concluded that the inspected Outfalls 1, 3, 7, and 8 do not currently discharge stormwater to the Willamette River based upon the rainfall and absence of flow.

19. Provide copies of any stormwater or property drainage studies, including data from sampling, conducted at these Properties on stormwater, sheet flow, or surface water runoff. Also provide copies of any Stormwater Pollution Prevention, Maintenance Plans, or Spill Plans developed for different operations during the Respondent's operation of each Property.

Rivergate

Ash Grove received NPDES Permit No. 102465 [AGC0012001-AGC0012014] in May 2011. The NPDES Permit requires pH testing of any irrigation water routed to the fields in the southeast quadrant of the site, approximately a quarter mile away from the Willamette River. Currently, only rainwater runoff at the Rivergate facility is collected in settling basins and is applied as irrigation to these fields. Per the permit requirements, Ash Grove measures the pH once per month when water is discharged to the field. Sampling results are included in this addendum's appendix [AGC0012051-AGC0012072].

Terminal

Table 19-1 identifies sampling data from Ash Grove's NPDES Stormwater Discharge Permit No. 1200-Z issued on August 29, 2012 [AGC0012073-AGC0012168]. Table 19-2 identifies sampling data from the Terminal facility. Copies of each of these documents are included in this addendum's appendix.

TABLE 19-1. TERMINAL STUDIES AND SAMPLING DATA THAT RELATES TO STORMWATER, SHEET FLOW, OR SURFACE WATER RUNOFF

Date	Document Title	Description
June 30, 2011	Industrial Stormwater DMR – 1200-Z Permit	This spreadsheet contains the results of quarterly stormwater testing for total oil and grease, pH, total suspended solids, and metals (copper, lead, and zinc) at Outfall 4 between July 1, 2007 and June 30, 2011. [AGC0012169-AGC0012177]. Monthly visual observations from Outfall 4 are also included. The oil and grease concentration measured on February 23, 2009 of 12.7 milligram per liter ("mg/L") exceeded the ten (10) mg/L benchmark. There have been no exceedances since then.
July 1, 2011	Industrial Stormwater DMR – 1200-Z Permit	This spreadsheet covers operations at the Terminal facility from July 1, 2011 to March 31, 2013 [AGC0012178-AGC0012179]. An inspection of the Terminal on December 4, 2012 by the City of Portland stated that the site was clean and there were no issues of issues of non-compliance observed during the inspection [AGC0012180-AGC0012181].
February 22, 2013	March 2013 Industrial Stormwater Analytical Report	The Terminal facility's 1200-Z permit, effective July 1, 2012, requires analysis of stormwater for a variety of additional constituents for the first year. This data is collected for informational purposes, not as measures of compliance. Data collected during the second year of the 1200-Z permit, which began on July 1, 2013, will be averaged and compared to the regulatory benchmarks to later determine if any corrective actions are required.

TABLE 19-2. TERMINAL STORMWATER POLLUTION PREVENTION PLANS, MAINTENANCE PLANS, OR SPILL PLANS

Date	Document Title	Description
November 23, 2011	Spill Prevention Control and Countermeasure Plan ("SPCC") for Ash Grove	5-year plan review and evaluation of the SPCC by Glenn Dollar, Ash Grove [AGC0012182-AGC0012216] the NPDES Permit No. 102465, Schedule D Special Condition Six (6) [AGC0012001].
March 31, 2012	Stormwater Pollution Control Plan ("SWPCP")	SWPCP for Terminal, Permit File No. 107213 [AGC0012217-AGC0012227].

20. Describe the nature of your operations or business activities at each Property. If the operation or business activity changed over time, please identify each separate operation or activity, the dates when each operation or activity started and, if applicable, ceased.

The U.S. economic downturn has affected Ash Grove in numerous ways. The downturn began in 2008 just prior to the submittal of the October 2008 CERCLA § 104(e) response so its effect on Ash Grove operations is not described in the October 2008 CERCLA § 104(e) response.

Operations at both the Rivergate and Terminal facilities have been limited since October 2008 due to the depressed economy.

Operational changes specific to each site are described below.

Rivergate

Material quantities, including raw materials and products and byproducts, maintenance and laboratory materials, and materials shipped off-site have decreased substantially since October 2008. Waste volumes and fuel use have also decreased substantially. These decreases are quantified in Table 21-1.

Air emissions emitted by the Rivergate facility have decreased concurrently with material throughput decreases.

Personnel at the Rivergate facility have been reduced from forty-three (43) to twenty (20) full-time employees.

Terminal

Ash Grove installed a railcar unloading system at the North Terminal in 2009. Unloading operations began in 2009 and are ongoing.

Material quantities, including raw materials and products and byproducts, maintenance and laboratory materials, and materials shipped off-site have decreased substantially since October 2008. Waste volumes and fuel use have also decreased substantially. These decreases are quantified in Table 21-2.

The number of vessels unloading material at the North Terminal has decreased significantly. No cement vessels have unloaded material since October 2008, and only four (4) blast furnace slag vessels have unloaded material since Ash Grove began unloading vessels at the North Terminal in 2007. These numbers represent a significant reduction in the rate of vessels arriving and unloading material at the Terminal facility since the first vessel arrived in April 2007.

Air emissions emitted by the Terminal facility have decreased concurrently with product throughput decreases.

Personnel at the Terminal facility have been reduced from twelve (12) to four (4) full-time employees.

21. At each Property, did you ever use, purchase, generate, store, treat, dispose, or otherwise handle any waste, or material? If the answer to the preceding questions is question is anything but an unqualified "no," identify:

- **a. in general terms, the nature and quantity of the waste or material so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled;**
- **b. the chemical composition, characteristics, physical state (e.g., solid, liquid) of each waste or material so transported, used purchased, generated, stored, treated, transported, disposed, or otherwise handled;**
- **c. how each such waste or material was used, purchased, generated, stored, treated, transported, disposed, or otherwise handled by you; and**
- **d. the quantity of each such waste or material used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you**

Table 21-1 and Table 21-2 quantify on an annual basis wastes and materials transported, used, purchased, generated, stored, treated, disposed, or otherwise handled at the Rivergate and Terminal facility, respectively, since May 2008.

In general, waste and material quantities at the Rivergate and Terminal facilities have decreased substantially since May 2008 due to the U.S. economic downturn. The annual quantities presented in Tables 21-1 and 21-2 illustrate the impacts of the ongoing economic downturn. Specifically, the tables compare 2011 operations to operations during the 2005 calendar year. The 2005 annual quantities represent peak production prior to the recession. The 2011 annual quantities are representative of operations since the economic downturn. If relevant quantity information is available for both 2005 and 2011, these tables identify quantity increases and decreases associated with the recession. Where quantity information is unavailable, or if the economic downturn did not impact annual waste and material quantities, then a single entry is included in Tables 21-1 and 21-2 that represents current operations. Changes in operation over time at the Rivergate and Terminal facilities are described in further detail in the response to Question No. 20.

TABLE 21-1. RIVERGATE MATERIALS[2]

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Raw Materials				
Limestone	Purchased from quarries and transported to the facility via barges.	Used as a raw material.	Transported via conveyance system.	Decreased from 536,437 to 373,483 tons.
Dolomite	Purchased from quarries and transported to the facility via barges.	Used as a raw material.	Transported via conveyance system.	Decreased from 43,479 to 30,220 tons.
Intermediate Products and Products				
Limestone (Commercial Rock).	Generated on-site.	Shipped to customers.	Transported via conveyance system.	Decreased from 11,292 to 6,379 tons.
Limestone Fines	Generated on-site.	Shipped to customers.	Transported via conveyance system.	Material is reclaimed and blended with limestone to produce ag lime. Material is neither weighed nor measured.
Ground Product [3]	Generated on-site.	Shipped to customers.	Transported via conveyance	Decreased from 456,574 to 369,900 tons.
Quicklime	Generated on-site.	Shipped to customers.	Transported via conveyance system.	Decreased from 57,969 to zero (0) tons due to shutdown of kilns in 2006.
Hydrated Lime	Generated on-site.	Shipped to customers.	Transported via conveyance	Decreased from 15,567 to zero (0) tons.[4]
Graymont Quicklime	Received by rail beginning June 2006.	Shipped to customers.	Transported via conveyance	Increased from zero (0) to 44,350 tons.
Graymont Hydrated Lime[5]	Generated on-site.	Shipped to customers.	Transported via conveyance	Increased from zero (0) to 26,648 tons.

[2] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. As such, material storage and disposal are not addressed in this table.

[3] The ground product annual quantity is the sum of ag-lime, dolomite, and limestone flour.

[4] Due to the kilns shutdown and Graymont taking over production of hydrated lime in June 2006, the Ash Grove annual quantities decreased to zero (0).

[5] Graymont operates under the umbrella of Ash Grove's ACDP permit and is required to submit annual product tonnage information to Ash Grove to demonstrate permit compliance.

TABLE 21-1. RIVERGATE MATERIALS[6] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Fuels				
No. 2 Fuel Oil (Diesel)	Purchased from McCall Oil and Chemical.	Currently used to fuel motorized vehicles and used to fire kilns. See response to Question No. 47.	McCall Oil and Chemical transported to facility.	Approximately 16,000 gallons/year (no change).
Used Oil	Received from various suppliers.	Used to fire kilns. See response to Question No. 47.	Various haulers transported to facility.	Decreased from 2,081,568 to zero (0) gallons per year due to shutdown of kilns in 2006.
Unleaded Gasoline	Purchased from Don Thomas Petroleum Inc.	Used to fuel motorized vehicles.	Don Thomas Petroleum transported to facility.	Approximately 2,700 gallons per year (no change).
Propane	Purchased from Vancouver Welding and Air Gas.	Maintenance for Cutting and Burning.	Vancouver Welding and Air Gas transported to facility.	Approximately 240 cubic feet per year (no change).
Natural Gas	Purchased from IGI Resources.	Used to fire kilns and mills.	Transported to facility via underground pipeline.	Decreased from 46,004 to 13,497 net million British thermal units ("MMBtu") due to shutdown of kilns in 2006.
Landfill Gas	Received from the St. Johns Landfill.	Used to fire kilns and mills.	Transported to facility via underground pipeline.	Decreased from 190,474 to 38,567 net MMBtu due to shutdown of kilns in 2006.
Acetylene	Purchased from Vancouver Welding and Air Gas.	Maintenance for Cutting and Burning.	Vancouver Welding and Air Gas transported to facility.	Decreased from approximately 5,000 to 1,400 cubic feet per year
Coal	Purchased from Smokey River Coal Vancouver BC.	Used to fire kilns.	Transported to facility by barge.	None used since 1990.

[6] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. As such, material storage and disposal are not addressed in this table.

TABLE 21-1. RIVERGATE MATERIALS[7] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Maintenance Materials				
Gear Oil / Lubricants	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Don Thomas Petroleum Inc. transported to facility.	Decreased from approximately 5,000 to 2,200 lbs per year.
Solvent	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Don Thomas Petroleum Inc. transported to facility.	Decreased from approximately seventy-five (75) to fifty (50) gallons per year.
Hydraulic Oil	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Don Thomas Petroleum Inc. transported to facility.	Decreased from approximately 250 to 130 gallons per year.
Motor Oil	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Don Thomas Petroleum Inc. transported to facility.	Decreased from approximately 410 to 174 gallons per year.
Transmission Fluid	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Don Thomas Petroleum Inc. transported to facility.	Decreased from approximately 340 to 165 gallons per year.
Paint / Paint Thinner	Purchased from various suppliers.	Used for plant and equipment maintenance	Various suppliers & Ash Grove personnel transported to facility.	Approximately ten (10) gallons per year (no change).
Oxygen	Purchased from Vancouver Welding and Air Gas.	Used for maintenance cutting and burning.	Vancouver Welding and Air Gas transported to facility.	Decreased from approximately 10,000 to 4,000 cubic feet per year.
Antifreeze	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Don Thomas Petroleum Inc. transported to facility.	Approximately fifty-five (55) gallons per year (no change).

[7] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. As such, material storage and disposal are not addressed in this table.

TABLE 21-1. RIVERGATE MATERIALS[8] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Laboratory Materials				
Conductivity Solution	Purchased for on-site use from Univar & various suppliers.	Used in material testing.	Delivery company transported to facility.	One (1) liter each per year, pH 4, pH 7, and pH 10 solution (no change due to same sample analyses and frequency).
Sodium Hypochlorite	Purchased for on-site use from Univar & various suppliers.	Used in material testing.	Delivery company transported to facility.	Decreased from approximately 194 to 125 gallons per year.
Vinegar	Purchased from Bonneau Products and various suppliers.	Used in material testing.	Delivery company transported to facility.	Decreased from approximately 290 to 110 gallons per year.
HCl	Purchased for on-site use from Univar & various suppliers.	Used in material testing.	Delivery company transported to facility.	Decreased from approximately 300 to zero (0) gallons per year since HCl no longer used in material testing.[9]
General Trash	Generated on-site during normal operation.	N/A	Waste Management Inc. transported offsite.	Decreased from 160 to 120 cubic yards per year.

[8] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[9] Since the shutdown of the kilns in 2006, HCl was no longer required to perform product quality assurance and quality control sample analysis such as acid-base neutralization titrations.

TABLE 21-1. RIVERGATE MATERIALS[10] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Materials Shipped Off-site				
Neutralized Laboratory Wastes	Generated on-site during normal operation.	N/A	Disposed of in the laboratory drains to be treated at the local Publically Owned Treatment Works ("POTW").	Small amounts as needed.[11]
Sewage	Generated on-site during normal operation.	N/A	Prior to 2002, treated on-site in a septic system. Since 2002, discharges to the local POTW.	Decreased from 2,100 to 1,100 cubic feet per month due to kiln shutdown and personnel reductions in 2006.
Wood Waste	Generated on-site during normal operation.	N/A	Waste Management Inc. transported offsite.	Total included in General Trash.
Landscaping Wastes	Generated on-site during normal operation.	N/A	Ash Grove personnel transported to American Composting.	Total included in General Trash.
Process Residue (waste lime, waste hydrate)	Generated on-site during normal operation.	Added to agricultural product from 1986 to the present.	Records indicate that during early operation, prior to 1986, transported offsite, and prior to 1973, discharged to the Willamette River under a discharge permit.	Material is neither weighed nor measured. Since 1986, material is reclaimed and blended with limestone to produce Ag lime.
Baghouse Dust	Generated on-site during normal operation.	Added to agricultural product from 1986 to the present.	Handled on-site by Ash Grove personnel. Records indicate that during early operation, prior to 1986, transported offsite, and prior to 1973, discharged to the Willamette River under a discharge permit.	Material is neither weighed nor measured when it is reclaimed and blended with limestone to produce Ag lime.

[10] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[11] The quantity of neutralized laboratory wastes is not measured but has significantly reduced between 2005 and 2011 due to the elimination of the kiln department and the corresponding reduction in the number of product QA/QC laboratory analyses being performed.

TABLE 21-1. RIVERGATE MATERIALS[12] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Materials Shipped Off-site				
Settling Basin Sediment	Generated on-site during routine cleaning of the settling basins.	Currently added to agricultural product.	Removed from settling basins with the use of a loader.	Material is neither weighed nor measured. Since 1986, material is reclaimed and blended with limestone to produce Ag lime.
Steel and Metal Scraps	Generated on-site during normal operation.	Recycled metal scraps.	Schnitzer Steel transported for recycling.	Decreased from approximately 80,000 to 55,000 lbs per year.
Floor Dry/ Absorbent Materials	Generated on-site during normal operation.	Maintenance clean-up.	Oil Re-refining transported for disposal/recycling.	Decreased from approximately ten (10) 55-gallon drums per year to five (5) 55-gallon drums per year.
Asbestos Containing Material	Purchased and installed during initial plant construction (1963-1964).	Used as siding and insulation.	Non-friable transported to Grabhorn Landfill. Friable transported to Wasco County Landfill.	Four (4) events prior to May 2008. One (1) event after May 2008.[13]
Polychlorinated biphenyl ("PCB") Oil and Flush Oil from Transformers	Purchased for on-site use.	Used as an electrical insulator.	Eastern Electric transported for disposal.	Permanently removed from site in 1988.
Capacitors Containing Oil with some PCBs	Purchased for on-site use.	Used to store energy.	Eastern Electric transported for disposal.	Permanently removed from site in 1988.

[12] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[13] The post May 2008 event occurred on September 16, 2010. A 120 lb steel pipe with asbestos insulation was removed during maintenance. Record of the removal of this asbestos-containing material is included in this addendum's appendix [AGC0012228].

TABLE 21-1. RIVERGATE MATERIALS[14] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Materials Shipped Off-site (Continued)				
Electronic Components	Purchased for on-site use.	Used as work aid.	Transported to Technology Conservation Group Recycling for recycling.	An average of one (1) four (4) foot by four (4) foot pallet of electronic components are recycled annually (no change).
Used Batteries	Purchased for on-site use.	Used as batteries.	Ash Grove personnel transported to United Batteries for recycle/disposal.	Average fifty (50) lbs recycled per year (no change).
Mercury Thermostats/ Switches	Purchased for on-site use.	Used as thermostats or switches.	Ash Grove personnel transported to Metro Central Disposal for recycling.	Disposal of this material has occurred twice since 2005; 2.63 lbs recycled in 2008 and 0.0044 lbs recycled in 2010.[15]
Shop Rags	Generated on-site during normal operation.	Maintenance – Grease rags.	Cintas Corporation transported offsite to be cleaned and re-used.	Decreased from approximately 10,000 to 2,500 rags per year.[16]
Oily Spill Material/Solids (Cleanup Material)	Generated on-site during normal operation.	Cleanup material.	Transported to Oil-Re-refining for disposal/recycling.	Total included in Floor Dry/Absorbent Materials, above.
Used Oil	Generated on-site during normal operation.	Machine and Equipment lubrication.	Oil Re-refining transported for recycling.	Decreased from approximately 360 to 225 gallons per year.
Used Oil Filters	Generated on-site during normal operation.	Mobile Equipment and Machine Maintenance.	Oil Re-refining transported for recycling.	Shipments vary between zero (0) to three (3) 55-gallon drums per year (no change).
Used Grease	Generated on-site during normal operation.	N/A	N/A	Accounted for in Shop Rags and Floor Dry/Absorbent Materials.

[14] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[15] Mercury was recycled in 2008 due to the kilns demolition. The 2010 recycling event followed removal of obsolete electrical switchgear. Mercury switches are still present in the plant and are recycled as they are replaced.

[16] Decrease in shop rags is due to the kilns shutdown and reduction in workforce in 2006.

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TABLE 21-1. RIVERGATE MATERIALS[17] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation, and Handling	Annual Quantity Information
Materials Shipped Off-site (Continued)				
Used Antifreeze	Generated on-site during normal operation.	Mobile Equipment Maintenance.	Transported to Oil Re-refining for recycling.	Average of one (one) 55-gallon drum recycled annually (no change).
Used Parts Cleaner Solvent	Generated on-site during normal operation.	Parts cleaning.	Transported to Oil-Re-refining for recycling.	Average of twenty-five (25) gallons annually (no change).
Dredge Spoils	Not generated on-site. Removed from Willamette River.	NA	See Response to Question No. 22.	No dredging since 2008.
Used Light Bulbs	Generated on-site during normal operation.	Used in lights throughout the facility.	Veolia Environmental Services transported to a Waste Management landfill in Arlington, WA for disposal.	Average of fifty (50) bulbs recycled annually (no change).

[17] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

TABLE 21-2. TERMINAL MATERIALS[18]

Material	Purchase or Generation	Use	Treatment, Transportation and Handling	Quantity Information
Products				
Cement	N/A	N/A	Transported to and from the facility.	The quantities of these materials on-site is confidential business information proprietary to Ash Grove and has therefore been withheld; however, no cement vessels and only four (4) slag vessels have been unloaded since October 2008.
Blast Furnace Slag [19]	N/A	N/A	Transported to and from the facility.	
Fuels				
Propane	Purchased from Amerigas.	Mobile equipment.	Transported by vendor to facility.	Decreased from approximately twenty (20) to ten (10) gallons per month.
Diesel	Purchased from Don Thomas Petroleum Inc.	Mobile equipment.	Transported by vendor to facility.	Decreased from 3,095 gallons in 2007 to 300 gallons in 2011.
Gasoline	Purchased from local 76 Station.	Line handling boat, grounds, maintenance equipment.	Ash Grove personnel transported to facility.	Eighty (80) gallons per year (no change).

[18] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[19] Ash Grove conducted a chemical analysis in 2009 that showed blast furnace slag to be of comparable particle size and consistency to cement. According to a March 23, 2009 email from Kathy Amidon at ODEQ [AGC0011880-AGC0011881], the handling of blast furnace slag at the Terminal Facility does not necessitate changes to the Terminal ACDP.

TABLE 21-2. TERMINAL MATERIALS[20] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation and Handling	Quantity Information
Maintenance Materials				
Automatic Transmission Fluid	Purchased from Car Quest/Don Thomas Petroleum Inc.	Used to maintain equipment.	Vendor transported to facility.	Decreased from sixty (60) to twelve (12) gallons per year.
Solvents (including aerosol cans and biodegradable citrus spray)	Purchased from Dynaco Inc.	Used to clean equipment.	Vendor transported to facility.	Decreased from seventy-eight (78) to thirty-six (36) lbs per year.
Antifreeze	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Vendor transported to facility.	Decreased from eighteen (18) to zero (0) gallons per year, since vendors now service mobile equipment.
Lubricants	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment	Vendor transported to facility.	Decreased from sixty (60) to thirty-five (35) lbs per year
Muriatic Acid [21]	Purchased from Mt. Hood Chemical.	Used for pH adjustment in the truck wash.	Vendor transported to truck in fifty-five (55) gallon drums.	Decreased from 990 to zero (0) gallons per year because of the conversion to Carbonics systems.
Gear Compound	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Vendors transported to facility.	Decreased from fifty (50) to twenty (20) gallons per year.
Motor Oil	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Vendors transported to facility.	Decreased from fifty-five (55) to zero (0) gallons per year because vendors now service mobile equipment.
Oxygen	Purchased from Amerigas.	Used to maintain equipment.	Vendors transported to facility.	Approximately 250 cubic feet per year (no change).

[20] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[21] Muriatic acid consists of 35% HCl and was used for storm and wash water neutralization at the Terminal. A second Carbonics system, added in June 2011, obviated the use of HCl in truck wash water pH neutralization. Muriatic acid was removed from the Terminal Facility in October 2011 and is no longer stored on-site.

TABLE 21-2. TERMINAL MATERIALS[22] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation and Handling	Quantity Information
Maintenance Materials (Continued)				
Acetylene	Purchased from Airgas.	Used to maintain equipment.	Vendor transported to facility.	Approximately 350 cubic feet per year (no change).
Argon	Purchased from Airgas.	Used to maintain equipment.	Vendor transported to facility.	Argon: Approximately 350 cubic feet per year. Argon/CO_2: Approximately 350 cubic feet per year.
Hydraulic Oil	Purchased from Don Thomas Petroleum Inc.	Used to maintain equipment.	Vendor transported to facility.	Decreased from 110 to twenty-five (25) gallons per year.
CO_2 [23]	Praxair.	pH adjustment.	Vendor transported to facility.	Increased from zero (0) to an average of 3,200 lbs used per year.
Laboratory Materials				
Broken Concrete Cylinder Debris	Generated on-site.	Used in material testing.	Dump box to south bunker.	Decreased from approximately seven and a half (7.5) to four (4) cubic feet generated per month.
Hydrated Lime	Ash Grove Rivergate Plant.	Used in material testing.	Dump box to south bunker.	Approximately ten (10) lbs per year (no change).
Cement Additives	Purchased from Master Builders & WR Grace.	Used in material testing.	Delivered by vendor.	Approximately twenty (20) gallons of additives are located on-site at any given time (no change).

[22] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[23] In 2008, a Carbonics system was installed at the North Terminal to treat stormwater prior to its discharge through Outfall 4. Ash Grove began using CO_2 in a second Carbonics system at the South Terminal in June 2011 to treat truck wash wash prior to its being conveyed to the permitted discharge area. The Carbonics system uses dissolved CO_2 to neutralize the pH of the water stream. Prior to the installation of the Carbonics system at the South Terminal, HCl was used to adjust wash water pH, but is no longer stored at the Terminal Facility. Both Carbonics systems use dissolved CO_2 to neutralize the pH of the water stream.

TABLE 21-2. TERMINAL MATERIALS[24] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation and Handling	Quantity Information
Laboratory Materials (Continued)				
South Terminal Lab Wash Water	Generated on-site.	Wash water, contains sand, gravel, and small amounts of concrete, cement powder, and concrete additives.	Collected in a 125 gallon poly tank and treated in the truck wash system.	Varies between 200 to 300 gallons per month (no change).
Materials Shipped Off-Site				
General Trash	Generated on-site.	N/A	Collected in containers provided by the disposal vendor (Waste Management, Inc.) and removed by the disposal vendor as needed.	One (1) 5-cubic yard dumpster at the North Terminal emptied once per week. One (1) 2-cubic yard dumpster at the South Terminal emptied once per week.
Used Oil	Generated on-site.	N/A	Spencer Environmental and Northwest Oils transported offsite.	Decreased from 375 to zero (0) gallons per year (vendors now service all used oil generated on-site).
South Terminal Sewage	Generated on-site.	South Terminal holding tank.	River City Environmental transported offsite.	Decreased from 18,000 to 15,000 gallons per year.
Used Oil Filters	Generated on-site.	Mobile equipment.	ORRCO transported offsite and stored in vendor drums.	Decreased from one fourth (1/4) to zero (0) drums per year since vendors now service all used oil generated on-site.

[24] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

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TABLE 21-2. TERMINAL MATERIALS[25] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation and Handling	Quantity Information
Materials Shipped Off-Site (Continued)				
Used Baghouse Filter Bags	Generated on-site.	Dust collection.	Collected in containers provided by the disposal vendor (Waste Management, Inc.) and removed by the disposal vendor as needed.	An annual average of 408 bags is replaced (no change).
Used Antifreeze	Generated on-site.	Mobile equipment.	Northwest Oils transported one-time disposal of prior owner's materials. Vendors service equipment used in Ash Grove's operation and are responsible for disposing of used antifreeze.	Decreased from approximately thirty (30) to zero (0) gallons. Vendors service all used antifreeze generated on-site.
Product Residue (Concrete Debris, Soil and Dirt, Cement Dust)	Generated on-site.	Residue.	Phillip Services Corporation, National Response Center ("NRC"), Accurate Concrete Company, and Columbia Metal Works Inc. transported offsite.	An annual average of 200 tons (no change).
Paint Related Materials	Generated on-site.	Used in facility maintenance.	Transported to Metro Central.	125 lbs in 2006 250 lbs in 2007 434 lbs in 2008 None since 2008.[26]
Truck Wash Sediment	Generated on-site during truck washing.	Residue.	Environmental Business Solutions, Inc. and Waste Express transported offsite.	Decreased from 10.6 to two (2) tons per year.

[25] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

[26] No paint related materials have been recycled since 2008. During 2008, Ash Grove completed recycling old paints inherited from CGAC.

TABLE 21-2. TERMINAL MATERIALS[27] (CONTINUED)

Material	Purchase or Generation	Use	Treatment, Transportation and Handling	Quantity Information
Materials Shipped Off-Site (Continued)				
Oily Water	Generated on-site by cleaning of the hydraulic secondary containment basin. An emergency cleanup occurred in September 2007. In February 2008, additional cleanup occurred. In 2011, a one-time maintenance cleaning occurred.	Residue.	Jammies Environmental transported offsite.	Prior to October 2008, one-time events cleaned up were 4,460 lbs on Sept.24, 2007, 2,460 lbs on Feb. 13, 2008, and 3,060 lbs on Feb.25, 2008 of oily water material [AGC0006196-AGC0006212]. After 2008, cleaning occurred on November 11, 2011 in which 1,145 gallons was vacuumed from the containment area [AGC0012229-AGC0012230].
Small Batteries	Generated on-site during normal operation.	Used in various equipment (e.g., flashlights) throughout the facility.	Off-site recycling/disposal has not yet taken place.	Batteries have been collected in a five gallon bucket since 2005. The batteries will be recycled/disposed of off-site when the bucket is filled. The bucket is not full yet.
Used Light Bulbs	Generated on-site during normal operation.	Used in lights throughout the facility.	Transported to the Rivergate facility, from where Veolia Environmental Services transported the used light bulbs to a Waste Management landfill in Arlington, WA for disposal.	Bulbs have been collected for recycling or disposal since 2002. Prior to this date, bulbs were disposed with general trash. Light bulbs in most light fixtures were replaced in the 2006 timeframe. Since that time, bulbs have been replaced as needed.

[27] Material storage is discussed in the responses to Question Nos. 16 and 17. Material disposal is discussed in the responses to Question Nos. 26, 27, 36, 37, 39, 40, 41, 42, and 43. Material storage and disposal are not included in this table.

22. Describe all activities at each Property that were conducted over, on, or adjacent to the Willamette River. Include in your description whether the activity involved hazardous substances, wastes, or materials and whether any such hazardous substances, wastes, or materials were discharged, spilled, disposed or, dropped, or otherwise came to be located in the Willamette River.

Rivergate

As noted in the October 2008 response to Question No. 64 of the CERCLA § 104(e) request, Ash Grove has contracted various companies to perform occasional maintenance dredging of the Willamette River adjacent to the Rivergate facility to remove sediment buildup that interferes with barge unloading. Ash Grove's October 2008 response to the CERCLA § 104(e) identified one (1) dredging event in 2007 [AGC0006116-AGC0006120]. Since October 2008, Ash Grove located a memorandum dated September 11, 1993 from Greg Speyer at Hickey Marine Enterprises, Inc. ("HME") to Dick Gable and Al Collinet at Ash Grove with soundings from the dredging event that took place in 1993 [AGC0001315-AGC0001316]. In addition, Ash Grove identified the January 17, 1992 U.S. Army Corps of Engineers ("Corps of Engineers") dredging permit No. 071-OYA-1-009249 [AGC0007284-AGC0007288].

In the 1993 dredging event, approximately 1,600 cubic yards of river sediment was removed.[28] The materials dredged in 1993 were taken to Ross Island Sand and Gravel for disposal. The Ross Island Sand and Gravel facility is located approximately one mile upstream from downtown Portland and is outside the Portland Harbor Investigation Area.

Ash Grove does not have sampling data for the 1993 dredging event and does not believe sediments were sampled before the 1993 dredging event.

Terminal

Forty-one (41) independent vessels were at lay berth between May 2008 and March 2013 at the Terminal while waiting for a loading or unloading berth elsewhere in the Portland Harbor. The vessel owners/operators or their contractors conduct fueling and maintenance activities on the Willamette River. Ash Grove neither directs nor controls these activities. Information regarding the specific dates of lay berth for each vessel can be found in this addendum's appendix [AGC0012231]. The revenue information for the lay berth activity between May 2008 and March 2013 are included on the CBI disk included with this submission.

There have been two (2) incidents since May 2008 that might be considered releases associated with lay berth rental; these incidents are described in detail in the response to Question No. 67.

There is a pier at the South Terminal. The pier was unused between the time it was constructed in 1994 and March 2012. Beginning in March 2012, Wilsonville Concrete, an Ash Grove customer with a marine barging and dredging division, has been using the pier at the South Terminal. Several barges, tugs and dredges have been moored at this structure. The customer's previous mooring facility was made inaccessible after the Corps of Engineers closed the locks at Willamette Falls in

[28] Per discussion between Glenn Dollar at Ash Grove and Greg Speyer at HME.

Oregon City, Oregon, in December 2011. The agreement with Wilsonville Concrete specifically prohibits bunkering and lightering operations; receiving fuels, lubricants or other hazardous materials; and, hot work (welding, oxyacetylene and electric work) without specific permission from Ash Grove. No fueling operations are allowed while these vessels are moored at the Ash Grove facility, and the tugs get fuel at other facilities on the river. Wilsonville Concrete performs occasional preventative maintenance on barges and tugs at the pier.

23. For each Property at which there was or is a mooring facility, dock, wharf or any over-water structure, provide a summary of over-water activities conducted at the structure, including, but not limited to, any material loading and unloading operations associated with vessels, material handling and storage practices, ship berthing and anchoring, ship fueling, and ship building, retrofitting, maintenance, and repair.

Terminal

The response to Question No. 22 describes lay berth activity at the Terminal facility. Refer to the response to Question No. 67 for a description of two (2) incidents since May 2008 associated with lay berth rental at the North Terminal and the subsequent clean-up.

24. Describe all activities conducted on leased aquatic lands at each Property. Include in your description whether the activity involved hazardous substances, waste(s), or materials and whether any such hazardous substances, waste(s), or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located on such leased aquatic lands.

25. Please describe the years of use, purpose, quantity, and duration of any application of pesticides or herbicides on each Property during the period of investigation (1937 - present). Provide the brand name of all pesticides or herbicides used.

26. Describe how wastes transported off the Property for disposal are and ever were handled, stored, and/or treated prior to transport to the disposal facility.

27. Has Respondent ever arranged for disposal or treatment or arranged for transportation for disposal or treatment of materials to any Property (including the Willamette River) within the Investigation Area? If so, please identify every Property that Respondent's materials were disposed or treated at in the Investigation Area. In addition, identify:

- **a. the persons with whom the Respondent made such arrangements;**
- **b. every date on which Respondent made such arrangements;**
- **c. the nature, including the chemical content, characteristics, physical state (e.g., solid, liquid), and quantity (volume and weight) of all materials involved in each such arrangement;**
- **d. in general terms, the nature and quantity of the non- hazardous materials involved in each such arrangement;**
- **e. in general terms, the nature and quantity of any hazardous materials involved in each such arrangement;**

f. **the owner of the materials involved in each such arrangement, if not Respondent;**
g. **all tests, analyses, analytical results or manifests concerning each hazardous material involved in such transactions;**
h. **the address(es) for each Property, precise locations at which each material involved in such transactions actually was disposed or treated;**
i. **the owner or operator of each facility at which hazardous or non-hazardous materials were arranged to be disposed at within the Investigation Area;**
j. **who selected the location to which the materials were to be disposed or treated;**
k. **who selected the Property as the location at which hazardous materials were to be disposed or treated; and**
l. **any records of such arrangement(s) and each shipment.**

28. Describe the plants and other buildings or structures where Respondent carried out its operations at each Property within the Investigation Area (excluding locations where ONLY clerical/office work was performed).

29. Provide a schematic diagram or flow chart that fully describes and/or illustrates the Respondent's operations on each Property.

30. Provide a brief description of the nature of Respondent's operations at each location on each Property including:

a. **The date such operations commenced and concluded; and**

b. **The types of work performed at each location, including but not limited to the industrial, chemical, or institutional processes undertaken at each location.**

Rivergate

See response to Question No. 5.

Terminal

The North and South Terminal were connected by a fully enclosed pipe conveyor, which became operational in 2009. The pipe is used for transferring cement and blast furnace slag between the sites.

Ash Grove began accepting blast furnace slag at the Terminal facility in 2009; however, due to the depressed economy, no cement and four (4) slag vessels have unloaded materials since May 2008, the cutoff for information included in Ash Grove's October 2008 CERCLA § 104(e) response.

31. If the nature or size of the Respondent's operations changed over time, describe those changes and the dates they occurred.

The U.S. economic downturn is the single most significant factor affecting the size of Ash Grove's operations since May 2008. The downturn began in October 2008 and, as such, is not characterized in Ash Grove's October 2008 CERCLA § 104(e) response. For a detailed description of the negative effect of the U.S. economic downturn on Ash Grove operations, refer to the response to Question No. 20.

32. List the types of raw materials used in Respondent's operations, the products manufactured, recycled, recovered, treated, or otherwise processed in these operations.

33. Provide copies of Material Safety Data Sheets (MSDS) for materials used in the Respondent's operations.

34. Describe the cleaning and maintenance of the equipment and machinery involved in operations including but not limited to:

In general, Ash Grove cleans and maintains equipment and machinery in accordance with manufacturer's recommendations and operations and maintenance ("O&M") plans. The O&M plans have not been included in this response, but can be provided upon request. It should be noted that the kilns were decommissioned in May 2006 and removed in 2008. Graymont has been operating storage silos, conveyors, and hydrating equipment, at Ash Grove's Rivergate facility since June 1, 2006. Ash Grove does not have information related to maintenance activities performed by Graymont on this equipment.

Diligent efforts were made to locate maintenance records for equipment and machinery at the Rivergate facility. Additional maintenance records were found after the submittal of Ash Grove's October 2008 CERCLA § 104(e) response. Based on the records reviewed for the Rivergate facility, the following specific maintenance activities have occurred during the specified time period:

Rivergate:

- Major maintenance performed on pollution control equipment during 2006
    - Replaced 100+ bags for Dust Collector 640.BF1 in Storage Building Dust Collector, 276.BF1, Ag Mill No. 4, Replaced all bags.
    - Replaced all bags for Dust Collector 240.BF1 in Ag Mill Silo
    - Replaced all bags for Dust Collector 63P.BF1 in Ag Mill Old Load out
    - Replaced all bags for Dust Collector 630.BF1 in Ag Scale Load Out
- Major maintenance performed on pollution control equipment during 2007
    - Replaced all bags for Duct Collector 276.BF1 in Ag Mill Truck Load Out
- Major maintenance performed on pollution control equipment during 2008
    - Replaced all bags for Dust Collector 246.BF1 in No. 1 Ag Mill Pulse Jet
    - Replaced all bags for Dust Collector 276.BF1 in AG Mill No. 4
    - Replaced all bags for Dust Collector 256.BF1 in No. 2 Ag Mill Pulse Jet
    - Replaced all bags for Dust Collector 631P.BF1 in Ag Mill Screws and Bucket Elevators
    - Replaced all bags for Dust Collector 630.BF1 in Ag Scale Load Out
- Major maintenance performed on pollution control equipment during 2009
    - Replaced all bags for Dust Collector 276.BF1 in Ag Mill No. 4

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    - Replaced all bags for Dust Collector 630.BF1 in Ag Scale Load Out
- Major maintenance performed on pollution control equipment during 2010
    - Replaced all bags for Dust Collector 276.BF1 in Ag Mill No. 4
    - Replaced all bags for Dust Collector 520.BF1 in Hydrate Wet/Dry
    - Replaced all bags for Dust Collector 610.BF1 in Hydrate Truck Load Out
    - Emptied bulk on spec used oil tank of residual kiln fuel oil – contents shipped to Oil Re-refining.
- Major maintenance performed on pollution control equipment during 2011
    - Replaced all bags for Dust Collector 630.BF1 in Ag Scale Load Out
    - Replaced all bags for Dust Collector 630.BF1 in Ag Truck Loading DC

North Terminal:

- 2008 to Present – Storm drain filters inspected every six (6) months and replaced as needed (averaging one (1) replacement per year).
- Major maintenance performed on pollution control equipment during 2006
    - Replaced all bags for Vessel Un-Loader Dust Collector 614.BF1
    - Replaced all bags for Un-loader Dust Collector 614.BF2
    - Replaced all bags for Silo No.1 Bin Vent 614.B3
    - Replaced all bags for Silo No. 2 Bin Vent 614.B4
    - Replaced all bags for Silo No. 3 Bin Vent 614.B5
    - Replaced all bags for Reclaim Dust Collector 611.BF2
    - Replaced all bags for Reclaim 2 Dust Collector 611.BF3
    - Replaced all bags for Load Out Area Dust Collector 611.BF1
- Major maintenance performed on pollution control equipment during 2007
    - Replaced all bags for Rail Load Out Dust Collector 611.BF1
- Major maintenance performed on pollution control equipment during 2008
    - Replaced all bags for Reclaim Dust Collector Fuller 611.BF2
    - Replaced all bags for Un-loader Dust Collector Fuller 614.BF2
    - Replaced all bags for Vessel Un-loader Dust Collector 614.BF1
- Major maintenance performed on pollution control equipment during 2009
    - During reporting year 2009 no major maintenance projects were performed on pollution control equipment.
- Major maintenance performed on pollution control equipment during 2010
    - 611.BF1 Rail Loadout Dust Collector 100% (96) Bag Replacement
    - 611.BF2 Reclaim Dust Collector 100% (196) Bag Replacement
    - Replaced all bags (36) Silo No. 1 Bin Vent 614.BF3
    - Replaced all bags (36) Silo No. 2 Bin Vent 614.BF4
    - Replaced all bags (36) Silo No. 3 Bin Vent 614.BF5
- Major maintenance performed on pollution control equipment during 2011
    - 614.BF1 Vessel Unloading Dust Collector 100% (192) Bag Replacement
    - 614.BF2 Conveyance to Storage Tanks Dust Collector 100% (372) Bag Replacement
- Major maintenance performed on pollution control equipment during 2012
    - No major pollution control repairs during 2012 at the Portland Terminal.

South Terminal:

- 1994 to Present – Periodically pumped waste from septic tank for disposal at a local waste treatment facility.
- Major maintenance performed on pollution control equipment during 2007
    - Replaced all bags for Truck Load Out Dust Collector 621.BF3
- Major maintenance performed on pollution control equipment during 2008
    - During reporting year 2008 no major maintenance projects were performed on pollution control equipment.
- Major maintenance performed on pollution control equipment during 2009
    - During reporting year 2009 no major maintenance projects were performed on pollution control equipment.
- Major maintenance performed on pollution control equipment during 2010
    - During reporting year 2010 no major maintenance projects were performed on pollution control equipment.
- Major maintenance performed on pollution control equipment during 2011
    - During reporting year 2011 no major maintenance projects were performed on pollution control equipment.
- Major maintenance performed on pollution control equipment during 2012
    - During reporting year 2012 no major maintenance projects were performed on pollution control equipment.

a. Types of materials used to clean/maintain this equipment/machinery
b. Monthly or annual quantity of each such material used

Average quantities of materials used to clean and maintain equipment at both the Rivergate and Terminal facilities are provided in the tables for the response to Question No. 21.

c. Types of materials spilled in Respondent's operations
d. Materials used to clean up those spills
e. Methods used to clean up those spills
f. Where the material used to clean spills were disposed of

35. Describe the methods used to clean up spills of liquid or solid materials during Respondent's operation.

An updated SPCC plan for the Terminal facility is provided in the response to Question No. 19. The plan describes the methods used to clean up spills of liquids and solid materials at the Terminal facility.

36. For each type of waste (including by-products) from Respondent's operations, including but not limited to all liquids, sludges, and solids, provide the following information:

- **a. its physical state;**
- **b. its nature and chemical composition;**
- **c. its color;**
- **d. its odor;**
- **e. the approximate monthly and annual volumes of each type of waste (using such measurements as gallons, cubic yards, pounds, etc.); and**
- **f. the dates (beginning & ending) during which each type of waste was produced by Respondent's operations.**

The quantity of wastes generated at the Rivergate and Terminal facilities has decreased significantly since 2008 due to the U.S. economic downturn. Quantities of wastes generated since 2009 are provided in Table 21-1 for Rivergate and in Table 21-2 for Terminal.

37. Provide a schematic diagram that indicates which part of Respondent's operations generated each type of waste, including but not limited to wastes generated by cleaning and maintenance of equipment and machinery and wastes resulting from spills of liquid materials.

Rivergate:

A schematic diagram is included in this addendum's appendix [AGC0012232]. The schematic diagram has been updated since May 2008 due to the demolition and removal of the calcimatic kilns and kiln department.

Terminal:

A schematic diagram is included in this addendum's appendix [AGC0012233].

38. Identify all individuals who currently have and those who have had responsibility for Respondent's environmental matters (e.g. responsibility for the disposal, treatment, storage, recycling, or sale of Respondent's wastes). Also provide each individual's job title, duties, dates performing those duties, supervisors for those duties, current position or the date of the individual's resignation, and the nature of the information possessed by such individuals concerning Respondent's waste management.

39. For each type of waste describe Respondent's contracts, agreements, or other arrangements for its disposal, treatment, or recycling.

40. Provide copies of such contracts and other documents reflecting such agreements or arrangements, Including, but not limited to the following:

- **a. state where Respondent sent each type of its waste for disposal, treatment, or recycling;**

b. identify all entities and individuals who picked up waste from Respondent or who otherwise transported the waste away from Respondent's operations (these companies and individuals shall be called "Waste Carriers" for purposes of this Information Request);

c. if Respondent transported any of its wastes away from its operations, please so indicate;

d. for each type of waste specify which Waste Carrier picked it up;

e. indicate the ultimate disposal/recycling/treatment location for each type of waste;

f. provide all documents indicating the ultimate disposal/recycling/treatment location for each type of waste; and

g. state the basis for and provide any documents supporting the answer to the previous question.

TABLE 40-1. RIVERGATE WASTE DISPOSAL

Waste	Description of Disposal Arrangements	Disposal, Treatment, or Recycling Location	Waste Carriers
Dredge Spoils, 1993	1,600 cubic yards of dredged materials transported to disposal site.	Ross Island Sand and Gravel Portland, OR	Waste carrier records not found. See response to Question No. 22.
Used Oil April 9, 2012	640 gallons transported to Oil – Re-refining for recycling.	16540 SE 130th Ave. Clackamas OR 97015	Safety Kleen
Used Antifreeze April 9, 2012	Fifty-three (53) gallons transported to Oil – Re-refining for recycling.	16540 SE 130th Ave. Clackamas OR 97015	Safety Kleen
Used Oil Filters April 12, 2012	Two (2) oil drums transported to Oil – Re-refining for recycling.	16540 SE 130th Ave. Clackamas OR 97015	Safety Kleen
Asbestos-Containing Material September 16, 2010	A one-time (1) maintenance event resulted in asbestos-containing waste.[29]	3205 SE Minster Bridge Hillsboro, OR, 57123	Hillsboro Landfill, Inc.

[29] The post-May 2008 event occurred on September 16, 2010. A 120 lb steel pipe with asbestos insulation was removed during maintenance. Record of the removal of this asbestos-containing material is included in this addendum's appendix [AGC0012228].

41. Describe all wastes disposed by Respondent into Respondent's drains including but not limited to:

a. **the nature and chemical composition of each type of waste;**
b. **the dates on which those wastes were disposed;**
c. **the approximate quantity of those wastes disposed by month and year;**
d. **the location to which these wastes drained (e.g. septic system or storage tank at the Property, pre- treatment plant, Publicly Owned Treatment Works (POTW), etc.); and**
e. **whether and what pretreatment was provided.**

Rivergate:

Neutralized laboratory chemicals represent a very small contribution of total material disposed of in Rivergate's sewer system. Since the kilns were decommissioned in 2006, the amount of laboratory waste generated is not measured but has significantly reduced between 2005 and 2011 due to the elimination of the kiln department and the corresponding reduction in the number of product QA/QC laboratory analyses being performed.

Terminal:

See Table 21-2 in the response to Question No. 21.

42. Identify any sewage authority or treatment works to which Respondent's waste was sent.

43. Describe all settling tank, septic system, or pretreatment system sludges or other treatment wastes resulting from Respondent's operations.

44. If applicable, describe the facilities, processes and methods Respondent or Respondent's contractor used, and activities engaged in, either currently or in the past, related to ship building, retrofitting, maintenance or repair, including, but not limited to, dry-docking operations, tank cleaning, painting and re-powering.

45. Describe any hazardous substances, wastes, or materials used or generated by the activities described in response to the previous Question and how these hazardous substances, materials and wastes were released or disposed of.

46. Provide copies of any records you have in your possession, custody or control relative to the activities described in response to the previous two Questions.

47. Describe any process or activity conducted on a Property identified in response to Question 4 involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of polychlorinated biphenyl(s) ("PCB(s)") or PCB(s)-containing materials or liquids.

Rivergate:

Ash Grove used on-specification (on-spec) and off-specification (off-spec) used oil to fire the kilns at Rivergate, along with other fuels such as natural and landfill gas. On-spec and off-spec used oil are defined as used oil containing no more than two (2) parts per million ("ppm") and forty-nine (49) ppm PCB, respectively. Ash Grove's October 2008 CERCLA § 104(e) response states, "on-spec [used] oil has been fired in the kilns from 1978 until the kilns were permanently decommissioned in May 2006. Off-spec [used] oil has been fired in the kilns from 1988 until the kilns were permanently decommissioned in May 2006." However, upon further review, including the annual reports submitted to ODEQ pursuant to its ACDP permits, used oil was not fired at Rivergate until 1988 and its use ended in 2006 when the kilns were decommissioned.

The types and quantities of fuel used annually at Rivergate are listed in Tables 47-1 and 47-2. Major changes related to used and fuel oil usage at Rivergate are discussed in this response.[30]

Kiln 1 and 2 at the Rivergate facility were installed in 1963; Kiln 3 was installed in 1977. In late 1969 and early 1970, a 425,000 gallon tank was installed with allowed Ash Grove to store No. 2 fuel oil (diesel). Diesel was used as a fuel source in the kilns from 1970 through 1985.

A 30,000 gallon tank was installed in November of 1978. The larger 425,000 gallon tank switched to No. 6 fuel oil storage and the 30,000 gallon tank was used for diesel. The annual reports submitted to ODEQ pursuant to Ash Grove's ACDP permits indicate No. 6 fuel oil was fired at Rivergate from 1978 through 1991 [AGC0007767-AGC0007816].

ODEQ authorized Ash Grove to receive and burn off-spec used oil as a fuel source in its Rivergate kilns by a letter dated July 17, 1988 [AGC0012234-AGC0012238]. Table 47-1 reports oil usage by type between 1988 and 1995 [AGC0007812-AGC0007863]. During that period, used oil was not divided into on-spec and off-spec categories. Ash Grove personnel report that to the best of their information and belief, the company did not purchase No. 4 fuel oil at Rivergate, and they believe that the quantities of No. 4 fuel oil reported between 1988 and 1992 are actually used oil. Table 47-2 reports on-spec used oil and off-spec used oil used between 1996 and 2006 [AGC0007864-AGC0008008]. As noted above, used oil was not accepted after the kilns were decommissioned in 2006.

[30] A detailed list of major changes at the Rivergate facility may be found in Table 13-3 in Ash Grove's October 2008 CERCLA §104(e) response [AGC0000050-AGC0000052].

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TABLE 47-1. RIVERGATE FUEL OIL USAGE BY TYPE FROM 1988 THROUGH 1995

Material	Units	Year							
		1988	1989	1990	1991	1992	1993	1994	1995
Oil (Non-Specific) [31]	Gallons	--	--	--	--	--	1,560,031	4,740,401	--
Used Oil	Gallons	--	--	--	--	--	--	--	3,535,383
Off-Spec Used Oil	Gallons	--	--	--	--	--	--	--	--
On-Spec Used Oil	Gallons	--	--	--	--	--	--	--	--
No. 4 Fuel Oil [32]	Gallons	632,977	828,779	963,325	308,062	1,586,097	--	--	--
No. 6 Fuel Oil (Bunker C)	Gallons	181,472	397,510	712,438	322,578	--	--	--	--

TABLE 47-2. RIVERGATE FUEL OIL USAGE BY TYPE FROM 1996 THROUGH 2006

Material	Units	Year										
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Oil (Non-Specific)	Gallons	--	--	--	--	--	--	--	--	--	--	--
Used Oil	Gallons	2,533,227	2,413,255	1,586,253	1,245,291	1,481,965	765,547	1,515,970	2,421,928	2,289,739	2,081,568	846,282
Off-Spec Used Oil	Gallons	246,268	272,448	264,291	321,909	217,461	171,718	157,744	273,243	312,973	324,676	52,983
On-Spec Used Oil	Gallons	2,286,959	2,140,807	1,321,962	923,382	1,264,504	593,829	1,358,226	2,148,685	1,976,766	1,756,892	793,299
No. 4 Fuel Oil	Gallons	--	--	--	--	--	--	--	--	--	--	--
No. 6 Fuel Oil (Bunker C)	Gallons	--	--	--	--	--	--	--	--	--	--	--

[31] The 1993 and 1994 annual reports submitted to ODEQ pursuant to its ACDP permits list undifferentiated quantities of oil. Ash Grove personnel report that to the best of their information and belief, the quantities of oil (non-specific) reported in 1993 and 1994 are actually used oil.

[32] Ash Grove personnel report that to the best of their information and belief, the company did not purchase No. 4 fuel oil at Rivergate, and they believe that the quantities of No. 4 fuel oil reported between 1988 and 1992 are actually used oil.

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48. For each process or activity identified in response to the previous question, describe the dates and duration of the activity or process and the quantity and type of PCB(s) or PCB(s) containing materials or liquids.

49. For each process or activity identified in response to the previous two questions, identify the location of the process or activity on the property

50. Identify all federal, state and local authorities that regulated the owner or operator of each Property and/or interacted with the owner or operator, including all interactions and all contacts from agencies/departments that dealt with health and safety issues and/or environmental concerns.

A list of all federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property is included in this addendum's appendix [AGC0012239-AGC0012254].

51. Provide copies of all documents associated with each occurrence associated with violations, citations, deficiencies, and/or accidents concerning each Property during the period being investigated related to health and safety issues and/or environmental concerns.

Table 51-1 identifies the documents and provides a brief description of the occurrences, and specifies the type of occurrences (i.e., violation, citation, deficiency, and/or accident) for the Terminal facility, and, to the extent reasonably possible, identifies Ash Grove's response. Table 51-1 includes some events that occurred before May 2008 but were mistakenly omitted from the October 2008 § 104(e) response. There have been no such occurrences since May 2008 at the Rivergate facility, nor were any unreported events before May 2008 identified.

Although Ash Grove does not believe excursions of the benchmarks on November 2, 2006 and January 17, 2008 in its 1200-Z [AGC0012255-AGC0012264] and 1700-B [AGC0012265-AGC0012277] permits, respectively, meet the definition of violation, citation, deficiency, and/or accident, excursions are included in the response to this question in the interest of providing complete information. Ash Grove has not measured an exceedance at Outfall 4 since February 23, 2009 [AGC0012169-AGC0012177]. Similarly, Ash Grove has not measured an exceedance at the truck wash since January 2008, the date of the last exceedance of the 1700-B permit.

TABLE 51-1. OCCURRENCES OF VIOLATIONS, CITATIONS, DEFICIENCIES, AND/OR ACCIDENTS AT TERMINAL

Date of Occurrence	Description of Occurrence
November 2, 2006	Ash Grove exceeded the benchmarks established by the NPDES Stormwater Discharge Permit No. 1200-Z for Total Suspended Solids ("TSS") and zinc, recording sample concentrations of 220 mg/L and 1.2 mg/L, respectively. It is likely that the TSS exceedance was due to construction activities at the site, and it is possible that the zinc exceedance was caused by stormwater contacting galvanized metal pipes. Moreover, this anomalous zinc exceedance has not recurred [AGC0012255-AGC0012264].
June 5, 2007	Ash Grove exceeded the pH benchmark established by the NPDES Stormwater Discharge Permit No. 1200-Z at Outfall 4, recording a sample pH of 9.34 [AGC0012255-AGC0012277].
January 17, 2008	Ash Grove exceeded the pH benchmark established by the General Water Pollution Control Facilities Permit No. 1700-B. This excursion was mistakenly omitted from the October 2008 CERCLA § 104(e) response. The discharge monitoring report is included in this addendum's appendix [AGC0012265-AGC0012277]. ODEQ issued a warning letter to Ash Grove regarding this excursion on February 11, 2009 [AGC0012278-AGC0012279].
February 23, 2009	Ash Grove exceeded the oil and grease benchmark established by the NPDES Stormwater Discharge Permit No. 1200-Z at Outfall 4, recording a sample concentration of 12.7 mg/L [AGC0012169-AGC0012177].

52. Provide a list of all local, state, and federal environmental permits ever issued to the owner or operator on each Property (e.g. RCRA permits, NPDES permits, etc). Please provide a copy of each federal and state permit, and the applications for each permit, ever issued to the owner or operator on each Property.

Local, state, and federal environmental permits issued to the Rivergate facility since May 2008 are listed in Table 52-1. Permits issued to the Terminal are listed in Table 52-2.

TABLE 52-1. LOCAL, STATE, AND FEDERAL PERMITS ISSUED TO RIVERGATE FACILITY

Type of Permit	Permit Number (If available)	Issue Date	Expiration Date	Notes
ACDP	26-1891	October 22, 2008	July 1, 2013	Renewal of ACDP; reflects shutdown of lime kilns. The ACDP permit is included in this addendum's appendix [AGC0011882-AGC0011902].
NPDES Permit	Permit No. 102465	May 17, 2011	December 31, 2014	The permit covers Outfall 001, includes monitoring requirements for intermittent irrigation discharge, and has an effluent discharge limit of 13,000 gallons per day. Additionally, the TSS monthly average concentration is twenty-five (25) mg/L and the daily maximum concentration is fifty (50) mg/L. The permit also has a pH range of 6.5 - 8.5. The NPDES Permit is included in this addendum's appendix [AGC0012001-AGC0012014].

TABLE 52-2. LOCAL, STATE, AND FEDERAL PERMITS ISSUED TO TERMINAL

Type of Permit	Permit Number (If available)	Issue Date	Expiration Date	Notes
401 Water Quality Certification	401 WQC	January 22, 2009	Five (5) years from date of issuance of the Corps of Engineers permit, January 21, 2014	Certification issued by ODEQ for maintenance dredging. No dredging has occurred during Ash Grove's ownership. [AGC0012280-AGC0012284].
Corps of Engineers Permit for Dredging	NWP-1997-114	February 25, 2009	February 4, 2013	Permit allows for dredging to maintain adequate depth at the wharf for vessel use. No dredging has taken place [AGC0012285-AGC0012332].
ACDP Addendum	26-0146	July 23, 2010		ODEQ agreed on the removal of Condition 2.2, Replacement of Filter Bags. [AGC0012333-AGC0012336].
ACDP	26-0146-S1-01	August 2, 2011	June 1, 2016	The 2011 ACDP is included in this addendum's appendix [AGC0012337-AGC0012355].
NPDES Stormwater Discharge Permit	1200-Z	July 1, 2012	June 30, 2017	The NPDES Stormwater discharge permit is included in this addendum's appendix [AGC0012076- AGC0012168].

53. Did the owner or operator ever file a Hazardous Waste Activity Notification under the RCRA? If so, provide a copy of such notification.

54. Did the owner or operator's facility on each Property ever have "interim status" under the RCRA? If so, and the facility does not currently have interim status; describe the circumstances under which the facility lost interim status.

55. Provide all RCRA Identification Numbers issued to Respondent by EPA or a state for Respondent's operations.

56. Identify all federal offices to which Respondent has sent or filed hazardous substance or hazardous waste information. State the years during which such information was sent/filed.

57. Identify all state offices to which Respondent has sent or filed hazardous substance or hazardous waste information. State the years during which such information was sent/filed.

58. List all federal and state environmental laws and regulations under which the Respondent has reported to federal or state government. Provide copies of each report made (required under environmental laws and regulations under which the Respondent has reported to federal or state government) If only oral reporting was required under environmental regulations, identify the federal and state offices to which such report was made.

The Toxic Substance Control Act Form U can be found in this addendum's appendix [AGC0012356-AGC0012381].

59. Provide a copy of any registrations, notifications, inspections or reports required by the Toxic Substances Control Act, 15 USC § 2601 et seq., or state law, to be maintained or submitted to any government agency, including fire marshal(s), relating to PCB(s) or PCB(s) containing materials or liquids on any Property identified in response to Question No. 4.

60. Has Respondent or Respondent's contractors, lessees, tenants, or agents ever contacted, provided notice to, or made a report to the Oregon Department of State Lands ("DSL") or any other state agency concerning an incident, accident, spill, release, or other event involving Respondent's leased state aquatic lands? If so, describe each incident, accident, spill, release, or other event and provide copies of all communications between Respondent or its agents and DSL or the other state agency and all documents that were exchanged between Respondent, its agents and DSL or other state agency.

61. Describe all notice or reporting requirements to DSL that you had under an aquatic lands lease or state law or regulation regarding incidents affecting, or activities or operations occurring on leased aquatic lands. Include the nature of the matter required to be reported and the office or official to whom the notice or report went to. Provide copies of all such notices or reports.

62. Identify all leaks, spills, or releases into the environment of any waste, including petroleum, hazardous substances, pollutants, or contaminants, that have occurred at or from each Property, which includes any aquatic lands owned or leased by Respondent. In addition, identify, and provide copies of any documents regarding:

a. **when such releases occurred;**
b. **how the releases occurred (e.g., when the substances were being stored, delivered by a vendor, transported or transferred (to or from any tanks, drums, barrels, or recovery units), and treated);**
c. **the amount of each hazardous substances, pollutants, or contaminants so released;**
d. **where such releases occurred;**
e. **any and all activities undertaken in response to each such release or threatened release, including the notification of any agencies or governmental units about the release;**
f. **any and all investigations of the circumstances, nature, extent or location of each release or threatened release including, the results of any soil, water (ground and surface), or air testing undertaken;**
g. **all persons with information relating to these releases; and**
h. **list all local, state, or federal departments or agencies notified of the release, if applicable.**

Ash Grove personnel report that, to the best of their information and belief, there have been no releases of wastes on or from the Rivergate facility since May 2008, the cutoff date for Ash Grove's response to the CERCLA § 104(e). See the response to Question No. 67 for a description of releases in the vicinity of the Terminal.

63. Was there ever a spill, leak, release or discharge of waste, including petroleum, or hazardous substances, pollutant or contaminant into any subsurface disposal system or floor drain inside or under a building on the Property? If the answer to the preceding question is anything but an unqualified "no," identify:

a. **where the disposal system or drain was located;**
b. **when the disposal system or drain was installed;**
c. **whether the disposal system or drain was connected to pipes;**
d. **where such pipes were located and emptied;**
e. **when such pipes were installed;**
f. **how and when such pipes were replaced, or repaired; and**
g. **whether such pipes ever leaked or in any way released waste or hazardous substances into the environment.**

64. Has any contaminated soil ever been excavated or removed from the Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of any documents regarding:

a. amount of soil excavated;
b. location of excavation presented on a map or aerial photograph;
c. manner and place of disposal and/or storage of excavated soil;
d. dates of soil excavation;
e. identity of persons who excavated or removed the soil, if other than a contractor for Respondent;
f. reason for soil excavation;
g. whether the excavation or removed soil contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the soil contained, and why the soil contained such constituents;
h. all analyses or tests and results of analyses of the soil that was removed from the Property;
i. all analyses or tests and results of analyses of the excavated area after the soil was removed from the Property; and
j. all persons, including contractors, with information about (a) through (i) of this request.

Rivergate:

Since the October 2008 response to Question No. 64 of the CERCLA § 104(e), Ash Grove identified a dredging event that took place in 1993. The 1993 dredging event is discussed in Question No. 22 of this addendum. In addition, Table 64-1 identifies employees, contractors, and regulators, which may have additional information regarding the 1993 dredging event.[33] Greg Speyer, in particular, has knowledge regarding the 1993 dredging event.

TABLE 64-1. PERSONS WITH INFORMATION REGARDING THE 1993 DREDGING EVENT

Name	Employer	Business Address	Telephone Number	Job Title
Glenn Dollar	Ash Grove	13939 N. Rivergate Blvd, Portland, OR 97203		Safety and Environmental Manager
Gary Wright	Ash Grove	13939 N. Rivergate Blvd, Portland, OR 97203		Rivergate Plant Manager
Greg Speyer	HME	6801 NW Old Lower River Road Vancouver, WA 98660	360-695-4553	
Gary Gustafson	ODEQ Division of State Lands			Director

[33] Ash Grove's response to Question No. 50 in the October 2008 CERCLA § 104(e) contained a list of persons with information regarding, among other questions, Questions Nos. 50 and 64.

AGC0011775

65. Have you ever tested the groundwater under your Property? If so, please provide copies of all data, analysis, and reports generated from such testing.

There are three (3) monitoring wells and one (1) domestic water well at the Rivergate facility. The monitoring wells are located near the tank farm area and were originally installed as leak detection wells. These monitoring wells are not sources of process and domestic water. Ash Grove has not sampled the monitoring wells since 2006 when the tank farm was decommissioned because there is no regulatory requirement or other reason to do so, but has continued to sample the domestic water well to ensure its suitability for domestic use. The water meets drinking water standards. The results of domestic water testing since May 2008 are voluminous; if requested, Ash Grove will provide these results to EPA.

66. Have you treated, pumped, or taken any kind of response action on groundwater under your Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of any documents regarding:

a. reason for groundwater action;
b. whether the groundwater contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the groundwater contained, and why the groundwater contained such constituents;
c. all analyses or tests and results of analyses of the groundwater;
d. if the groundwater action has been completed, describe the basis for ending the groundwater action; and
e. all persons, including contractors, with information about (a) through (c) of this request.

67. Was there ever a spill, leak, release or discharge of a hazardous substance, waste, or material into the Willamette River from any equipment, structure, or activity occurring on, over, or adjacent to the river? If the answer to the preceding question is anything but an unequivocal "no", identify and provide copies of any documents regarding:

Except as described below and in the October 2008 CERCLA § 104(e) response, to the best of Ash Grove's information and belief, no other spills, leaks or discharges of a hazardous substance, waste or material into the Willamette River from an overwater facility or a facility physically located in the water at the Terminal facility have been identified since May 2008.

Forty-one (41) independent vessels were at lay berth between May 2008 and March 2013 at the North Terminal wharf. While moored the vessels are refuel and maintained, Ash Grove is not involved with refueling or maintenance activities, nor are they conducted under Ash Grove's direction or control. There have been two (2) incidents that might be considered releases associated with lay berths; these incidents are described in the following paragraphs.

On the morning of September 2, 2007 an Ash Grove employee noticed an oil sheen located between the North Terminal berth and the vessel *Ken Gallant*. The oil sheen was coming from an unidentified point upstream of the Terminal Facility. After a discussion between Ash Grove personnel and the captain of the *Ken Gallant*, the United States Coast Guard ("USCG") was notified. The USCG

arrived a short time later and stated that the sheen should burn off once the sun came out, then left. The USCG returned later in the morning and boarded the *Ken Gallant*. Ash Grove was not involved in the conversation aboard the *Ken Gallant.* The oil sheen continued moving downstream and was no longer visible later that same morning.

On December 6, 2010 an Ash Grove employee noticed an oil sheen near the starboard side of the *B Indonesia,* cargo vessel. The captain of the vessel was notified, and oil booms were placed around the source of the leak in an effort to contain it. Ash Grove contacted the NRC and was told incident No. 961548 was assigned. USCG personnel inspected the oil sheen. The Maritime Fire & Safety Association ("MFSA") and the NRC coordinated spill cleanup efforts in conjunction with the *B Indonesia* captain. Ash Grove is unaware of any specific conversation between the regulators and the *B Indonesia* captain.

In addition to a general description of these release events, Questions No. 67a-d are specifically addressed below.

a. the nature of the hazardous substance, waste, or material spilled, leaked, released or discharged;

Ash Grove assumes the two (2) releases culminating in sheens described in the preceding paragraphs were of petroleum products, but has no verification of that assumption. In addition, during cleanup of the *B Indonesia* release, Ash Grove personnel reported smelling a strong oil odor.

b. the dates of each such occurrence;

See answer above.

c. the amount and location of such release;

See answer above. Ash Grove has no knowledge regarding the amount of petroleum released from the *B Indonesia*, nor of the unidentified release seen passing by the *Ken Gallant*.

d. were sheens on the river created by the release;

Yes. See the response to Question No. 67a above.

e. was there ever a need to remove or dredge any solid waste, bulk product, or other material from the river as a result of the release? If so, please provide information and description of when such removal/dredging occurred, why, and where the removed/dredged materials were disposed.

Dredging of solid waste, bulk product, or other material from the river as a result of these releases was not required.

Ash Grove was not involved in any remedial action or environmental investigation in response to either of the releases described above. The USCG did not take remedial action in response to the oil sheen seen while the *Ken Gallant* was berthed at the North Terminal Facility wharf.

Ash Grove observed oil booms placed first around the propeller area of the *B Indonesia* and eventually the entire vessel. The NRC was contacted and was told incident No. 961548 was assigned. USCG personnel arrived shortly thereafter, and Ash Grove assumes USCG informed the captain of necessary cleanup measures. The MFSA and NRC assisted the *B Indonesia* captain in the cleanup effort.

68. For any releases or threatened releases of PCB(s), identify the date, quantity, location and type of PCB(s), or PCB(s) containing materials or liquids, and the nature of any response to or cleanup of the release.

69. For any releases or threatened releases of PCB(s) and/or PCB(s) containing materials or liquids, identify and provide copies of any documents regarding the quantity and type of waste generated as a result of the release or threatened release, the disposition of the waste, provide any reports or records relating to the release or threatened release, the response or cleanup and any records relating to any enforcement proceeding relating to the release or threatened release.

70. Provide information and documentation concerning all inspections, evaluations, safety audits, correspondence and any other documents associated with the conditions, practices, and/or procedures at the Property concerning insurance issues or insurance coverage matters.

71. Describe the purpose for, the date of initiation and completion, and the results of any investigations of soil, water (ground or surface), sediment, geology, and hydrology or air quality on or about each Property. Provide copies of all data, reports, and other documents that were generated by you or a consultant, or a federal or state regulatory agency related to the investigations that are described.

Table 71-1 includes the information requested by Question No. 71 for each relevant investigation of environmental media conducted by or on behalf of Ash Grove or by a federal or state regulatory agency for the Rivergate facility since May 2008. There have been no investigations of environmental media for the Terminal facilities since May 2008.

AGC0011778

TABLE 71-1. DETAILS REGARDING INVESTIGATIONS OF ENVIRONMENTAL MEDIA AT RIVERGATE

Name of investigation	Purpose	Environmental Media	Date initiated	Date completed	Summary of results
ODEQ Site Assessment Program – Site Strategy Recommendation	To identify potential sources and pathways of contamination to the Willamette River from the Rivergate facility.	Soil	2008	2008	ODEQ issued a Site Strategy Recommendation on June 29, 2009 that the site would not be added to the Confirmed Release List and Inventory of sites requiring further investigation and cleanup. [AGC0012382-AGC0012396].
Sediment Characterization Report – Ash Grove Cement Rivergate Facility, Portland, OR	To delineate extent of polycyclic aromatic hydrocarbons (PAHs) detected in sediments near the facility.	Sediment	8/2013	10/2013	PAHs were measured in sediments in the vicinity of a single data point in the Lower Willamette Group Remedial Investigation and the extent of elevated concentrations of PAHs was circumscribed. [AGC0012397-AGC0012568].

72. Describe any remediation or response actions you or your agents or consultants have ever taken on each Property either voluntarily or as required by any state or federal agency. If not otherwise already provided under this Information Request, provide copies of all investigations, risk assessments or risk evaluations, feasibility studies, alternatives analysis, implementation plans, decision documents, monitoring plans, maintenance plans, completion reports, or other document concerning remediation or response actions taken on each Property.

In Table 72-1 of the October 2008 CERCLA § 104(e) response, some response actions attributed to the Terminal facility were mistakenly ascribed to the Rivergate facility. Response actions taken at Rivergate and Terminal are correctly relisted in Table 72-1 and Table 72-2, respectively.

Note that the only addition made to Table 72-1 or Table 72-2 (compared to Table 72-1 in the October 2008 CERCLA § 104(e) response) is related to cleanup of the permitted discharge area at the Terminal facility in 2008. Since May 2008, Ash Grove has planted riparian shrubs on the river side of the permitted discharge area and removed debris and rubbish. A 2011 inspection report shows the area is now compliant [AGC0012569-AGC0012574].

AGC0011779

TABLE 72-1. REMEDIATION AND RESPONSE ACTIONS TAKEN AT THE RIVERGATE FACILITY

Year	Name	Description	Individuals with Information Relating to Release	Bates Numbers
1974	Installation of quicklime dust control system.	On June 4, 1973, Ash Grove received a notice of violation from the Columbia-Willamette Air Pollution Authority regarding visible emissions from the number two cooler exhaust system caused by a process upset and excessive amounts of dust generated by vehicle traffic. Ash Grove responded by installing a quicklime dust control system in 1974, which ODEQ confirmed met the requirements of the notice in correspondence dated April 16, 1974.	Tom Bispham and James R. Close – Willamette Air Pollution Authority William A. Kislter – Ash Grove Wayne Hanson – ODEQ Columbia-Willamette Region	[AGC0011021-AGC0011039]
1996	Installation of Pneumatic Conveyor System	A pneumatic conveyor was installed to reduce dust emissions occurring during the emptying of a dust collector on-site. Prior to the installation of the pneumatic conveyor, material was emptied from the dust collector simply by opening the holding tank and allowing dust to fall into a bucket. Ash Grove had received several complaints about dust emission during May and June 1996. According to interviews with plant personnel, this conveyor was installed shortly after the complaints in May and June 1996.	Albert A. Collinet and Ken Rone – Ash Grove Bruce Baker – Consolidated Metro, Inc. Adam Richard – James River Corporation Western Transportation	[AGC0011040-AGC0011045]
1998	Cleanup of neighboring property and improvements to water management.	A neighbor complained that kiln cooling water was spilling onto a neighboring property. Ash Grove removed trace amounts of lime from the neighboring property and added a layer of rocks for aesthetic purposes. Corrective actions at the Ash Grove facility included fortifying the kiln buttress blocks and adding additional pumps on the line.	Gary Wright, Glenn Dollar, Robert Vantuyl, Ken Rone, and Walter Greer – Ash Grove	[AGC0011046-AGC0011048]

TABLE 72-1. REMEDIATION AND RESPONSE ACTIONS TAKEN AT THE RIVERGATE FACILITY (CONTINUED)

Year	Name	Description	Individuals with Information	Bates Numbers
2000	Operational Improvements	In July 2000, a neighboring facility complained about dust emissions from the Rivergate facility. The main cause of the dust emissions included a malfunction of the rotary valve located along the south perimeter of the kiln department. Other contributing causes were baghouse emissions, fugitive dust from material transport and stockpiles, and painting/sandblasting work conducted by a contractor. Ash Grove fixed the rotary valve, checked amount of water on material transported by conveyor, increased the usage of the water truck, cleaned up the kiln department area and the area along the south fence.	Adam Richard – Ft. James Corporation Gary Wright and Glenn Dollar – Ash Grove	[AGC0011049-AGC0011051]
2002	Operational Improvements	New filter devices were installed in Kiln No. 3 to correct a problem with inconsistent fuel oil flow rate. The inconsistent fuel flow rate caused a buildup of material in the lines. The release of the buildup caused an excess oil flow to the kiln, leading to an excess emission event. In addition to installing a new filter device, the problem was discussed with, and additional training provided to, kiln operations personnel. This event and corresponding response actions were reported to Kathy Amidon at ODEQ.	Kathy Amidon - ODEQ	[AGC0011052]

TABLE 72-2. REMEDIATION AND RESPONSE ACTIONS TAKEN AT THE TERMINAL FACILITY

Year	Name	Description	Bates Numbers
2000-2001	Soil Removal and Cleanup	Cleanup of leaks possibly from hydraulically operated power units used to move railcars (i.e., rail indexers); however, there is a suggestion that there may also be some area-wide petroleum impacts throughout the floodplain in this vicinity. See Ash Grove's October 2008 response to Question No. 64 of the CERCLA § 104(e) request for more information.	[AGC0011053-AGC0011056]
2007	Air Slide Repair	In April 2007, corrective action was taken to address an air slide rupture which occurred during system startup and caused cement dust to spill out onto the ground. The rupture was caused by a valve not being in the open position. The closed valve was opened and the ruptured air slide was repaired. This was a one-time incident that did not occur again after system startup.	[AGC0009251-AGC0009252]
2008	Permitted Discharge Area Cleanup	Following a stormwater inspection report, Ash Grove cleaned out the permitted discharge area into which truck wash water flows (removed blown-in litter and trimmed vegetative overgrowth). Ash Grove planted riparian shrubs on the river side of the permitted discharge area, and removed debris and rubbish; a 2011 inspection report, included in this addendum's appendix, shows no violations or regulatory concerns.	[AGC0011057-AGC0011058] [AGC0012569-AGC0012574]

73. Are you or your consultants planning to perform any investigations of the soil, water (ground or surface), geology, hydrology, and/or air quality on or about the Property? If so, identify:

a. What the nature and scope of these investigations will be;
b. The contractors or other persons that will undertake these investigations;
c. The purpose of the investigations;
d. The dates when such investigations will take place and be completed; and
e. Where on the Property such investigations will take place.

74. Provide the following information, when applicable, about you and/or your business(es) that are associated with each Property identified in response to Question 4:

a. state the current legal ownership structure (e.g., corporation, sole proprietorship);

b. state the names and current addresses of current and past owners of the business entity or, if a corporation, current and past officers and directors;

c. discuss all changes in the business' legal ownership structure, including any corporate successorship, since the inception of the business entity. For example, a business that starts as a sole proprietorship, but then incorporates after a few

years, or a business that is subsequently acquired by and merged into a successor. Please include the dates and the names of all parties involved;

d. the names and addresses of all current or past business entities or subsidiaries in which you or your business has or had an interest that have had any operational or ownership connection with the Properties identified in response to Question 4. Briefly describe the business activities of each such identified business entities or subsidiaries; and

e. if your business formerly owned or operated a Property identified in response to Question 4, describe any arrangements made with successor owners or operators regarding liability for environmental contamination or property damage.

75. List all names under which your company or business has ever operated and has ever been incorporated. For each name, provide the following information:

a. **whether the company or business continues to exist, indicating the date and means by which it ceased operations (e.g., dissolution, bankruptcy, sale) if it is no longer in business;**

b. names, addresses, and telephone numbers of all registered agents, officers, and operations management personnel; and

c. names, addresses, and telephone numbers of all subsidiaries, unincorporated divisions or operating units, affiliated, and parent corporation if any, of the Respondent.

76. Provide all copies of the Respondent's authority to do business in Oregon. Include all authorizations, withdrawals, suspensions and reinstatements.

77. If Respondent is, or was at any time, a subsidiary of, otherwise owned or controlled by, or otherwise affiliated with another corporation or entity, then describe the full nature of each such corporate relationship, including but not limited to:

a. a general statement of the nature of relationship, indicating whether or not the affiliated entity had, or exercised, any degree of control over the daily operations or decision-making of the Respondents business operations at the Site;

b. the dates such relationship existed;

c. the percentage of ownership of Respondent that is held by such other entity(ies);

d. **for each such affiliated entity provide the names and complete addresses of its parent, subsidiary, and otherwise affiliated entities, as well as the names and addresses of each such affiliated entity's officers, directors, partners, trustees, beneficiaries, and/or shareholders owning more than five percent of that affiliated entity's stock;**

e. **provide any and all insurance policies for such affiliated entity(ies) which may possibly cover the liabilities of the Respondent at each Property; and**

f. **provide any and all corporate financial information of such affiliated entities, including but not limited to total revenue or total sales, net income, depreciation, total assets and total current assets, total liabilities and total current liabilities, net working capital (or net current assets), and net worth.**

78. If Respondent is a partnership, please describe the partnership and provide a history of the partnership's existence. Provide a list of all current and past partners of any status (e.g., general, limited, etc) and provide copies of all documents that created, govern, and otherwise rules the partnership, including any amendments or modification to any of the originals of such documents, and at least five years of partnership meeting minutes.

79. Describe all sources reviewed or consulted in responding to this request, including, but not limited to:

a. **the name and current job title of all individuals consulted;**

b. **the location where all sources reviewed are currently reside; and**

c. **the date consulted.**

80. If not already provided, identify and provide a last known address or phone number for all persons, including Respondent's current and former employees or agents, other than attorneys, who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous materials at, or transportation of hazardous substances, waste, or materials to or from, each Property identified in response to Question 4.

To the best of Ash Grove's information and belief, it has listed the persons with knowledge or information in its prior responses. However, if additional responsive information is developed, Ash Grove will supplement the response to this Question No. 80.

81. If any of the documents solicited in this information request are no longer available, please indicate the reason why they are no longer available. If the records were destroyed, provide us with the following:

a. **the document retention policy between 1937 and the present;**

b. the approximate date of destruction;

c. a description of the type of information that would have been contained in the documents;

d. the name, job title and most current address known by you of the person(s) who would have produced these documents; the person(s) who would have been responsible for the retention of these documents; the person(s) who would have been responsible for destroying the documents; and the person(s) who had and/or still have the originals or copies of these documents; and

e. the names and most current addresses of any person(s) who may possess documents relevant to this inquiry.

82. Provide a description of all records available to you that relate to all of the questions in this request, but which have not been included in your responses.

I declare under penalty of perjury that I am authorized to respond on behalf of Respondent and that the foregoing is complete, true, and correct.

Executed on January 02, 2014.

Signature

Gary Church
Type or Print Name

Assistant General Counsel & Assistant Secretary
Title

Mailing Address: Ash Grove Cement Company
P.O. Box 25900
Overland Park, KS 66225

AGC0011786

ADDENDUM APPENDIX

Electronic copies of the documents that comprise this Appendix are included on the compact disc submitted in conjunction with this response.

AGC0011787

MEMORANDUM OF ROADWAY USE AND MANAGEMENT AGREEMENT

Parties to the Agreement:

ASH GROVE CEMENT COMPANY ("Ash Grove"):
11011 Cody
Overland Park, Kansas 66210

J. R. SIMPLOT COMPANY ("Simplot"):
P.O. Box 27
Boise, ID 83707

Notice is hereby given that the above-named Parties have entered into a Roadway Use and Management Agreement with an effective date of July 31, 2012 wherein they agreed to certain terms for the use, maintenance, repair and replacement of a roadway constructed on the real property of Simplot described on Exhibit A attached hereto. Pursuant to the terms of an Agreement for Ingress and Egress Easement of even date with the Roadway Use and Management Agreement, Simplot is granting Ash Grove a non-exclusive easement for use of the roadway for ingress and egress purposes benefitting certain real property owned by Ash Grove described on Exhibit B attached hereto ("Ash Grove Plant Parcel") under certain conditions as set forth in said Agreement for Ingress and Egress Easement. The roadway will also be used by Simplot for ingress and egress purposes benefitting the "Simplot Parcels" described on Exhibit C, attached hereto. The Roadway Use and Management Agreement is binding on Simplot and Ash Grove and their successors in interest as to the Ash Grove Plant Parcel and the Simplot Parcels, and will remain in effect for so long as the Agreement for Ingress and Egress Easement remains in effect.

DATED this 14th day of August, 2012.

ASH GROVE CEMENT COMPANY

By: Daniel J. Peters
Print Name: Daniel J. Peters
Its: Vice President - Manufacturing, West

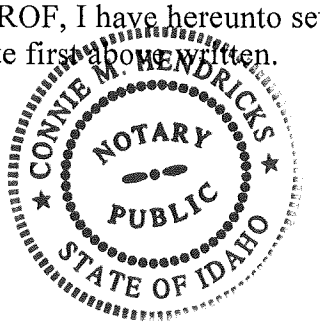
J. R. SIMPLOT COMPANY

By:
Terry P. Uhling, Senior Vice President,
Secretary and General Counsel

STATE OF IDAHO)
) ss.
COUNTY OF ADA)

On this 14th day of August, 2012, before me, a Notary Public in and for said State, personally appeared Terry T. Uhling, known to me to be the Senior Vice President, Secretary and General Counsel of the J. R. Simplot Company, the corporation that executed the instrument or the person who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEROF, I have hereunto set my hand and affix my official seal the day and year in this certificate first above written.



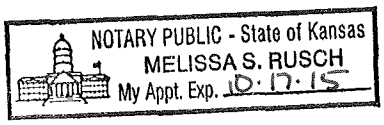
Notary Public for Idaho
Residing at: Ada County, Idaho
My Commission Expires: 8/22/2014

(seal)

STATE OF Kansas)
) ss.
COUNTY OF Johnson)

On this 3rd day of August, 2012, before me, a Notary Public in and for said State, personally appeared Daniel J. Peters, known to me to be the V.P. Manufacturing-West of Ash Grove Cement Company, the corporation that executed the instrument or the person who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEROF, I have hereunto set my hand and affix my official seal the day and year in this certificate first above written.



Melissa S Rusch
Notary Public for Johnson Co., KS
Residing at: Overland Park, KS
My Commission Expires: 10-17-15

Exhibit A
(Description of Simplot Real Property Containing the Roadway)

A strip of land 33.00 feet wide, located in a portion of Tract "O" of "RIVERGATE INDUSTRIAL DISTRICT BLKS. 13 to 25, according to the plat thereof, recorded in Book 1207 of Plats at Pages 18-25, records of Multnomah County, Oregon, in the Southwest quarter of Section 26 and the Southeast quarter of Section 27, Township 2 North, Range 1 West, Willamette Meridian, City of Portland, Multnomah County, Oregon, described as follows:

Beginning at the Southeast corner said Tract "O", said point being the **POINT OF BEGINNING**;

Thence North 89°55'25" West, along the South line of said Tract "O", for a distance of 879.65 feet;

Thence North 00°04'35" East, for a distance of 33.00 feet;

Thence South 89°55'25" East, for a distance of 879.65 feet to the Northeast corner of said Tract "O";

Thence South 00°04'35" West, for a distance of 33.00 feet to the **POINT OF BEGINNING**;

The bearings in this Description are based upon Port of Portland's Local Projection Coordinate System, shown on the Port of Portland Drawing No. "MD RG 2006-3024".

Exhibit B
(Description of Ash Grove Plant Parcel)

The real property in the City of Portland, Multnomah County, Oregon, more particularly described as follows:

Beginning at the aforesaid Point "A" as described in EXHIBIT "A" Description of Plant Property said point being the **POINT OF BEGINNING**;

Thence due West along the North line of said EXHIBIT "A", for a distance of 425.00 feet to the Southeast corner said Tract "O" of "RIVERGATE INDUSTRIAL DISTRICT BLKS. 13 to 25, according to the plat thereof, recorded in Book 1207 of Plats at Pages 18-25, records of Multnomah County, Oregon said point also being the Southeast corner of a 33.00 foot wide access easement;

Thence continuing West along said North line, for a distance of 879.65 feet to the Southwest corner of said 33.00 foot wide access easement;

Thence continuing West along said North line, for a distance of 375.57 feet to aforesaid Point "B" as described in EXHIBIT "A" Description of Plant Property;

Thence continuing West along said North line, for a distance of 269.88 feet;

Thence South, for a distance of 707.92 feet to the West extension of the South line of said EXHIBIT "A";

Thence due East along said West extension and the South line of said EXHIBIT "A", for a distance of 950.10 feet;

Thence North, for a distance of 266.40 feet;

Thence East, for a distance of 400.00 feet;

Thence North, for a distance of 233.60 feet;

Thence East, for a distance of 600.00 feet to the East line of said EXHIBIT "A";

Thence North along said East line, for a distance of 207.92 feet to the **POINT OF BEGINNING**;

Containing 22.359 acres more or less

Exhibit C
(Description of Simplot Parcels Benefitting from the Roadway)

Parcel I:
All the following real property, with the tenements, hereditaments, and appurtenances thereof, situated in Sections 26 and 27, Township 2 North, Range 1 West, of the Willamette Meridian, in the City of Portland, County of Multnomah and State of Oregon, bounded and described as follow, to wit:

Beginning at a point which is 513.22 feet East and 1343.64 North of the Southwest corner of Section 26; thence West 1246.85 feet; Thence North 8°23'12" East along the Harbor Line of the Willamette River 1353.46 feet; thence South 81°36'48" East, 200.00 feet; thence South 8°23'12" West, 300.00 feet; thence South 75 °45'20" East, 846.35 feet; thence South 729.78 feet; thence along a curve left having a radius of 75.00 feet and an included angle of 90 °, a distance of 117.81 feet to the point of beginning.

Parcel II:
The following real property situated in Section 26, Township 2 North, Range 1 West, of the Willamette Meridian, in the City of Portland, County of Multnomah and State of Oregon, bounded and described as follows:

Beginning in the Southwest corner of Section 26, Township 2 North, Range 1 West, of the Willamette Meridian; thence North, 1343.64 feet; thence East, 513.22 feet to the true point of beginning; thence Northwesterly along the arc of a curve to the right having a radius of 75.00 feet and a central angle of 90°00', 117.81 feet to a point which bears North 45°00' West, 106.05 feet from the last described point; thence North, 729.78 feet; thence South 75°45'22" East, 378.87 feet; thence South, 711.55 feet; thence West, 292.20 feet to the true point of beginning.

Parcel III:
An easement for ingress and egress as described in Warranty Deed recorded April 23, 1968 in Book 615, page 1400, being particularly described as follows:
Beginning at a point which is 1205.42 feet East and 1313.64 feet North of the Southwest corner of Section 26; thence West 1943.47 feet; thence North 8°23'12" East, 30.32 feet; thence East 1939.05 feet; thence South 30.00 feet to the point of beginning.

Tract O:
ALL OF TRACT "O" OF THE PLAT OF "RIVERGATE INDUSTRIAL DISTRICT BLKS 13-25", RECORDED MARCH 8, 1977 IN PLAT BOOK 1207, PAGES 18-25, LYING ABOVE THE ORDINARY HIGH WATER LINE, SITUATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 26 AND THE SOUTHEAST ONE-QUARTER OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, CITY OF PORTLAND, MULTNOMAH COUNTY, OREGON, BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A 3-INCH DIAMETER IRON PIPE WITH BRASS CAP ON TOP AT THE NORTHEAST CORNER OF THAT TRACT OF LAND DESCRIBED IN WARRANTY DEED TO ASH GROVE LIME & PORTLAND CEMENT COMPANY IN BOOK 2161, PAGE 237, RECORDED APRIL 3, 1963, MULTNOMAH COUNTY DEED RECORDS, SAID POINT IS LOCATED ON THE SOUTH RIGHT OF WAY LINE OF NORTH RAMSEY BOULEVARD; THENCE, ALONG SAID SOUTH RIGHT OF WAY LINE AND THE NORTH LINE OF SAID ASH GROVE TRACT, NORTH 89°55'25" WEST, 425.00 FEET TO THE WESTERLY TERMINUS OF SAID NORTH RAMSEY BOULEVARD AND THE SOUTHEAST CORNER OF SAID TRACT "O" AND THE TRUE POINT OF BEGINNING ; THENCE, ALONG THE SOUTH LINE OF SAID TRACT "O" AND THE NORTH LINE OF SAID ASH GROVE TRACT, NORTH 89°55'25" WEST, 1255.22 FEET TO A 3-INCH IRON PIPE WITH BRASS CAP; THENCE, CONTINUING ALONG SAID SOUTH LINE OF TRACT "O", NORTH 89°55'25" WEST, 122.71 FEET MORE OR LESS TO THE ORDINARY HIGH WATER LINE OF THE WILLAMETTE RIVER; THENCE, ALONG SAID ORDINARY HIGH WATER LINE, NORTH 21°53'34" EAST, 96.94 FEET TO THE NORTH LINE OF SAID TRACT "O"; THENCE, ALONG SAID NORTH LINE, SOUTH 89°55'25" EAST, 86.68 FEET TO A POINT; THENCE, CONTINUING ALONG SAID NORTH LINE, SOUTH 89°55'25" EAST, 1255.22 FEET TO THE NORTHEAST CORNER OF SAID TRACT "O" AND THE WESTERLY TERMINUS OF SAID NORTH RAMSEY BOULEVARD; THENCE, ALONG THE EAST LINE OF SAID TRACT "O" AND NORTH RAMSEY BOULEVARD, SOUTH 00°04'35" WEST, 90.00 FEET TO THE TRUE POINT OF BEGINNING, CONTAINING 122,392 SQUARE FEET (2.81 ACRES) MORE OR LESS.
THE BEARINGS IN THIS DESCRIPTION ARE BASED UPON PORT OF PORTLAND'S LOCAL PROJECTION COORDINATE SYSTEM, SHOWN ON PORT OF PORTLAND DRAWING No. "MD RG 2006-3024".

EXCEPTING THEREFROM: THAT PORTION OF TRACT "O" LYING BELOW ORDINARY HIGH WATERLINE AND ALL MINERALS AND MINERAL RIGHTS IN SAID PROPERTY, WHICH SAID RIGHTS WERE RETAINED BY THE STATE OF OREGON IN DEED RECORDED JUNE 28, 1967, BOOK 568, PAGE 1121, IN THE MULTNOMAH COUNTY DEED RECORDS.

WHEN RECORDED RETURN TO:
ASH GROVE CEMENT COMPANY
Attn: John Nelson
11011 Cody
Overland Park, Kansas 66210

AGREEMENT FOR INGRESS AND EGRESS EASEMENT

On this 14th day of August 2012, for Ten Dollars ($10.00) and other valuable consideration, **J. R. Simplot Company, a Nevada corporation, with its principal office located at 999 Main Street, Suite 1300, Boise, Idaho 83702, ("Grantor"),** does hereby grant to **Ash Grove Cement Company, a Delaware corporation, with its principal office located at 11011 Cody, Overland, Park, Kansas 66210, ("Grantee")** its successors and assigns, a non-exclusive ingress and egress easement ("Easement") situated on the land owned by Grantor and described on Exhibit A, attached hereto ("Easement Area"). Grantee is the owner of certain real property described on Exhibit B attached hereto ("Grantee Parcel"). The Easement shall serve the Grantee Parcel so long as the Grantee Parcel is not divided, partitioned or subdivided for any purpose including, without limitation, a boundary line adjustment or other conveyance of less than all of the Grantee Parcel or a lease of less than all of the Grantee Parcel for a term (including any prospective renewals of the term) of more than fifteen (15) years (individually and collectively, a "Property Division"). For the purposes of this agreement, a governmental entity's acquisition of any part of the Grantee Parcel under the power of eminent domain, or a division, partition, subdivision or boundary line adjustment of the Grantee Parcel that is required due to a regulatory requirement beyond the control of Grantee (and not associated with a voluntary act of Grantee), shall not be considered a Property Division. Upon any Property Division, the Easement will immediately terminate for the Grantee Parcel, except that Grantee may elect within sixty (60) days of any Property Division to continue the Easement for that portion of the Grantee Parcel described on Exhibit C, attached hereto ("Plant Parcel"), by providing Grantor with written notice of such election within the sixty (60) day time period, provided that no Property Division has occurred for any portion of the Plant Parcel. The Easement will automatically terminate with respect to the entire Grantee Parcel if Grantee fails to provide Grantor with Grantee's written notice electing to continue the Easement for the Plant Parcel within 60 days of the completion of the Property Division as described in this Paragraph. In addition, the Easement will automatically terminate upon any Property Division of any portion of the Plant Parcel. Upon a termination as described in this Paragraph, Grantor is hereby authorized to record a termination and release of this agreement and the Easement in the official real property records of Multnomah County, Oregon.

This agreement grants to Grantee the non-exclusive right of ingress and egress to and from the Grantee Parcel (or the Plant Parcel, in the event of a Property Division of the

Grantee Parcel as referenced above), using an existing roadway situated on the Easement Area, subject to the terms and conditions of a Roadway Use and Management Agreement executed on even date herewith.

Grantor reserves the right to use and enjoy said existing roadway situated on the Easement Area for the benefit of Grantor's property described on Exhibit D, attached hereto ("Grantor's Property"). Grantor agrees not to place any buildings, structures or trees within the Easement Area. Neither Grantor nor Grantee may park vehicles on or otherwise unreasonably prevent, hinder or interfere with the free flow and passage of traffic on the Easement Area.

Grantee hereby agrees to release, indemnify and hold Grantor harmless from and against any and all claims, losses, demands, damages and liabilities (excluding consequential damages and lost profits) by reason of injury or death to persons or injury to property arising out of use of the roadway situated on the Easement Area by Grantee, its contractors, agents, officers, equity holders, employees, invitees or licensees, except to the extent arising out of or resulting from the negligence or willful misconduct of Grantor, its agents, contractors or employees.

Grantor hereby agrees to release, indemnify and hold Grantee harmless from and against any and all claims, losses, demands, damages and liabilities (excluding consequential damages and lost profits) by reason of injury or death to persons or injury to property arising out of the use of the roadway situated on the Easement Area by Grantor, its contractors, agents, officers, equity holders, employees, invitees or licensees, except to the extent arising out of or resulting from the negligence or willful misconduct of Grantee, its agents, contractors or employees.

Grantor shall have the right, in its sole discretion, to relocate the roadway to another location on Grantor's Property, at Grantor's sole cost and expense, provided that (a) the replacement roadway provides Grantee with materially similar ingress and egress rights, (b) all work related to such relocation is done in an attempt to avoid any interruption of access to the Plant Parcel, and (c) Grantee has approved the plans and specifications of the relocated roadway, which consent shall not be unreasonably withheld, conditioned or delayed. Upon any relocation of the roadway, the parties shall execute and deliver any document reasonably required to acknowledge the relocation of the roadway and Easement Area.

Subject to the provisions of the Roadway Use and Management Agreement executed on even date herewith, it is mutually understood and agreed that this agreement and the attached exhibits, as written, cover and include all of the agreements and stipulations between the parties and that no representations or statements, verbal or written, have been made modifying, adding to or changing the terms of this agreement.

The Easement is subject to all prior easements and encumbrances of record.

The terms, conditions and provisions of this agreement shall run with the land described herein and shall extend to and be binding upon the heirs, executors, administrators, personal representatives, successors and assigns of the parties.

IN WITNESS WHEREOF the parties have EXECUTED THIS AGREEMENT FOR INGRESS AND EGRESS EASEMENT THIS 14th DAY OF August, 2012.

GRANTOR
J. R. Simplot Company

By: _____
Terry T. Uhling,
Senior Vice President,
Secretary and General Counsel

GRANTEE
Ash Grove Cement Company

By: _____
Print Name: Daniel J. Peters
Its: Vice President - Manufacturing, West

ACKNOWLEDGMENT

STATE OF IDAHO)
) ss.
COUNTY OF ADA)

On this 14th day of August, 2012, before me, a Notary Public in and for said State, personally appeared Terry T. Uhling, known to me to be the Senior Vice President, Secretary and General Counsel of the J. R. Simplot Company, the corporation that executed the instrument or the person who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEROF, I have hereunto set my hand and affix my official seal the day and year in this certificate first above written.

CONNIE M. HENDRICKS NOTARY PUBLIC STATE OF IDAHO

Notary Public for Idaho
Residing at: Ada County, Idaho
My Commission Expires: 8/24/2014

(seal)

STATE OF Kansas)
) ss.
COUNTY OF Johnson)

On this 3rd day of Aug, 2012, before me, a Notary Public in and for said State, personally appeared Daniel J. Peters, known to me to be the V.P. - Manufacturing West of Ash Grove Cement Company, the corporation that executed the instrument or the person who executed the instrument on behalf of said corporation, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEROF, I have hereunto set my hand and affix my official seal the day and year in this certificate first above written

NOTARY PUBLIC - State of Kansas
MELISSA S. RUSCH
My Appt. Exp. 10-17-15

Melissa S Rusch
Notary Public for Johnson Co., KS
Residing at: Overland Park, KS
My Commission Expires: 10-17-15

Exhibit A
(Legal Description of Easement Area)

A strip of land 33.00 feet wide, located in a portion of Tract "O" of "RIVERGATE INDUSTRIAL DISTRICT BLKS. 13 to 25, according to the plat thereof, recorded in Book 1207 of Plats at Pages 18-25, records of Multnomah County, Oregon, in the Southwest quarter of Section 26 and the Southeast quarter of Section 27, Township 2 North, Range 1 West, Willamette Meridian, City of Portland, Multnomah County, Oregon, described as follows:

Beginning at the Southeast corner said Tract "O", said point being the **POINT OF BEGINNING**;

Thence North 89°55'25" West, along the South line of said Tract "O", for a distance of 879.65 feet;

Thence North 00°04'35" East, for a distance of 33.00 feet;

Thence South 89°55'25" East, for a distance of 879.65 feet to the Northeast corner of said Tract "O";

Thence South 00°04'35" West, for a distance of 33.00 feet to the **POINT OF BEGINNING**;

The bearings in this Description are based upon Port of Portland's Local Projection Coordinate System, shown on the Port of Portland Drawing No. "MD RG 2006-3024".

Exhibit B
(Legal Description of Grantee Parcel)

The real property in the City of Portland, Multnomah County, Oregon, more particularly described as follows:

Beginning at a point in Government Lot 6, Section 27, Township 2 North, Range 1 West, Willamette Meridian, which point is the Northeast corner of that certain tract of land conveyed by S.I. Ogden and Ella Ogden, his wife, T. A. Ketchum and F. C. Knapp, by deed recorded September 30, 1908, in Book 435, Page 125 of deed records of Multnomah County, which point is marked by a 3 inch steel pipe and brass cap;

Thence continuing due East 322.59 feet to the line between Sections 26 and 27, of said township, from which point the corner between sections 26, 27, 34 and 35 bears South 0°06'16" West 543.00 feet and the ¼ corner between Sections 26 and 27 bears North 0°06'16" East 2082.54 feet;

Continuing thence due East 1203.86 feet to a 3 inch steel pipe and brass cap from which point the South ¼ corner of Section 26 bears South 69°25'18" East 1559.62 feet and the center of Section 26 bears North 35°08'23" East 2545.24 feet;

Continuing thence due North 707.92 feet to a 3 inch steel pipe and brass cap to a point hereinafter referred to as Point "A";

Thence due West 1202.05 feet to the line between Sections 26 and 27 from which point the West ¼ corner of section 26 bears North 0°06'16" East 1374.54 feet;

Thence continuing due West 478.07 feet to a 3 inch steel pipe and brass cap to a point hereinafter referred to as Point "B";

Thence due West 190 feet more or less to the ordinary low water line of the Willamette River;

Thence Southerly along the low water line 710 feet more or less to a point due West of the Point of Beginning;

Thence due East 124 feet more or less to a 3 inch steel pipe and brass cap;

Thence continuing due East 165.72 to the POINT OF BEGINNING.

Exhibit C
(Legal Description of Plant Parcel)

The real property in the City of Portland, Multnomah County, Oregon, more particularly described as follows:

Beginning at the aforesaid Point "A" as described in EXHIBIT "A" Description of Plant Property said point being the **POINT OF BEGINNING**;

Thence due West along the North line of said EXHIBIT "A", for a distance of 425.00 feet to the Southeast corner said Tract "O" of "RIVERGATE INDUSTRIAL DISTRICT BLKS. 13 to 25, according to the plat thereof, recorded in Book 1207 of Plats at Pages 18-25, records of Multnomah County, Oregon said point also being the Southeast corner of a 33.00 foot wide access easement;

Thence continuing West along said North line, for a distance of 879.65 feet to the Southwest corner of said 33.00 foot wide access easement;

Thence continuing West along said North line, for a distance of 375.57 feet to aforesaid Point "B" as described in EXHIBIT "A" Description of Plant Property;

Thence continuing West along said North line, for a distance of 269.88 feet;

Thence South, for a distance of 707.92 feet to the West extension of the South line of said EXHIBIT "A";

Thence due East along said West extension and the South line of said EXHIBIT "A", for a distance of 950.10 feet;

Thence North, for a distance of 266.40 feet;

Thence East, for a distance of 400.00 feet;

Thence North, for a distance of 233.60 feet;

Thence East, for a distance of 600.00 feet to the East line of said EXHIBIT "A";

Thence North along said East line, for a distance of 207.92 feet to the **POINT OF BEGINNING**;

Containing 22.359 acres more or less

Exhibit D
(Description of Grantor's Property)

Parcel I:
All the following real property, with the tenements, hereditaments, and appurtenances thereof, situated in Sections 26 and 27, Township 2 North, Range 1 West, of the Willamette Meridian, in the City of Portland, County of Multnomah and State of Oregon, bounded and described as follow, to wit:

Beginning at a point which is 513.22 feet East and 1343.64 North of the Southwest corner of Section 26; thence West 1246.85 feet; Thence North 8°23'12" East along the Harbor Line of the Willamette River 1353.46 feet; thence South 81°36'48" East, 200.00 feet; thence South 8°23'12" West, 300.00 feet; thence South 75 °45'20" East, 846.35 feet; thence South 729.78 feet; thence along a curve left having a radius of 75.00 feet and an included angle of 90 °, a distance of 117.81 feet to the point of beginning.

Parcel II:
The following real property situated in Section 26, Township 2 North, Range 1 West, of the Willamette Meridian, in the City of Portland, County of Multnomah and State of Oregon, bounded and described as follows:

Beginning in the Southwest corner of Section 26, Township 2 North, Range 1 West, of the Willamette Meridian; thence North, 1343.64 feet; thence East, 513.22 feet to the true point of beginning; thence Northwesterly along the arc of a curve to the right having a radius of 75.00 feet and a central angle of 90°00', 117.81 feet to a point which bears North 45°00' West, 106.05 feet from the last described point; thence North, 729.78 feet; thence South 75°45'22" East, 378.87 feet; thence South, 711.55 feet; thence West, 292.20 feet to the true point of beginning.

Parcel III:
An easement for ingress and egress as described in Warranty Deed recorded April 23, 1968 in Book 615, page 1400, being particularly described as follows:
Beginning at a point which is 1205.42 feet East and 1313.64 feet North of the Southwest corner of Section 26; thence West 1943.47 feet; thence North 8°23'12" East, 30.32 feet; thence East 1939.05 feet; thence South 30.00 feet to the point of beginning.

Tract O:
ALL OF TRACT "O" OF THE PLAT OF "RIVERGATE INDUSTRIAL DISTRICT BLKS 13-25", RECORDED MARCH 8, 1977 IN PLAT BOOK 1207, PAGES 18-25, LYING ABOVE THE ORDINARY HIGH WATER LINE, SITUATED IN THE SOUTHWEST ONE-QUARTER OF SECTION 26 AND THE SOUTHEAST ONE-QUARTER OF SECTION 27, TOWNSHIP 2 NORTH, RANGE 1 WEST, WILLAMETTE MERIDIAN, CITY OF PORTLAND, MULTNOMAH COUNTY, OREGON, BEING FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A 3-INCH DIAMETER IRON PIPE WITH BRASS CAP ON TOP AT THE NORTHEAST CORNER OF THAT TRACT OF LAND DESCRIBED IN WARRANTY

DEED TO ASH GROVE LIME & PORTLAND CEMENT COMPANY IN BOOK 2161, PAGE 237, RECORDED APRIL 3, 1963, MULTNOMAH COUNTY DEED RECORDS, SAID POINT IS LOCATED ON THE SOUTH RIGHT OF WAY LINE OF NORTH RAMSEY BOULEVARD; THENCE, ALONG SAID SOUTH RIGHT OF WAY LINE AND THE NORTH LINE OF SAID ASH GROVE TRACT, NORTH 89°55'25" WEST, 425.00 FEET TO THE WESTERLY TERMINUS OF SAID NORTH RAMSEY BOULEVARD AND THE SOUTHEAST CORNER OF SAID TRACT "O" AND THE TRUE POINT OF BEGINNING ; THENCE, ALONG THE SOUTH LINE OF SAID TRACT "O" AND THE NORTH LINE OF SAID ASH GROVE TRACT, NORTH 89°55'25" WEST, 1255.22 FEET TO A 3-INCH IRON PIPE WITH BRASS CAP; THENCE, CONTINUING ALONG SAID SOUTH LINE OF TRACT "O", NORTH 89°55'25" WEST, 122.71 FEET MORE OR LESS TO THE ORDINARY HIGH WATER LINE OF THE WILLAMETTE RIVER; THENCE, ALONG SAID ORDINARY HIGH WATER LINE, NORTH 21°53'34" EAST, 96.94 FEET TO THE NORTH LINE OF SAID TRACT "O"; THENCE, ALONG SAID NORTH LINE, SOUTH 89°55'25" EAST, 86.68 FEET TO A POINT; THENCE, CONTINUING ALONG SAID NORTH LINE, SOUTH 89°55'25" EAST, 1255.22 FEET TO THE NORTHEAST CORNER OF SAID TRACT "O" AND THE WESTERLY TERMINUS OF SAID NORTH RAMSEY BOULEVARD; THENCE, ALONG THE EAST LINE OF SAID TRACT "O" AND NORTH RAMSEY BOULEVARD, SOUTH 00°04'35" WEST, 90.00 FEET TO THE TRUE POINT OF BEGINNING, CONTAINING 122,392 SQUARE FEET (2.81 ACRES) MORE OR LESS.
THE BEARINGS IN THIS DESCRIPTION ARE BASED UPON PORT OF PORTLAND'S LOCAL PROJECTION COORDINATE SYSTEM, SHOWN ON PORT OF PORTLAND DRAWING No. "MD RG 2006-3024".

EXCEPTING THEREFROM: THAT PORTION OF TRACT "O" LYING BELOW ORDINARY HIGH WATERLINE AND ALL MINERALS AND MINERAL RIGHTS IN SAID PROPERTY, WHICH SAID RIGHTS WERE RETAINED BY THE STATE OF OREGON IN DEED RECORDED JUNE 28, 1967, BOOK 568, PAGE 1121, IN THE MULTNOMAH COUNTY DEED RECORDS.

LEASE AGREEMENT

This lease ("***Lease***") is dated _____, 2006, between **Ash Grove Cement Company**, a Delaware corporation ("***Landlord***"), and **Graymont Western US Inc.**, a Utah corporation ("***Tenant***").

WHEREAS,

(A) Landlord owns a plant in Portland, Oregon that produces construction products that include quicklime and hydrated lime, which is produced by hydrating quicklime;

(B) Landlord has announced that it will permanently close its kilns in the plant and terminate its production of quicklime due to the age and inefficiency of that equipment and, due to the termination of its quicklime production, Landlord will also stop producing hydrated lime;

(C) Landlord will continue to produce crushed stone and agricultural lime products at the plant ;

(D) Tenant owns lime plants in Utah, Nevada, Montana and Washington that produce similar lime products and wishes to use Landlord's product handling facilities, principally storage silos and conveyors, and its hydrating facilities to enhance Tenant's ability to deliver its lime products to its customers;

(E) Tenant desires to lease Landlord's idle product handling and hydrating facilities and, in connection with such leasing and use, Tenant needs to install additional equipment to enable rail cars to unload lime products into Landlord's product handling facilities;

NOW, THEREFOR, the parties hereby agree as follows:

ARTICLE I
Definitions

Section 1.01 Definitions: Whenever capitalized in this Lease, the terms below have the following meanings, unless otherwise specified, or unless the context clearly indicates a contrary meaning:

(a) ***Additional Rent***: All amounts other than Rent that Tenant is required to pay Landlord under this Lease, including without limitation, specific utilities and other payments that Tenant is obligated to pay Landlord (or to reimburse Landlord for any payments made by Landlord).

(b) ***Base Rent***: The Rent for the Premises as set forth in Section 2.02, below. All amounts are in United States dollars.

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(c) ***Commencement Date***: 12:00 a.m., June 1, 2006.

(d) ***Default Rate***: An interest rate equal to the lesser of 12% per year or the highest legal rate.

(e) ***Environmental Condition***: Any adverse condition relating to surface water, ground water, drinking water supply, land, surface or subsurface strata or the ambient air, and including without limitation, air, land and water pollutants, noise, vibration, light and odors, which may result in a claim of liability under the Comprehensive Environment Response Compensation and Liability Act, as amended ("***CERCLA***"), or the Resource Conservation and Recovery Act ("***RCRA***"), or any claim of violation of the Clean Air Act, the Clear Water Act, the Toxic Substance Control Act ("***TSCA***"), or any claim of liability or violation under any federal statute hereafter enacted dealing with the protection of the environment or with the health and safety of employees or members of the general public, or under any rule, litigation, permit or plan now in existence or hereafter promulgated under any of the foregoing, or under any law, rule or regulation now or hereafter promulgated by the state in which the Premises are located, or any political subdivision thereof, relating to such matters (collectively ***"Environmental Laws"***).

(f) ***FFE***: All furnishings, equipment, personal property, improvements, alterations, and fixtures installed, used, operated, brought or constructed by Tenant at the Premises, including, without limitation, the Unloader Facility.

(g) ***Governmental Authority***: All courts, legislative, executive, judicial and quasi-judicial bodies, agencies, boards, commissions and authorities of any nature of or for any governmental or quasi-governmental unit (federal, state, county, city, municipal or otherwise) at any time in existence, including without limitation, benefit and utility districts and commissions, boards and other bodies in respect thereof.

(h) ***Hydrator Equipment***: That equipment and related facilities defined in Section 5.05.

(i) ***Identified Assets***: The assets listed and identified on **Exhibit A**, attached.

(j) ***Labor Agreement***: The agreement(s) described in Section 7.02(b).

(k) ***Landlord's Property***: The Plant Property excluding the Premises.

(l) ***Laws***: All applicable laws, regulations, rules, ordinances and orders of any Governmental Authority.

(m) ***Legal Requirements***: (1) all Laws; (2) the organizational documents, articles, bylaws, partnership agreements, operating agreements and the like of the applicable party; and (3) all Permits that relate to the use of the Premises. .

(n) ***Option Term***: The extension of the Term effected upon exercise of Tenant's right to extend the Term of this Lease one time for 3 years beyond the expiration of the original Term of this Lease, as provided under Section 2.06.

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(o) ***Permitted Uses***: Tenant's use and occupancy of the Premises for unloading, storing, bagging, handling, distributing and loadout of Tenant's quicklime and hydrated lime and for producing hydrated lime in accordance with the terms of this Lease and reasonably related lawful uses. The Premises shall not be used for any purpose that creates a nuisance.

(p) ***Permittees:*** Each of Landlord and Tenant and their respective successors, and assigns with respect to their interests in the Premises and as to Landlord, Landlord's Adjacent Property, and their respective employees, representatives, agents, licensees, business visitors, permittees, contractors, customers, and invitees. The "***Landlord's Permittees***" and similar terms shall mean the Permittees whose rights derive from Landlord. The "***Tenant's Permittees***" and similar terms shall mean the Permittees whose rights derive from Tenant.

(q) ***Plant Property:*** The real property of Landlord contiguous to and including the Premises and more specifically described on attached **Exhibit C**, and facilities thereon.

(r) ***Premises***: The leased premises consists of that portion of the Plant Property, shown within the blue crosshatching on the diagram marked as **Exhibit B-1**, together with all buildings, fixtures, and improvements including hydrators and all related equipment, thereon and all cross easements, rights and appurtenances related thereto.

The appurtenances referenced above shall include all rights of ingress and egress, utility service and other appurtenant rights related to and used or useful in connection with the Premises or use or occupancy thereof, all of which shall be for the benefit of Tenant under this Lease.

(s) *Refusal Notice and Refusal Offer:* As defined in Article XII.

(t) ***Term***: The original Term, beginning June 1, 2006 and ending December 31, 2011, unless extended as provided in Section 3.04. 4yr 7mo

(u) ***Unloader Facility***: The rail unloading facility to be constructed on the Premises by Tenant to unload quicklime and hydrated lime from railcars into the existing silos included in the Identified Assets as such facility may now or hereafter be constructed or altered by Tenant under this Lease.

ARTICLE II
Lease, Rent, Payment

Section 2.01 Lease. Landlord leases the Premises to Tenant, and Tenant accepts and leases the Premises from Landlord, for the Term, at the rental rate and on the terms and conditions of this Lease.

Section 2.02 Lease Term and Base Rent. Landlord leases the Premises and Identified Assets to Tenant for the Term, subject to extension as provided herein. For the period between June 1, and December 31, 2006, Tenant agrees to pay to Landlord rent of Redacted per month, in advance. Beginning January 1, 2007, through the end of the Term, and, if exercised, the Option Term, annual rent will be Redacted to be paid monthly in advance, at Redacted per month. Payment is due by the first day of the month.

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Section 2.03 Inventory Purchase. On the Commencement Date, Landlord shall have caused the silos on the Premises to be substantially filled with bulk materials as indicated below, of at least the same quality as Landlord supplied to its customers in the previous year of operations before the Commencement Date, and will sell and Tenant will purchase all of Landlord's existing inventory of the listed products, in the silos or in bags, at the following prices:

Pebble quicklime (bulk in silo)	Redacted
Pebble quicklime (50# bags)	Redacted
Hydrated lime (bulk in silo)	Redacted
Hydrated lime (50# bags)	Redacted

An inventory shall be performed jointly by a representative for Landlord and a representative for Tenant as close to the Commencement Date as possible. The inventory levels shall be determined and agreed on by the representatives, and payment for the inventory shall be made to Landlord within 10 days of the completion of the inventory at the same place and in the same manner as the payment of Rent. On the Commencement Date, Landlord shall provide Tenant with copies of Landlord's quality production data for the production of quicklime and hydrated lime for the last month of operation before the Commencement Date.

Section 2.04 Terms of Payment. All monthly installments of Rent shall be paid by electronic transfer at the following institution and account:

Bank of America Texas
Phone: 816-979-7503
Attention: Michael Viazzolli
ABA No.: 0260-0959-3
Ash Grove Cement Company Account No.: 3750967131
RE: Rivergate-Graymont Lease

or such other single account or place as may be designated by Landlord by not less than 30 days prior written notice to Tenant. All Rent amounts must be timely paid without demand and without set-off or reduction. If Tenant fails to pay any amount owed Landlord under this Lease when due and such failure continues more than 5 days after written demand for payment from Landlord, the amount due will bear interest at the Default Rate until the amount is paid in full.

Section 2.05 No Set-Off. No amounts owed by Landlord to Tenant, whether due under this Lease or otherwise, may be deducted or setoff by Tenant against the rent payments due or coming due from Tenant to Landlord under this Lease.

Section 2.06 Tenant's Option to Extend the Lease Term. Landlord grants Tenant the option to extend the Term of this Lease once for 1 term of 3 years, subject to the terms and conditions of this Lease. Tenant's election to extend this Lease through the Option Term shall be exercised by written notice delivered to Landlord at least 180 days before the expiration of the Term. If Tenant exercises the option to extend this Lease for the Option Term, each of the terms, covenants, and conditions of this Lease shall apply during the Option Term as though the

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expiration date of the Option Term was the date originally set as the expiration date of the Term. The Option Term, if exercised, expires on December 31, 2014. Tenant may not exercise the option to extend at any time Tenant is in default of this Lease beyond the period, after notice from Landlord, allowed for Tenant to cure the same as provided in this Lease.

ARTICLE III
Use, Compliance with Laws

Section 3.01 Tenant's Use of Premises. Subject to Section 3.02, below, Tenant will use the Premises solely for the Permitted Uses. Tenant will not perform any acts or carry on any practices that may damage any portion of the Premises that Tenant does not repair as and when required in this Lease.

Section 3.02 Tenant's Compliance with Law. Tenant will, at Tenant's expense, comply with all Legal Requirements, including Environmental Laws, pertaining to Tenant's use and occupancy of the Premises and the manner in which Tenant conducts its operations thereon, unless compliance relates to a preexisting Environmental Condition, in which case Landlord must pay the cost of such compliance. Tenant may change, amend or cease its use of the Premises in whole or in part to maintain compliance with all Legal Requirements.

Section 3.03 Tenant's Compliance with Environmental Laws. Without limiting Section 3.02, Tenant shall comply with all Environmental Laws applicable to Tenant's use or occupancy of the Premises and shall not cause, contribute to or permit any of Tenant's Permittees to cause or contribute to any Environmental Condition on the Premises. Tenant shall not, without Landlord's prior written consent, bring, maintain or use on the Premises any substance for which a filing with a local emergency planning committee, the State Emergency Response Commission or the fire department having jurisdiction over the Premises is required pursuant to § 311 and/or § 312 of CERCLA, as amended by the Superfund Amendment and Reauthorization Act of 1986 ("*SARA*")(including the Emergency Planning and Community Right-To-Know Act of 1986); except those substances used or useful in connection with the commercially reasonable and lawful operation of the Premises by Tenant for the Permitted Uses. If Tenant makes a filing pursuant to SARA, or maintains substances for which a filing would be required, Tenant shall simultaneously deliver copies of the filing to Landlord or notify Landlord in writing of the presence and amounts of those substances brought, maintained or used (or proposed to be brought, maintained or used) on the Premises by Tenant. Nothing in this Lease shall prohibit Tenant from using the Premises or portion thereof for the safe and proper use and storage of lubricants, cleaning materials, solvents or other substances or compounds used or useful in connection with Tenant's operations on or from the Premises or the maintenance of the Premises required of Tenant under this Lease provided the same are lawfully stored on the Premises in quantities no greater than are necessary for reasonably anticipated uses, and further provided that such use and storage of such materials and the disposal of any waste from such use and storage complies with all Legal Requirements.

Section 3.04 Permits. Landlord shall promptly apply for and use best efforts to obtain as soon as possible after execution of this Lease, and thereafter shall maintain in effect as the same relate to the Premises, at Landlord's expense, all permits (or amendments to existing permits) required by Law for the operation of the Premises and Identified Assets for the

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Permitted Uses by Tenant for the Term of this Lease (and, if exercised, for the Option Term), including those required for the installation and operation of Tenant's Unloader Facility. All the permits shall be in form and substance reasonably acceptable to Tenant. Landlord and Tenant shall promptly and reasonably consult and cooperate with each other in connection with Landlord applying for, obtaining and maintaining the permits (or amendments) and in responding to any inquiry from a Governmental Authority respecting Tenant's or Landlord's operations on the Premises. If any Permit imposes restrictions or requirements that materially and adversely restrict Tenant's use of the Premises under this Lease, Tenant may terminate this Lease by written notice to Landlord, which termination shall have the effect described for a termination under Section 3.07, below. Landlord represents and warrants and Tenant acknowledges that Landlord has obtained an air contaminant discharge permit from the Oregon Department of Environmental Quality, Permit #26-1891, effective February 17, 2004, pursuant to ORS §468A.040, *et seq.* (*"Air Permit"*), and a National Pollution Discharge Elimination System waste discharge permit from the Oregon Department of Environmental Quality, issued pursuant to §468B.050, *et seq.*, and the Federal Clean Water Act, Permit #102465, effective February 14, 2005, *("NPDES Permit")* (together with the other permits required to be obtained and maintained by Landlord hereunder meeting the requirements of this Section 3.04, collectively the **"Permits"**).

Section 3.05 No Change to Permits Affecting Tenant's Use Without Consent. Landlord shall not seek, agree to or acquiesce in any change, termination, or transfer of any Permit that would affect Tenant's use of the Premises unless it is expressly approved in writing by Tenant. Each party further agrees to promptly notify the other of any notice of any violation of any Permit or applicable Legal Requirements relating to the Premises received by such party from any Governmental Authority. Tenant agrees to promptly correct all such violations to the extent they are caused by Tenant's use or operation of the Premises. Landlord agrees to promptly correct all such violations to the extent they are not caused by Tenant's use or operation of the Premises. Tenant shall be responsible for payment of all fines, penalties or costs relating to the Premises that arise in connection with Tenant's violation of any of the Permits.

Section 3.06 Landlord's Entry and Compliance with Permits. Landlord shall not cause or suffer any violation of the Permits and shall be responsible for payment of all fines or penalties relating to the Premises or Landlord's Property in connection with any Permit violation if the violation is not caused by Tenant or its Permittees. Tenant hereby grants Landlord a right of entry upon the Premises, at all reasonable times upon reasonable prior notice to and in coordination with Tenant, to monitor Tenant's compliance with the Permits.

Section 3.07 Failure to Obtain Permits. If Landlord has not obtained all Permits by August 31, 2006, all Rent owed by Tenant under this Lease for any period thereafter shall abate and Tenant shall owe no Rent under this Lease until Landlord obtains all the Permits required under this Article III, Section 3.07 and delivers copies thereof to Tenant, unless the Permits are unavailable through no fault of Landlord or for reasons beyond Landlord's reasonable control. If Landlord has not obtained and delivered copies of all Permits to Tenant by December 31, 2006, other than solely due to Tenant's failure to provide drawings, documents or other information required to be supplied by Tenant for Landlord to obtain the Permits, Tenant may terminate this Lease with respect to rights and obligations not then accrued by notice to Landlord. If Tenant so terminates this Lease, this Lease shall terminate as of the date specified in

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Tenant's termination notice and Tenant shall deliver the Premises to Landlord, subject to the rights and obligations of the parties upon the expiration or earlier termination of this Lease, including Tenant's right to remove its FFE and the Hydrator Equipment as provided herein.

ARTICLE IV
Condition of Premises

Section 4.01 Initial Condition of Premises. Except as specifically set forth in this Lease (a) Landlord makes no representations or warranties about the condition of the Premises, their fitness or availability for any particular use or about the absence or presence of Environmental Conditions, and (b) Tenant is leasing the Premises in their "AS IS" condition, location and state of repair. Except as provided in this Lease or applicable Laws, Landlord is not liable for any latent, patent or other defects and conditions therein. Tenant will, subject to the provisions of this Lease, make, construct, install and/or repair any building systems or other improvements not already in place on the Premises that Tenant deems necessary or appropriate for Tenant's use of the Premises, all at Tenant's sole cost and expense.

Section 4.02 Condition at Surrender. Subject to the provisions of this Lease allowing Tenant to remove the Tenant FFE and the Hydrator Equipment, as defined below, Tenant will surrender the Premises at the expiration or termination of the Lease in substantially as good condition and order as it was received, ordinary wear and tear, matters covered by the waiver of subrogation, casualty loss and condemnation provisions of this Lease, and matters for which Landlord is responsible excepted. Subject to the waiver of subrogation provisions of this Lease and Tenant's right to remove the Tenant FFE and the Hydrator Equipment, , Tenant shall pay for the repair of any damage to the Premises or any part thereof, resulting from the negligence of Tenant or its Permittees . Any injury done to the Premises by Tenant or its Permittees in connection with the removal of the Tenant FFE or the Hydrator Equipment shall be repaired by Tenant in compliance with section 5.05.

ARTICLE V
Repairs, Alterations, Reconstructions

Section 5.01 Tenant's Maintenance Obligations. During the Term, and, if exercised, the Option Term, Tenant shall maintain the interior and exterior of the Premises to the extent exclusive possession thereof is given to Tenant under this Lease, at Tenant's expense, substantially in at least as good condition and state of repair as on the Commencement Date, ordinary wear and tear, matters covered by the waiver of subrogation, casualty loss and condemnation provisions of this Lease, and matters for which Landlord is responsible excepted, subject to the other terms and conditions of this Lease. If Tenant neglects or refuses to make repairs for which Tenant is responsible under this Lease to Landlord's reasonable satisfaction within the period after written demand allowed Tenant by this Lease, Landlord may make such repairs without liability to Tenant for any loss or damage that may accrue to Tenant's merchandise, fixtures or other property or to Tenant's business by reason thereof if Landlord takes commercially reasonable precautions not to damage or unreasonably interfere with the same. Upon completion by Landlord of such repairs for which Tenant was responsible as provided above, Tenant shall pay Landlord's reasonable out-of-pocket costs for making such repairs upon presentation of a bill for such costs, reasonably documenting the amount so

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claimed. On the Commencement Date, Landlord will deliver its existing inventory of spare parts to Tenant free of any claim, lien or interest of any third party for Tenant's use in maintaining the Identified Assets. Tenant will be responsible, at its sole cost, for obtaining all other spare parts necessary for maintaining the Identified Assets during the Term.

Section 5.02 Landlord's Maintenance Obligations. Except as otherwise provided in this Lease, Landlord will have no obligation to repair or maintain the areas of the Premises occupied solely by Tenant hereunder during the term hereof, unless such damage is caused by Landlord or its Permittees or the parties agree otherwise in writing. Landlord will maintain any common areas on Landlord's Property during this Lease.

Section 5.03 Interference with Tenant's Use of Premises. Rent otherwise owed by Tenant under this Lease shall be abated proportionately to the extent any Remediation activities interfere with or interrupt Tenant's use or enjoyment of the Premises or rights granted under this Lease for the period of the interference. If the period of interruption or interference materially and adversely affects Tenant's use and enjoyment of the Premises or rights under this Lease for more than $1/10^{th}$ of the remaining Term or, if exercised, the Option Term, Tenant may terminate this Lease upon written notice to Landlord with the effect described in Section 3.07, above. If any Environmental Condition on the Premises or Landlord's Property not caused by Tenant materially and adversely affects Tenant's use of the Premises, Tenant may terminate this Lease with respect to rights and obligations not then accrued, by notice to Landlord, in which event the Lease shall terminate as of the date specified in Tenant's termination notice, and Tenant shall deliver the Premises to Landlord, subject to the rights and obligations of the parties upon the expiration or earlier termination of this Lease, including Tenant's right to remove its FFE and the Hydrator Equipment as provided herein.

Section 5.04 Additions and Alterations. Excluding the Unloader Facility, Tenant shall not make any other structural alterations, additions or improvements to the Premises in excess of $200,000 individually, without first obtaining Landlord's written approval and consent. Except as expressly provided in this Lease, any such alterations, additions or improvements made by Tenant shall be made at Tenant's sole cost and expense, must be completed in a good and workmanlike fashion, and must comply with all Legal Requirements. Alterations made by Tenant, in compliance with this paragraph, may be removed by Tenant at the termination of this Lease, however occurring, and all injury done to the Premises by Tenant in connection with the removal of said Tenant FFE shall be repaired in compliance with Section 5.05.

Section 5.05 Fixtures and Equipment. Within 90 days after the expiration or earlier termination of this Lease, Tenant may, at Tenant's expense, remove all of Tenant's FFE, including, the Unloader Facility and any other fixtures installed by Tenant, and repair all injury done to the Premises by or in connection with the removal of said FFE, and surrender the Premises, in substantially as good condition as it was at the beginning of the Term, reasonable wear and tear, matters covered by the waiver of subrogation, casualty loss and condemnation provisions of this Lease, and matters for which Landlord is responsible excepted. Further, within 90 days after expiration or earlier termination of this Lease, if the termination is not for Tenant's Default, Tenant may choose to remove Landlord's hydrator, including the grinding mill, dust collector and any related spare parts ("**Hydrator Equipment**") at Tenant's sole cost. If Tenant removes the Hydrator Equipment, Landlord will furnish Tenant a bill of sale for the Hydrator

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Equipment, as consideration for the Hydrator Equipment's removal, which bill of sale shall warrant title to the Hydrator Equipment in Tenant free of any claim, lien or interest of any third party, except those claiming through Tenant.

Section 5.06 Statutory Liens. Tenant shall promptly pay for all labor done or materials furnished in respect of any work, repair, maintenance, improvement, alteration or addition done by Tenant on the Premises, and hold the Premises and Landlord harmless from any lien that could arise by reason of the work. If any lien is filed against the Premises, Tenant either shall cause the lien to be discharged of record within 30 days of it filing, or, if Tenant determines that the lien should be contested, then, within such 30-day period, Tenant shall either bond over the lien pursuant to applicable law or furnish other security that in Landlord's reasonable opinion may be necessary to prevent foreclosure proceedings against the Premises during the lien contest, and/or to satisfy any judgment on the lien, including the costs and expenses and reasonable attorneys' fees and judgment interest. If Tenant fails to discharge a lien and fails to bond over the same or to furnish the security described above within the period(s) described above, then, in addition to Landlord's other rights or remedies, Landlord may discharge the lien by paying the amount claimed, or in any other manner that is prescribed by law or lesser amount that is acceptable to the lien claimant to remove said lien. On Landlord's demand, Tenant shall pay Landlord all sums Landlord disbursed to discharge the lien, including Landlord's reasonable costs, expenses and reasonable attorneys' fees.

ARTICLE VI
Utilities and Taxes

Section 6.01 Utilities. Electricity shall be separately metered to the Premises for Tenant's operations. If not already separately metered, Landlord and Tenant shall reasonably cooperate to have a new meter installed as soon as practicable after the Commencement Date and Tenant shall be responsible for the meter installation fee and any connection fee charged by the electric utility provider to install such new meter for the Premises. Tenant shall contract for and shall pay, before delinquency, all charges and deposits for electricity, telephone and any other utilities or services used by it or furnished to the Premises, except as otherwise provided in this Lease. Landlord shall pay for Tenant's water and sanitary sewage usage, and Landlord shall pay the cost of supplying natural gas to the existing warehouse space heater on the Premises.

Section 6.02 Personal Property Taxes. Tenant shall pay all taxes levied upon Tenant's personal property in, on and about the Premises, including Tenant's trade fixtures, equipment and inventory kept on the Premises.

Section 6.03 Real Property Taxes and Assessments. Landlord shall pay all real estate taxes, general and special assessments and levies assessed against the Premises during the Term (collectively "***Taxes***").

ARTICLE VII
Indemnification, Subrogation

Section 7.01 Indemnification of Landlord. Except as to matters within the scope of Article XIII that arise out of or relate to any entry by any of Landlord's Permittees, or that are

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otherwise the responsibility of Landlord under this Lease, Tenant will indemnify and defend Landlord from and against all claims, actions, damages, liability and expense, including reasonable attorneys' fees and costs, in connection with personal injury, death or damage to property to the extent arising from or out of Tenant's use of the Premises during the Term (and, if exercised, the Option Term) except to the extent such relates to any condition of the Premises (including but not limited to any Environmental Condition) existing on the Commencement Date, migrating to or from the Premises after the Commencement Date (and not caused by Tenant) or that results from or arises out of the negligent or willful conduct of Landlord or its Permittees. Tenant's obligation to indemnify, hold harmless or defend Landlord, or any other person under this Lease, shall not extend to any claim, cost, fees, expenses or liabilities to the extent such arise out of or are related to the conduct of Landlord or its Permittees , and Tenant's obligations are subject to the provisions of this Lease regarding waiver of subrogation and limitation on damages.

Section 7.02 Indemnification of Tenant.

(a) Except as to matters within the scope of Article XIII or Section 7.02(b), below, Landlord will indemnify and defend Tenant from and against all claims, actions, damages, liability and expense, including reasonable attorneys' fees and costs, in connection with personal injury, death or damage to property to the extent arising from or out of any condition of or occurrence on the leased Premises or Landlord's Property or any common area serving or burdening the Premises existing on the Commencement Date, or otherwise caused by or arising out of the conduct of Landlord or Landlord's Permittees, except to the extent such results from the negligent or willful conduct of Tenant or its Permittees.

(b) During the Term of this Lease, Landlord will indemnify and defend Tenant from and against any employee retirement benefit costs, losses, reasonable expenses (including reasonable attorney fees), claims, damages and actions that Tenant incurs as a result of a final order or determination binding on Tenant by the National Labor Relations Board, a court, or arbitrator determining under Article 19 of Landlord's existing labor agreement or any successor agreement (**"Labor Agreement"**) that Tenant is a party to the Labor Agreement and that requires Tenant to assume and pay any employee retirement benefit obligations specified in the Labor Agreement.

Section 7.03 Waiver of Subrogation. Each party waives its right of recovery against the other for any loss or damage that is covered by any property, general liability or workers' compensation insurance policy required to be carried under Article 8, below, or other property insurance policies actually carried by the respective party, whichever provides the greatest coverage, and agrees that there shall be no subrogated claim by one party's insurance carrier against the other party arising out of any such loss to the extent that the party's loss or damage is or would be covered under such insurance policies. Each party shall immediately give notice of this waiver to its insurance carriers and obtain any endorsements required to give effect to this waiver of subrogation.

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ARTICLE VIII
Insurance

Section 8.01 Insurance Obligations. The Landlord and Tenant shall each carry and maintain, during the entire Term and any extension, at its sole cost and expense, the following types of insurance, in the amounts specified and in the form hereinafter provided for:

(a) ***Property Insurance.*** All Risk insurance including flood and earthquake covering, in the case of the Landlord, all property and fixtures of Landlord at the Premises, and in the case of the Tenant, all FFE and inventories of Tenant, to their full insurable value, calculated on a replacement cost basis. .

(b) ***Liability Insurance.*** Commercial general liability insurance protecting the insured party against claims and liabilities for injury or damage to persons or property or for the loss of life or property occurring on the Premises caused by or resulting from any act or omission of the insured party or its Permittees. The policy or policies of insurance required under this paragraph must provide liability coverage of at least $10,000,000. Each party's respective insurance, and each certificate thereof, shall name the other party as an additional insured, and evidence the waiver of any rights of subrogation as described in Section 7.03, above. Certificates of such coverages will be issued and delivered to the other party as soon as possible after the Lease is signed and then, on an annual basis, as soon as practicable after the renewal of the applicable insurance policy.

(c) ***Automotive Liability.*** Liability insurance covering owned, non-owned and hired automobiles, with limits of liability of not less than $1,000,000 per occurrence combined single limits for bodily injury and property damage.

(d) ***Workers' Compensation/ELA.*** Workers' compensation or similar insurance with limits of liability of not less than the minimum amount required by law and Employer's Liability coverage of not less than $500,000.

Section 8.02 Notice of Cancellation. All insurance policies required to be maintained by a party under this Lease shall provide that the insurance company will endeavor to provide the other party with at least 30 days' prior notice before such policies are cancelled or terminated. Each party agrees that before expiration of any insurance policy required to be carried under this Lease, such party will cause the insurer to deliver to the other party a certificate consistent with this Lease indicating that the policy or policies have been renewed, or else deliver certificates of coverage from another good and solvent insurance company approved to issue such coverage in Oregon.

Section 8.03 Each Party's Own Insurance/No Consequential Damages. Each may, at its option and sole expense, purchase business income, business interruption, extra expense or similar coverage. Neither party shall be liable to the other for any business interruption or other consequential loss or damage sustained by the other party, whether or not it is insured.

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ARTICLE IX
Assignment and Sublease

Section 9.01 Assignment and Subletting. Except as otherwise provided in this Lease, Tenant shall not assign, transfer or encumber this Lease or any part hereof without Landlord's express prior written consent, which shall not be unreasonably withheld, conditioned or delayed. Any change in the ownership or power to vote a majority of Tenant's outstanding voting stock or partnership interest in Tenant shall constitute an assignment requiring Landlord's consent, except as provided below.

Section 9.02 Involuntary Assignment. Except as otherwise provided in this Lease, no interest of Tenant in this Lease shall be assigned by operation of law. Each of the following acts shall be considered an involuntary assignment:

(a) If Tenant is or becomes bankrupt or insolvent, makes an assignment for the benefit of creditors or institutes a proceeding under the Bankruptcy Code in which Tenant is the debtor;

(b) If a writ of attachment or execution is levied on Tenant's interest in this Lease; or

(c) If, in any proceeding or action to which Tenant is a party, a receiver is appointed with authority to take possession of Tenant's interest in the Premises.

Section 9.03 Permitted Assignments. Tenant may assign this Lease or sublet the whole or any part of the Premises without the further approval of Landlord to any one or more of the following:

(a) any person, corporation, partnership or other business entity which, directly or indirectly, controls, is controlled by, or is under common control with, Tenant;

(b) any corporation, or other business entity into or with which Tenant shall be merged or consolidated or to which all or substantially all of the assets of Tenant shall be transferred;

(c) an assignment or transfer of this Lease in connection with a sale of all or substantially all of the assets or business of Tenant.

Tenant shall promptly notify Landlord of any assignment or transfer described in Section 9.03 (a), (b) or (c), above, and provide Landlord with a copy of the applicable assignment and assumption agreement and the contact information for the assignee/transferee.

Section 9.04 Continuing Liability. If Landlord consents to an assignment of this Lease, or an assignment occurs for which Landlord's consent is not required, then Tenant shall continue to be fully liable hereunder, and Landlord shall have all remedies against Tenant in the event of a subsequent breach of this Lease, as if the assignment had not taken place, unless Landlord otherwise agrees.

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ARTICLE X
Default and Remedies/Abandonment

Section 10.01 Default. The occurrence of any one or more of the following events shall be a default and breach of this Lease by Tenant:

(a) Tenant fails to pay Rent or Additional Rent to Landlord when within 5 days after written notice to Tenant that the amount is past due.

(b) Tenant fails to observe or perform any other provision of this Lease to be observed or performed by Tenant other than payment of Base Rent or Additional Rent, where Tenant's failure continues for 30 days after written notice specifying the default from Landlord to Tenant; provided, however, that if Tenant's failure reasonably requires more than 30 days for its cure, then Tenant shall not be in default if Tenant commences to cure the default within the 30-day period and then diligently proceeds to cure the failure.

(c) Tenant makes any general assignment or general arrangement for the benefit of creditors; or Tenant files, or there is filed against Tenant, a petition for reorganization or liquidation under any law relating to bankruptcy unless, in the case of a petition filed against Tenant, the petition is dismissed within 60 days; or a trustee or receiver is appointed to take possession of substantially all of Tenant's assets at the Premises or to take possession of Tenant's interest in this Lease, unless possession is restored to Tenant within 60 days; or the attachment, execution or other judicial seizure of substantially all of Tenant's assets located at the Premises or of Tenant's interest in this Lease, where such seizure is not discharged in 60 days.

Section 10.02 Remedies. On Tenant's default, if Landlord elects to terminate this Lease, Landlord may immediately reenter the Premises, terminate Tenant's right to possession of the Premises and recover from Tenant all damages Landlord incurs because of Tenant's default, including without limitation Landlord's reasonable attorneys' fees.

Section 10.03 No Waiver of Default. Neither party's failure to take action as a result of any default or breach of covenant by the other shall be a waiver thereof, nor shall any custom or practice in the industry be construed to waive or limit either party's right to require the other party's performance of any term, covenant or condition of this Lease, or to exercise any rights on account of any default. A waiver on one occasion of a particular breach or default shall not constitute a continuing waiver or a waiver of any subsequent default, breach or failure. The acceptance of any sums of money from Tenant after the expiration of any cure period provided herein shall be a payment on account by Tenant and shall not constitute a waiver by Landlord of any of its rights under this Lease or at law, nor shall it reinstate this Lease or cure a default on the part of Tenant unless Landlord so agrees in writing.

Section 10.04 Remedies Cumulative. Each party reserves all its rights and remedies hereunder and all others provided by law, and the rights shall be cumulative and not exclusive of any other right or remedy, subject to the express limitations in this Lease. Without limiting the forgoing, each party shall be entitled to an injunction in proper cases to enforce any part or parts of this Lease or to prevent any violation or default on the part of the other party.

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Section 10.05 Right to Cure Default. If Landlord or Tenant defaults in performing any covenant under this Lease, then, after notice to and without waiver or releasing such party from the performance thereof, the other party may perform the covenant and/or pay necessary and incidental costs in connection therewith. All sums so paid by the other party, together with interest at the Default Rate, will be, if owed to Landlord by Tenant, Additional Rent and will be paid to Landlord by the next Rent due date and, if owed by Landlord to Tenant, will be paid to Tenant within 10 days of written demand therefor from Tenant.

Section 10.06 Abandonment. If this Lease expires or terminates for any reason, and Tenant fails to remove the Tenant FFE and Hydrator Equipment from the Premises within the period provided in this Lease (subject to force majeure as provided herein), Landlord will deem the Tenant FFE items and Hydrator Equipment items then remaining on the Premises as abandoned and dispose of the items as Landlord deems fit, and Tenant hereby releases and discharges Landlord and its directors, officers, employees, and agents from any claims, or other damages regarding the Tenant FFE items and Hydrator Equipment then left on the Premises by Tenant.

Section 10.07 Holding Over. Subject to Tenant's right to remove Tenant's FFE and the Hydrator Equipment after the Lease ends as provided in this Lease, if Tenant remains in possession of the Premises after expiration or earlier termination of the Lease Term (or, if exercised, the Option Term) without Landlord's written consent, Tenant's continued occupancy shall be deemed a month-to-month tenancy terminable upon 30 days' written notice given by either party at any time. During such holdover occupancy, Tenant shall pay all Rent and Additional Rent related thereto and perform all obligations required of it by this Lease during the Term (or, if the holding over follows the Option Term, the Option Term), except that Rent during such holdover occupancy shall be at a rate equal to the Rent during the Term , payable in monthly installments in advance as otherwise provided in this Lease.

ARTICLE XI
Transfer of Landlord's Interest

Landlord and any party succeeding to Landlord's interest herein, subject to the terms and conditions of this Lease, including the right of first refusal described in Article XII, below, may transfer, assign, convey or otherwise dispose of the Premises and the interest in this Lease and in such event shall be free from and relieved of all covenants and obligations of the Landlord herein provided and from any liability resulting from any act or omission or event to the extent occurring after the conveyance or other disposition provided that Landlord shall not be relieved of any liability under this Lease in connection with any transfer by Landlord or otherwise (1) that breaches Tenant's right of first refusal or the Option Term extension, or (2) any liability of Landlord, regardless of when such accrues, under any indemnification obligation of Landlord under this Lease or any Environmental Condition of the Premises or Landlord's Property for which the Landlord is responsible under this Lease, except to the extent such liability arises with respect to conditions that did not exist before such transfer or that are caused solely by such transferee (or a subsequent transferee) after such transfer, or (3) with respect to matters other than those liabilities that survive under (1) or (2), above, for any period before the earlier to occur of (i) the date Landlord actually transfers Landlord's entire interest in the Premises to a financially responsible transferee, and (ii) the date Landlord and the transferee give written

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notice (duly executed by Landlord and the transferee) to Tenant of the transfer and the transferee agrees in the notice to assume all the obligations of Landlord hereunder together with a fully signed assignment and assumption agreement from Landlord to the transferee consistent with this Lease.

ARTICLE XII
Tenant's Right of First Refusal

Landlord will not sell, lease or otherwise dispose of the Plant Property, or any part thereof or any interest therein, during the Term of the Lease, or, if exercised, the Option Term, unless Landlord first notifies Tenant, in writing ("Refusal Notice"), of the cash price or rent, terms and conditions of a proposed sale, lease or other disposition pursuant to any bona fide written offer from a third party that Landlord is willing to accept, together with a copy of such offer signed by the third-party offeror ("Refusal Offer"); and Landlord agrees that Tenant shall have the right to purchase or lease the Plant Property at the same price or rent and upon the same terms and conditions that are contained in the Refusal Offer. Tenant may exercise this right at any time within 30 days after Tenant receives Landlord's Refusal Notice. Tenant's right of first refusal must be exercised by giving written notice to Landlord within said 30-day period. Upon exercising this right, Tenant shall have 30 days after giving notice to Landlord to make payment and accept title to or lease the Plant Property on the terms and conditions of the Refusal Offer as modified by this Article XII, unless the terms and conditions of the offer specify a period of more than 30 days for the closing, in which case Tenant shall have the longer period, unless the parties agree to a different time period for the closing. If Tenant does not exercise its first refusal right for a Refusal Offer within the 30-day period, Landlord shall have the right to complete the transfer to the third-party offeror and on the terms described in the Refusal Offer, but not otherwise. Any sale or lease of the Plant Property or any portion thereof or interest therein (including any third-party offer, whether or not Tenant accepts any Refusal Offer) shall at all times be strictly subject and subordinate to this Lease and Tenant's rights and interests hereunder, including, without limitation, Tenant's first refusal right, whether or not Tenant exercises its first refusal right.

ARTICLE XIII
Environmental Conditions

Section 13.01 Notice Obligations. Each party covenants to promptly (a) make good faith efforts to give written notice to the other party upon becoming aware of the presence or alleged presence of any Environmental Condition on the Premises that was not known to such party on the Commencement Date, with a full description thereof; (b) advise the other party in writing of any notices received by such party, or such party's authorized representatives, concerning any claims of Environmental Conditions, or violation or potential violation of any Environmental Laws; and (c) advise the other party of any enforcement, cleanup, removal or other governmental or regulatory actions instituted, completed or threatened with respect to the Premises.

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Section 13.02 Remediation.

Landlord shall remediate all Environmental Conditions on the Premises that are existing on the Commencement Date or are otherwise caused or exacerbated at any time by Landlord or its Permittees at, under or on, or migrating to or from the Premises or Landlord's Property, whether in soils or groundwater to the extent they materially and adversely affect Tenant's use or enjoyment of the Premises or rights granted under this Lease. Landlord's remediation shall be in accordance with applicable cleanup standards, to below applicable action levels, including, without limitation, the federal Environmental Protection Agency's and the Oregon Department of Environmental Quality's regulations and guidance documents and all Legal Requirements ("Remediation"). The Remediation activities include, but are not limited to, the design, installation and operation of the processes and systems to remediate all the Environmental Conditions and prevent the on-site and off-site spread or presence of related contaminants, provided that this does not result in or require the imposition of any deed restrictions or other institutional controls on the Premises that would be inconsistent with Tenant's use thereof.

Tenant shall remediate any Environmental Condition on the Premises after the Commencement Date to the extent caused or exacerbated by Tenant or its Permittees.

If Landlord, for any reason, requests a meeting with any Governmental Authority regarding the Premises or the performance of the Remediation described above, Landlord shall provide Tenant with reasonable advance notice of any such requested meeting, so that Tenant may attend. Upon completion of the activities, Landlord shall, at its expense: (a) restore all disturbed areas of the Premises to a condition as close as reasonably possible as existed before the Remediation activities except for the Hazardous Substances so remediated; and (b) remove from the Premises all equipment or other personal property of Landlord and any third party associated with the Remediation. Landlord shall not cause or permit Landlord's Remediation activities on the Premises to be performed in a manner that interferes with the use or enjoyment of the Premises by Tenant, shall make every effort to minimize inconvenience to Tenant and shall work closely with Tenant to address any concerns that Tenant has about the Remediation activities. Landlord shall also not cause or permit the Remediation activities to be performed in a manner that would cause or exacerbate any contamination of the Premises.

Section 13.03 Tenant's Environmental Indemnity. Tenant shall indemnify, defend, and hold harmless the Landlord, and all its agents, directors, officers and employees, from and against all liabilities, costs and expenses, including reasonable consultants' and attorneys' fees and expenses, to the extent related to the violation of any Environmental Laws or resulting from any Environmental Condition on the Premises, that is caused by Tenant's actions during the Lease term to the extent of Tenant's responsibility for causing the condition. Tenant's duty to indemnify and hold harmless Landlord shall not extend to Landlord's claims for loss of profit, revenue or business reputation, or for loss of use of the Premises or diminution in value of the Premises.

Section 13.04 Landlord's Environmental Indemnity. Landlord will indemnify, defend, and hold harmless the Tenant and all its agents, directors, officers and employees, from and against all liabilities, costs and expenses, including reasonable consultants' and attorneys' fees and expenses, related to any Environmental Condition on the Premises that results from

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Landlord's actions or that existed at the Premises before the Commencement Date. Landlord's duty to indemnify Tenant shall not extend to Tenant's claims for loss of profit, revenue or business reputation, or diminution in value of the Premises or the Lease, or to a claim for excess costs incurred by the Tenant to construct leasehold improvements on the Premises as a consequence of the Environmental Condition.

ARTICLE XIV
Cross Easements

Section 14.01 Grant of Easements. Landlord and Tenant hereby grant, each to the other, the following easements:

(a) Pedestrian, vehicular, rail and access easements over the Plant Property to and from each and every street and alley designed for public use or railtrack which now or may hereafter abut or be located upon any portion of the Plant Property; and

(b) For reasonable pedestrian and vehicular ingress and egress to, from and over the rail spur and Landlord's Property and the Premises and for periodic use of the rail spur, and

(c) For the use, inspection, operation, repair, replacement, improvement and alteration of the existing utility lines, pipes, wires, conduits and facilities currently located in, on or under the Plant Property and serving Landlord's Property or the Premises, as applicable, together with reasonable access thereto for such purposes.

Section 14.02 Unimpeded Access. Landlord and Tenant agree that no barricade or other divider will be constructed between the Premises, the Landlord's Property and any public street or alley, and that neither Landlord nor Tenant will unreasonably interfere with the free and uninterrupted flow of pedestrian, rail or vehicular traffic of the other party or its Permittees through the Plant Property in the areas currently used for such purposes; subject to reasonable rules and regulation related to worker health and safety and subject to reasonable maintenance and repair activities on such areas.

Section 14.03 Use of Easements. The use of all easements created in this Lease will, in each instance, be non-exclusive and shall exist for the use and benefit of the Landlord and Tenant and their respective Permittees with respect to their respective properties.

Section 14.04 Maintenance of Easement Areas. Except to the extent that such areas might be operated and maintained by public authorities or utility providers, and subject to the further terms and conditions set forth herein, each party will operate and maintain all of the areas of its respective property that is subject to the easements granted herein in sound structural and operating condition substantially as the properties are maintained as of the Lease's Commencement Date, at each party's respective sole cost and expense; provided that each party shall be solely responsible for, and shall promptly repair at its expense, any damage beyond normal wear and tear caused to such areas by such party's (or its Permittee's) negligence or abnormal use.

Section 14.05 Duration. Each of the easements created herein for the benefit of Tenant and its Permittees shall continue for the Term of the Lease and any extension thereof.

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ARTICLE XV
General Provisions

Section 15.01 Time of Essence/Due Date. Time is of the essence of this Lease, and of each provision hereof. If the due date by which any amount payable by one party to the other party under this Lease is not specifically stated herein, the amount shall be due and payable within thirty (30) days following written request therefor by the party to which such amount is owed or, if necessary, the rendering by the requesting party to the other party of the written statement therefor. Amounts past due from one party to the other under this Lease, beyond the period (including any notice and grace period) provided herein, shall bear interest at the Default Rate from the due date until paid.

Section 15.02 Quiet Enjoyment/Subordination/Non-Disturbance. Landlord warrants that Landlord is seized of the Premises in fee simple and has full right and authority to make this Lease, that there is no lien or encumbrance on the Premises that is superior to Tenant's rights under this Lease and that Tenant shall have peaceful and quiet use and possession of the Premises and of Tenant's rights under this Lease during the Term (and, if exercised, the Option Term). Tenant's rights under this Lease shall be subordinate to the operation and effect of any mortgage, deed of trust or other security instrument hereafter placed upon the Premises, or any part thereof, by Landlord, and Tenant will, upon Landlord's request, execute and deliver such instrument as may be appropriate to effect such subordination; provided that Tenant's agreement to subordinate its interest in this Lease to any mortgage, deed of trust, encumbrance or other security instrument is expressly conditioned upon Tenant's continued right to quiet enjoyment of the Premises and to the exercise of the other rights granted Tenant under this Lease without disturbance, interference or reduction and further provided that Tenant first receives a recordable, written agreement to that effect from each such party to whom subordination is sought.

Section 15.03 Unavoidable Delay - Force Majeure. If either party is delayed or prevented from performing any act required by this Lease because of acts of God, strikes, lockouts, labor troubles, inability to procure materials, restrictive governmental laws, or regulations, or other cause, without fault and beyond the reasonable control of the party obligated (financial inability excluded), the party will not be considered in default of this Lease for the shorter of (A) the period required for such performance or (B) the period of the delay; provided, however, nothing in this section excuses either party from the prompt payment of any amount owed the other party under this Lease except to the extent the force majeure condition affects the federal wire system itself and prevents the timely transfer of funds by wire as required by this Lease. The party whose performance is delayed by a force majeure event ("**affected party**") shall provide prompt written notice to the other party of the force majeure event and shall describe the nature of the event and provide an estimate the duration of the event. The affected party shall use all commercially reasonable efforts diligently to resolve the force majeure event upon learning of the event and shall provide written notice to the other party as soon as possible after the force majeure event is resolved. This provision shall not operate to excuse any party from continuing performance of its obligations under this Lease to the extent not so hindered, delayed or prevented.

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Section 15.04 Successors in Interest. Each and all of the covenants, conditions and restrictions in this Lease inures to the benefit of and is binding on Landlord's successors and assigns, and, subject to the restrictions of Article IX, the authorized encumbrances, assignees, transferees, subtenants, licensees and other successors in interest of Tenant.

Section 15.05 Entire Agreement. This Lease contains the entire agreement of the parties on matters covered by this Lease, and no other agreement, statement or promise made by either party or its agent that is not contained in this Lease is binding or valid. No alteration, amendments or changes to the terms of this Lease will be binding unless in writing and signed by both parties.

Section 15.06 Partial Invalidity. If any term, covenant, condition or provision of this Lease is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

Section 15.07 Captions. Captions of the articles, sections and paragraphs of this Lease are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Lease.

Section 15.08 Notices. All notices, requests, and other communications hereunder shall be in writing and are given when delivered or 3 calendar days after being sent by U.S. Mail, first class postage prepaid, certified, return receipt requested, overnight delivery, facsimile transmission, or personal delivery, addressed as follows:

If to Landlord:	Ash Grove Cement Company 11011 Cody Overland Park, Kansas 66210 Attention: General Counsel Fax: 913-451-8324 Telephone: 913-451-8900
If to Tenant:	Graymont Western US Inc., 3950 South 700 East, Suite 301 Salt Lake City, Utah 84107 Attention: Terry Tait, Vice President Sales Fax: 801-264-8039 Telephone: 801-264-6869

Each party may designate a different address by notice given in conformity with this paragraph.

Section 15.09 Right of Entry. Provided Landlord cooperates with Tenant and conducts and schedules work to avoid unreasonable interference with or interruption of Tenant's use and enjoyment of the Premises, Landlord may enter the Premises at all reasonable times, upon reasonable prior notice to and in coordination with Tenant, to examine the Premises and to show them to inspectors, and, subject to the Tenant's first refusal right in Article XII, above, prospective purchasers.

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Section 15.10 Authority. Each individual executing this Lease on behalf of Tenant represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of Tenant and that this Lease is binding upon Tenant in accordance with its terms. Each individual executing this Lease on behalf of Landlord represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of Landlord and that this Lease is binding upon Landlord in accordance with its terms.

Section 15.11 Governing Law. The provisions of this Lease, and the rights and obligations of Landlord and Tenant thereunder, shall be governed by the laws of the State of Oregon and interpreted and construed in accordance with such laws without regard to principles of conflicts of law.

Section 15.12 Attorneys' Fees. Except as expressly provided in and subject to Exhibit D and Section 15.17, below, in the event of breach of this Agreement by either Landlord or Tenant, the prevailing party shall be entitled to recover its reasonable costs and expenses, including reasonable attorneys' fees and other costs of litigation at and/or in preparation for trial, hearing or appeal of such suit or action, or on any petition for review or other proceedings (including, without limitation, any arbitration or any bankruptcy case or proceedings), in addition to all other sums provided by law.

Section 15.13 Joinder in Instruments/Applications. Upon reasonable request from Tenant from time to time, Landlord shall reasonably cooperate and join with Tenant in any conveyance, dedication, grant of easement or license or other instrument as shall be reasonably necessary or convenient to provide utility service or access to or from the Premises consistent with this Lease and any application or request necessary to or deemed desirable by Tenant in order to allow the use of the Premises by Tenant as contemplated by this Lease.

Section 15.14 Condemnation. If the entire Premises is condemned by any Governmental Authority with authority to do so, this Lease shall terminate as of the date the Governmental Authority takes possession. In addition to the other rights granted Tenant in the Lease, in the case of any condemnation by any Governmental Authority of all or any of the Premises or related common areas or facilities, easements or appurtenances, or any access thereto such that the remainder is not reasonably suitable for the continued efficient and economic use of the Premises by Tenant, Tenant shall have the option to terminate the Lease upon written notice to the Landlord effective upon the date possession is taken by the condemning authority. If any such termination occurs, all Rent, Additional Rent, or other amounts paid in advance of such date attributable to any period following such date shall be refunded to Tenant. If this Lease shall not be so terminated, Landlord promptly and diligently shall make all necessary repairs to the Premises, Identified Assets and any common areas affected by such taking to render and restore the same to complete architectural and functional units as comparable as reasonably possible in utility to Tenant as such existed before such taking and Tenant shall continue in possession of the portion of the Premises not taken under the power of eminent domain, under the same terms and conditions as herein provided, except that the Rent and Additional Rent reserved and other amounts payable by Tenant under this Lease herein shall be reduced in direct proportion to the amount of the Premises so taken (or, if greater, the loss in fair market rental value of the remainder of the Premises then available for continuing use by Tenant for the Permitted Use under this Lease) and, also, during any period of interference with

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Tenant's use and enjoyment of such areas or rights during any repair, reconstruction or refurbishment related to such taking. For the purposes of this paragraph the taking shall include a transfer in lieu of or in contemplation of such taking. All damages awarded for such taking shall be Landlord's property, whether the damages are awarded as compensation for diminution in value of the leasehold or for the fee of the Premises, provided, however, Landlord shall not be entitled to any portion of the award made to Tenant for the taking or removal and reinstallation of Tenant's FFE, loss of business, moving expenses, and an amount equal to that proportion of the Tenant's cost of Tenant's improvements to the Premises which remain unamortized on a straight-line basis for the then remainder of the Lease term as it may have been extended, and Tenant shall be entitled to all award for the Hydrator Equipment.

Section 15.15 Casualty Loss. If the Premises or any substantial component or system thereof is damaged or destroyed during the Lease term, Landlord shall promptly, but in no event later than 30 days after the date of such casualty, give notice to Tenant whether Landlord will rebuild and, if so, giving a time certain for completion of such work in said notice. Except as otherwise expressly provided in this Lease or such a notice, Landlord shall not be obligated to repair or restore any such damage. If Landlord elects not to rebuild, or if Landlord does not give its notice of election to rebuild within the 30-day period, or if the proposed period for rebuilding is equal to or greater than one-tenth ($1/10^{th}$) of the then remaining Term (or, if exercised, the then remaining Option Term), or if Landlord fails to substantially complete such rebuilding and return exclusive possession thereof to Tenant within the period designated in Landlord's notice to Tenant, Tenant may elect to terminate this Lease by notice to Landlord. If this Lease is not terminated under this Section 15.15, the Rent payable by Tenant under this Lease shall abate as of the date of casualty to the extent the remainder of the Premises is untenantable for the continued economic conduct of Tenant's business thereon throughout the period (including any period during which Landlord or Tenant is performing repair work) until the Premises is restored to substantially its former condition and exclusive possession thereof is restored to Tenant. In the event of termination of this Lease by reason of casualty, Tenant shall be entitled to recover, in addition to Tenant's specific rights, any prepaid amounts attributable to periods following the date of such casualty, including without limitation, prepaid Rent, Additional Rent and other amounts, if any and any recovery by Landlord of insurance proceeds to the extent related to the Hydrator Equipment.

Section 15.16 Landlord Consent. Notwithstanding anything to the contrary in this Lease, where this Lease calls for Landlord's consent, approval or satisfaction or other exercise of discretion, such not unreasonably be withheld, conditioned or delayed.

Section 15.17 Arbitration. In the event a dispute arises between the parties relating to this Lease and the parties fail to resolve the dispute within 20 days as evidenced by a written agreement between the parties to that effect, either party may elect by written notice to the other party to subject such dispute to binding arbitration in accordance with attached **Exhibit D**.

Section 15.18 Survival of Certain Provisions. The obligations of Landlord and Tenant under this Lease shall survive the expiration or earlier termination of this Lease to the extent then accrued.

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ARTICLE XVI
Execution

Section 16.01 Counterparts. This Lease may be signed by the parties in counterparts, each of which is deemed to be an original.

Section 16.02 Memorandum of Lease. Upon execution of this Lease, Landlord will execute and the parties shall record a Memorandum of this Lease, substantially in the form of **Exhibit E**, in the real estate records of Multnomah County, Oregon to give record notice of the Tenant's rights to use and occupy the Premises during the Term pursuant to the provisions hereof, and of its right of first refusal contained herein.

IN WITNESS WHEREOF, the parties have caused this Lease to be executed in duplicate as of the date and year first above written.

ASH GROVE CEMENT COMPANY

By _____
Charles T. Wiedenhoft, President

"LANDLORD"

GRAYMONT WESTERN US INC.

By _____
Wayne Wagner, Executive Vice President

By _____
Garry Kehler, Vice President and General Counsel

"TENANT"

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EXHIBIT A
RIVERGATE LEASED ASSETS

Quicklime sizing, crusher, bulk storage, and loadout facility

One 8'x16' double deck vibratory screen.

One 8' x 16' single deck vibratory screen

Two (2) Pennsylvania impact hammer mills – 10 tph each

Two (2) Sturtevant cone crushers – 15 tph each

Six (6) three hundred s.ton bulk quicklime concrete storage silos.

Auxiliary bulk quicklime storage: 2,500 s.ton steel silo

Bulk Loading facility for truck and rail

Truck and rail scale

1997 5TM Trackmobile

Approximately 2,000 foot of rail (nonexclusive use)

Hydrated lime producing, sizing, milling, bulk storage, and loadout facility

One (1) 12 s.tph Cimprogetti hydrator

One (1) 50" Raymond roller mill.

One (1) 50 s.ton bulk metal silo with loadout, and one (1) 200 s.ton concrete silo with loadout.

Bulk Loading facility for truck and rail

250 gpm water well with 10,000 gallons storage tank (well to be used by both parties)

Quicklime and Hydrated Lime Sacking, Bulk Bagging, and Warehousing Facility

Packaging equipment for 50 lb quicklime bags and supersacks

Packaging equipment for 10, 35, 50 lb. hydrated lime bags and supersacks

Weighing, Palletizing, and packaging equipment

2 Fork lifts

Approximately 12,500 sq. ft. of covered warehouse space.

Three truck trailer and container loadout bays.

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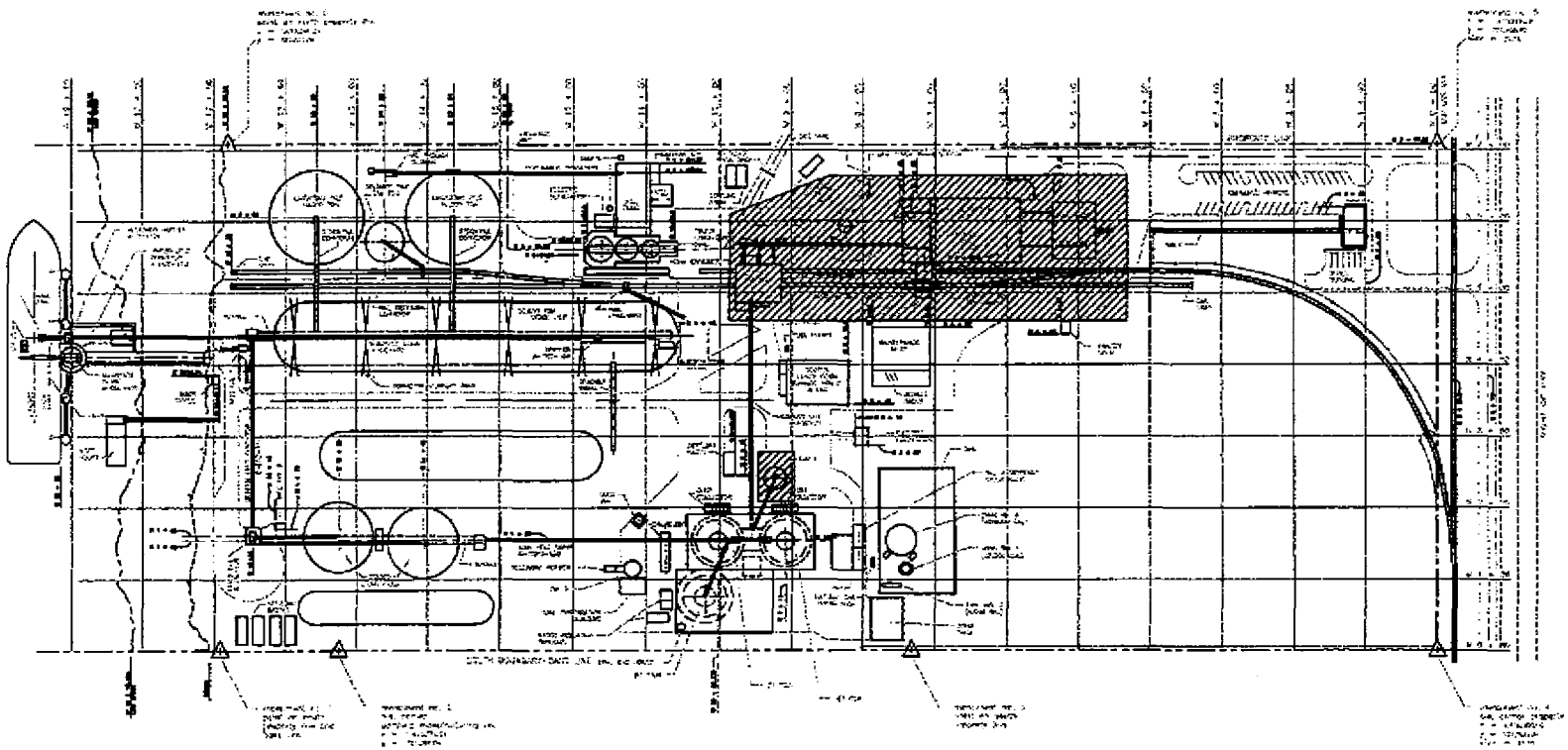
Graymont's Area



ASH GROVE CEMENT CO.

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EXHIBIT B-2

TO

GRAYMONT/AGCC LIME FACILITY LEASE

(Plant Property Legal Description)

Beginning at a point in Government Lot 6, Section 27, Township 2 North, Range 1 West, Willamette Meridian, which point is the Northeast corner of that certain tract of land conveyed by S. I. Ogden and Ella Ogden, his wife, to T. A. Ketchum and F. C. Knapp, by deed recorded September 30, 1908, in book 435, page 125 deed records of Multnomah County, which point is marked by a 3 inch steel pipe and brass cap; thence continuing due East 322.59 feet to the line between sections 26 and 27, of said township, from which point the corner between sections 26, 27, 34 and 35 bears South 0° 06' 16" West 543.00 feet and the 1/4 corner between sections 26 and 27 bears North 0° 06' 16" East 2082.54 feet; continuing thence due East 1203.86 feet to a 3 inch steel pipe and brass cap from which point the South 1/4 corner of Section 26 bears South 69° 25' 18" East 1559.62 feet and the center of section 26 bears North 35° 08' 23" East 2545.24 feet; continuing thence due North 707.92 feet to a 3 inch steel pipe and brass cap; thence due West 1202.05 feet to the line between sections 26 and 27 from which point the West 1/4 corner of section 26 bears North 0° 06' 16" East 1374.54 feet; thence continuing due West 478.07 feet to a 3 inch steel pipe and brass cap; thence due West 190 feet more or less to the ordinary low water line of the Willamette River; thence Southerly along the low water line 710 feet more or less to a point due West of the point of beginning; thence due East 124 feet more or less to a 3 inch steel pipe and brass cap; thence continuing due East 165.72 feet to the point of beginning.

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EXHIBIT D

TO

GRAYMONT/AGCC LIME FACILITY LEASE

Arbitration Provisions

A. Claim or Controversy to Be Decided by Arbitration. Pursuant to section 15.17, above, an unresolved dispute between the parties will be settled by binding arbitration in accordance with the American Arbitration Association's (AAA) expedited Commercial Arbitration Rules, as modified by this Exhibit D, or such other rules as the parties may agree upon in writing.

B. Arbitration Procedure. The arbitrator shall be an Oregon-licensed attorney, in good standing with at least 15 years' experience in commercial transactions who has offices within 50 miles of Portland, Oregon, who is selected by the parties within 10 business days after the notice instituting arbitration is given. If the parties cannot agree within the 10 day period, then one arbitrator from the list of arbitrators maintained by the AAA's Portland office shall be appointed by the AAA. The arbitration shall be conducted in Portland, Oregon. The parties shall not be entitled to discovery or dispositive motion practice, except that the arbitrator shall authorize any discovery that is shown to be necessary to ensure a fair hearing. The arbitrator shall not be bound by the rules of evidence or of civil procedure, but rather may consider any writings, oral presentations or other evidence that reasonable business people would use in the conduct of their day-to-day affairs, and may require the parties to submit some or all of their case(s) by written declaration or other manner of presentation as the arbitrator may determine. Live testimony and cross-examination shall be limited but sufficient to ensure a fair hearing on material issues. The arbitrator shall be instructed to render its final written decision containing a brief statement of the claim(s), the determination and the award made on each claim within 10 days after the hearing. The arbitrator shall not award punitive or exemplary damages. In making the decision, the arbitrator shall apply applicable substantive law of the state of Oregon, without giving effect to its conflicts of laws provisions.

C. Prevailing Party Costs. The party prevailing on a claim shall be entitled to recover its actual and reasonable attorneys' fees, consultants' fees, legal costs and expert witness fees required to pursue or defend the arbitration of such claim (**"Dispute Resolution Costs"**). The arbitrator's decision is binding and, absent fraud, collusion or willful misconduct by the arbitrator, may be entered as a final judgment in any court having jurisdiction over the parties. The party entering a judgment shall also be reimbursed all of its legal fees and costs, including attorneys' fees reasonably incurred to collect on or enforce said judgment. Either party may join in the arbitration proceeding any other entity with whom it has contracted that may be liable for damages or performance claimed by the other party in the arbitration. The arbitrator shall determine whether a claim is covered by this arbitration agreement. All statutes of limitation which would otherwise be applicable shall apply to any arbitration proceedings hereunder.

D. Confidentiality of Arbitration. The parties agree that the arbitration, including all evidence, pleadings, statements of claim, statements of defense, settlement offers and any and all other materials submitted or made available to the arbitrator are confidential and will not be disclosed to any person other than to the participants in the arbitration or as may be required by law.

AGC0011828

EXHIBIT E

TO

GRAYMONT/AGCC LIME FACILITY LEASE

FORM OF MEMORANDUM OF LEASE

RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO:

Eugene A. Frassetto
Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MEMORANDUM OF LEASE
and
Right of First Refusal

DATED: _____, 2006

This MEMORANDUM OF LEASE and Right of First Refusal ("**Memorandum**") is made by ASH GROVE CEMENT COMPANY, a Delaware corporation ("**Landlord**") whose address is 11011 Cody, Overland Park, Kansas 66210 as of the day and year set forth above.

WHEREAS, Landlord and GRAYMONT WESTERN US INC., a Utah corporation ("**Tenant**"), whose address is 3950 South 700 East, Suite 301, Salt Lake City, Utah, 84107 entered into that certain Lease Agreement dated May 15, 2006 (the "**Lease**"), relating to certain leased land (the "**Premises**") shown within the blue crosshatching on the diagram attached as Exhibit A hereto, situated in the City of Portland, Multnomah County, Oregon, which grants Tenant, among other things, (a) a first refusal right regarding Landlord's larger property of which the Premises is a part, which larger premises are described in Exhibit B hereto, also situated in the City of Portland, Multnomah County, Oregon (the "**Plant Property**"), and the right to remove certain Hydrator Equipment as provided in the Lease; and

WHEREAS, Landlord and Tenant now wish to memorialize of record the existence of the Lease and Refusal Right.

NOW, THEREFORE, in consideration of the Lease and other good and valuable consideration, Landlord hereby declares and confirms as follows:

AGC0011829

1. Landlord and Tenant are parties to the Lease to lease the Premises, upon the terms and conditions more particularly set forth in the Lease.

2. The initial term of the Lease commences on June 1, 2006 and shall expire on December 31, 2011, subject to extension or earlier termination as provided in the Lease.

3. The Lease grants Tenant (a) the right of first refusal to purchase or lease the Plant Property or any part thereof or interest therein, and (b) the right to remove certain Hydrator Equipment of Landlord, all as more particularly described in the Lease.

4. Reference is made to the Lease for a full statement of the terms and conditions of the Lease, all of which are hereby incorporated by reference.

5. Nothing in this Memorandum of Lease and Right of First Refusal shall be construed to amend, modify, change, alter, amplify, limit, interpret or supersede any of the terms and provisions of the Lease, which shall in all things control.

IN WITNESS WHEREOF, Landlord has caused this Memorandum of Lease and Right of First Refusal to be executed as of the day and year first above written.

ASH GROVE CEMENT COMPANY

By: _____

Charles T. Wiedenhoft, President

"LANDLORD

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2006, by Charles T. Wiedenhoft, as President of ASH GROVE CEMENT COMPANY, a Delaware corporation, on behalf of the corporation.

_____
Notary Public for _____

My Commission Expires: _____

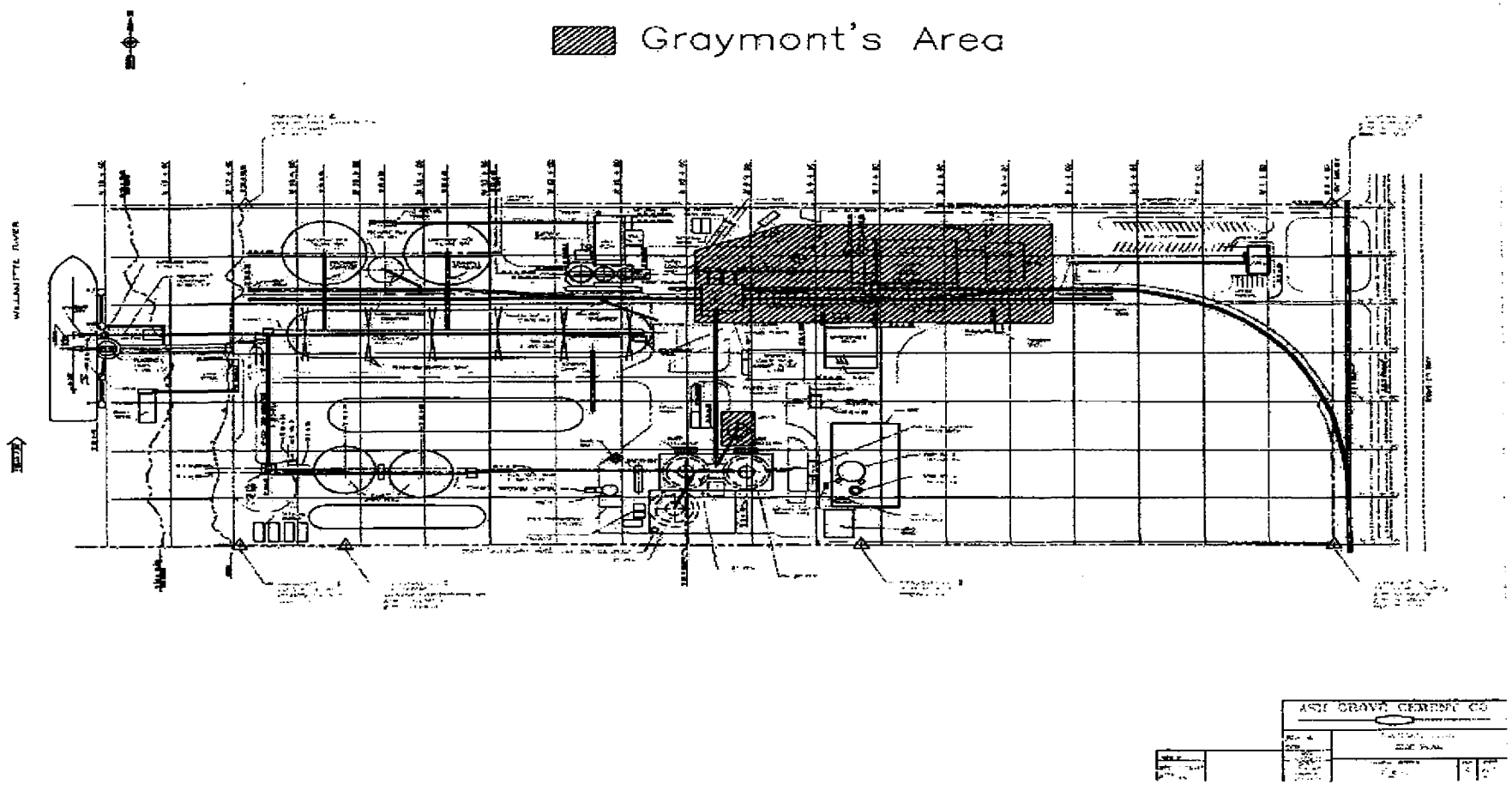
EXHIBIT A

TO

MEMORANDUM OF LEASE and RIGHT OF FIRST REFUSAL

Description of Premises

The real property in the City of Portland, Multnomah County, Oregon, more particularly described as follows:



Portland1-2224965.18 0040189-00001

AGC0011831

EXHIBIT B

TO

MEMORANDUM OF LEASE and RIGHT OF FIRST REFUSAL

Description of Plant Property

The real property in the City of Portland, Multnomah County, Oregon, more particularly described as follows:

Beginning at a point in Government Lot 6, Section 27, Township 2 North, Range 1 West, Willamette Meridian, which point is the Northeast corner of that certain tract of land conveyed by S. I. Ogden and Ella Ogden, his wife, to T. A. Ketchum and F. C. Knapp, by deed recorded September 30, 1908, in book 435, page 125 deed records of Multnomah County, which point is marked by a 3 inch steel pipe and brass cap; thence continuing due East 322.59 feet to the line between sections 26 and 27, of said township, from which point the corner between sections 26, 27, 34 and 35 bears South 0° 06' 16" West 543.00 feet and the 1/4 corner between sections 26 and 27 bears North 0° 06' 16" East 2082.54 feet; continuing thence due East 1203.86 feet to a 3 inch steel pipe and brass cap from which point the South 1/4 corner of Section 26 bears South 69° 25' 18" East 1559.62 feet and the center of section 26 bears North 35° 08' 23" East 2545.24 feet; continuing thence due North 707.92 feet to a 3 inch steel pipe and brass cap; thence due West 1202.05 feet to the line between sections 26 and 27 from which point the West 1/4 corner of section 26 bears North 0° 06' 16" East 1374.54 feet; thence continuing due West 478.07 feet to a 3 inch steel pipe and brass cap; thence due West 190 feet more or less to the ordinary low water line of the Willamette River; thence Southerly along the low water line 710 feet more or less to a point due West of the point of beginning; thence due East 124 feet more or less to a 3 inch steel pipe and brass cap; thence continuing due East 165.72 feet to the point of beginning.

AGC0011832

LEASE AMENDMENT AGREEMENT

This Lease Amendment Agreement ("Amendment) is made by Ash Grove Cement Company, a Delaware corporation ("Landlord"), and Graymont Western US Inc., a Utah corporation ("Tenant").

RECITALS

A. Landlord and Tenant are parties to a lease agreement dated May 15, 2006 (the "Lease");

B. Landlord continues to produce crushed stone, milled limestone and agricultural lime products at its plant that is the subject of the Lease;

C. Tenant produces chemical lime products and wishes to continue to use Landlord's product handling, hydrating, and storage facilities to enhance its ability to deliver lime products to Tenant's customers;

D. Landlord and Tenant wish to extend the Lease and to incorporate the amendments below.

E. Capitalized terms, not otherwise defined in this Amendment, shall have the meanings given in the original Lease.

AGREEMENT

In consideration of the premises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby amend the Lease as follows effective as of 12:00 a.m. on January 1, 2010:

1. Lease Term. The initial term of the Lease is hereby extended through December 31, 2014 (the "Term"). Landlord grants Tenant the option to extend the Term of the Lease once for 1 term of 3 years through December 31, 2017, subject to the remaining terms and conditions of the Lease, as amended. Tenant shall exercise the option to extend the Lease by giving Landlord written notice of the election at least 180 days before the end of the initial Term. Tenant may not exercise the option to extend at any time Tenant is in default of the Lease beyond any notice of default from Landlord and any cure period as provided in the Lease.

AGC0011833

2. Annual Rent. Beginning January 1, 2010, annual rent under Section 2.02 of the Lease is **Redacted**, to be paid monthly, at **Redacted** per month. If Tenant has prepaid or overpaid monthly rent based on the monthly rental under the Lease before this Amendment, then the amount of the prepayment or overpayment will be credited against monthly rent coming due in 2010 hereunder, until the full credit has been applied to Tenant's rent obligation. The remaining terms of payment in Article II of the Lease remain unchanged.

3. Leased Premises. The original Premises are shown on the attached Exhibit A-1. The Premises are hereby increased to add the areas shown in horizontal crosshatching on Exhibit A-1. The area shown on Exhibit A-1 in vertical crosshatching and including Bin 9 and belt 144 (the "Belt") up to the point the Belt enters the lime storage area (a total of 3,476 square feet) is relinquished and released from the Premises and returned to Landlord's Property. Landlord shall cause the Belt control panel and drive mechanism to be deactivated or otherwise rendered secure from activation so that the Belt mechanism may not be activated except upon prior written agreement of the parties so as to avoid injury or death to persons and damage to property that could result from activation of the Belt. Neither party may activate the Belt drive or otherwise run the Belt mechanism without the prior written consent of the other. The resultant Premises after the adjustments effected above are shown in crosshatch on attached Exhibit A-2. With respect to rights and obligations accruing from and after the Effective Date of this Amendment, all references in the Lease to the Premises shall refer to the resultant Premises. To the extent such relates to the areas added to the Premises in this Section 3, above, the "Commencement Date" as used in the Lease is the Effective Date of this Amendment. Landlord has informed Tenant that Landlord is required to construct a new road on Landlord's property, and Tenant acknowledges and accepts that portions of Landlord's new road will touch on portions of the resultant Premises as indicated below, which is acceptable to Tenant. The portions of the road to be constructed and that will touch on the Premises are shown in horizontal crosshatching that overlaps the original Premises, as now shown on Exhibit A-3. The Parties anticipate that the construction of the new road and the resulting traffic flow may require modifications to Tenant's Premises. If any such modification appears necessary, the parties shall confer and agree upon the modifications required. Upon approval by the parties of the estimated cost, scope of work and schedule of such modification work Tenant (unless the parties agree that Landlord shall proceed with the approved work) shall perform such work. All such work (by either party) shall be at Landlord's expense and according to the scope of work and schedule so agreed upon, subject to force majeure events that delay such work. The parties shall cooperate and coordinate so that all such work is accomplished promptly and with due diligence in a manner that avoids

unnecessary interference with Tenant's use of the Premises. If Tenant performs such work, at Tenant's election, (i) Landlord shall pay and reimburse to Tenant Tenant's actual costs of such work on demand, or (2) Tenant may set off such amounts against amounts due or coming due to Landlord under the Lease.

4. Tenant's Sublease. Under Section 9.01 of the Lease, Landlord consents to Tenant's planned sublease of the area inside the enclosed oil storage facility as shown on Exhibit B in crosshatching to Gilmour & Company ("Gilmour") for use by Gilmour for the production and sale of slurried lime. Tenant shall provide Landlord with a form of Tenant's sublease agreement with Gilmour for approval before the sublease is executed by Gilmour. The term of the sublease may not be longer than the term of the Lease as amended herein (December 31, 2014), but Tenant may extend a renewal right to sublessee through not later than the end of the extended Term that is conditioned on Tenant exercising the option to extend the Term. If Tenant does not extend the Term, then sublessee may not extend the sublease term beyond the end of the Term. Tenant shall be fully responsible for all of the Premises as constituted pursuant to this Amendment, including the subleased premises, consistent with all the terms and conditions of the Lease as amended herein. Tenant's sublease shall require sublessee to operate in compliance with all applicable laws and regulations and all environmental requirements in the Lease, as amended.

5. Memorandum of Lease. Landlord agrees to execute and deliver a Memorandum of Lease attached hereto as Exhibit C and by this reference made a part hereof, for the purpose of recording, to be effective upon the execution of this Amendment.

If there is any inconsistency or ambiguity between the terms of this Amendment and the other terms of the Lease, the terms of this Amendment shall prevail. This Amendment may be signed in two or more counterparts, all of which will be an original, and all taken together will constitute one original document. Telecopy signatures shall be binding as originals.

Except as amended herein, the terms and conditions of the Lease remain in effect as set forth in the May 15, 2006 Lease and are otherwise unchanged.

NO MORE TEXT THIS PAGE – SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereby execute this Lease Amendment Agreement effective as of January 1, 2010.

ASH GROVE CEMENT COMPANY

By: _____
Michael J. Hrizuk,
Vice President, Manufacturing

"LANDLORD"

GRAYMONT WESTERN US INC.

By: _____
Garry Kehler,
Vice President and General Counsel

By: _____
Gerald Van-Campen,
Vice President, Sales

"TENANT"

AGC0011836

IN WITNESS WHEREOF, the parties hereby execute this Lease Amendment Agreement effective as of January 1, 2010.

ASH GROVE CEMENT COMPANY

By:_____
Michael J. Hrizuk,
Vice President, Manufacturing

"LANDLORD"

GRAYMONT WESTERN US INC.

By:_____
Wayne Wagner,
Executive Vice President Sales

By:_____
Gerald Van-Campen,
Vice President, Sales

"TENANT"

AGC0011837

IN WITNESS WHEREOF, the parties hereby execute this Lease Amendment Agreement effective as of January 1, 2010.

ASH GROVE CEMENT COMPANY

By:_____
Michael J. Hrizuk,
Vice President, Manufacturing

"LANDLORD"

GRAYMONT WESTERN US INC.

By:_____
Wayne Wagner,
Executive Vice President Sales

By:_____
Gerald Van-Campen,
Vice President, Sales

"TENANT"

EXHIBIT C
TO
LEASE AMENDMENT AGREEMENT

Memorandum of Amendment to Lease

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Eugene A. Frassetto, Esq.
Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MEMORANDUM OF AMENDMENT TO LEASE

This MEMORANDUM OF AMENDMENT TO LEASE ("**Memorandum**") is made by ASH GROVE CEMENT COMPANY, a Delaware corporation ("**Landlord**") whose address is 11011 Cody, Overland Park, Kansas 66210 and GRAYMONT WESTERN US INC., a Utah corporation ("**Tenant**"), whose address is 3950 South 700 East, Suite 301, Salt Lake City, Utah, 84107 as of the Effective Date described below.

WHEREAS, Landlord and Tenant entered into that certain Lease Agreement dated May 15, 2006 (the "**Lease**"), a memorandum of which was recorded in the Records of Multnomah County, Oregon on May 19, 2006 at Document No. 2006-092975 relating to certain leased land (the "**Original Premises**"), situated in the City of Portland, Multnomah County, Oregon as more particularly described therein.; and

WHEREAS, pursuant to that certain Lease Amendment Agreement (the "**Amendment**") dated effective as of January 1, 2010 (the "**Effective Date**") the parties have amended the Lease to extend the initial Term of the Lease, change the description of the Premises and to make certain other amendments; and

WHEREAS, Landlord and Tenant now wish to memorialize of record the existence of the Lease Amendment.

NOW, THEREFORE, in consideration of the Lease Amendment and other good and valuable consideration, Landlord hereby declares and confirms as follows effective for rights and obligations accruing from and after the Effective Date:

1. The Premises under the Lease is hereby amended to include only those areas shown within the crosshatching on the diagram attached as Exhibit A hereto (the "**Resultant Premises**"). From and after the Effective Date, references in the Lease to the "Premises" mean the Resultant Premises.

2. The initial term of the Lease is extended through December 31, 2014, subject to extension or earlier termination as provided in the Lease, as amended.

3. The Amendment makes certain other amendments to the Lease as provided in the Amendment. Except as specifically amended by the Amendment, the Lease remains in full force and effect.

4. Reference is made to the Lease and the Amendment for a full statement of the terms and conditions of the Lease, all of which are hereby incorporated by reference as amended by the Amendment.

5. Nothing in this Memorandum of Amendment to Lease shall be construed to amend, modify, change, alter, amplify, limit, interpret or supersede any of the terms and provisions of the Lease, as amended by the Amendment, which shall in all things control. This Memorandum may be signed in counterparts, all of which will be an original, and all taken together will constitute one original document.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Memorandum of Amendment to Lease to be executed as of the 1st day of January, 2010.

LANDLORD:	**TENANT**
ASH GROVE CEMENT COMPANY	**GRAYMONT WESTERN US INC.**
By: _____	By: _____
Michael J. Hrizuk,	Wayne Wagner,
Title: Vice President, Manufacturing	Title: Executive Vice President Sales
	By: _____
	Gerald Van Campen
	Title: Vice President, Sales

AGC0011840

1. The Premises under the Lease is hereby amended to include only those areas shown within the crosshatching on the diagram attached as Exhibit A hereto (the "**Resultant Premises**"). From and after the Effective Date, references in the Lease to the "Premises" mean the Resultant Premises.

2. The initial term of the Lease is extended through December 31, 2014, subject to extension or earlier termination as provided in the Lease, as amended.

3. The Amendment makes certain other amendments to the Lease as provided in the Amendment. Except as specifically amended by the Amendment, the Lease remains in full force and effect.

4. Reference is made to the Lease and the Amendment for a full statement of the terms and conditions of the Lease, all of which are hereby incorporated by reference as amended by the Amendment.

5. Nothing in this Memorandum of Amendment to Lease shall be construed to amend, modify, change, alter, amplify, limit, interpret or supersede any of the terms and provisions of the Lease, as amended by the Amendment, which shall in all things control. This Memorandum may be signed in counterparts, all of which will be an original, and all taken together will constitute one original document.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Memorandum of Amendment to Lease to be executed as of the 1st day of January, 2010.

LANDLORD:	**TENANT**
ASH GROVE CEMENT COMPANY	**GRAYMONT WESTERN US INC.**
By: _____	By: _____
Michael J. Hrizuk,	Wayne Wagner,
Title: Vice President, Manufacturing	Title: Executive Vice President Sales
	By: _____
	Gerald Van Campen
	Title: Vice President, Sales

AGC0011841

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by MICHAEL J. HRIZUK, as Vice President, Manufacturing, of ASH GROVE CEMENT COMPANY, a Delaware corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

~~STATE OF~~ PROVINCE OF)
) ss.
~~County of~~ BRITISH COLUMBIA)

This instrument was acknowledged before me on this 11th day of MARCH, 2010, by WAYNE WAGNER, as Executive Vice President Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for BRITISH COLUMBIA.
My Commission Expires: NO FIXED EXPIRY

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by GERALD VAN-CAMPEN, as Vice President, Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by MICHAEL J. HRIZUK, as Vice President, Manufacturing, of ASH GROVE CEMENT COMPANY, a Delaware corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by WAYNE WAGNER, as Executive Vice President Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

STATE OF Utah)
) ss.
County of Salt Lake)

This instrument was acknowledged before me on this 11th day of March, 2010, by GERALD VAN-CAMPEN, as Vice President, Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

Notary Public
KRISTA M. HOOKS
Commission #576188
My Commission Expires
June 10, 2012
State of Utah

Krista M. Hooks
Notary Public for Graymont Western US Inc.
My Commission Expires: June 10 2012

AGC0011843

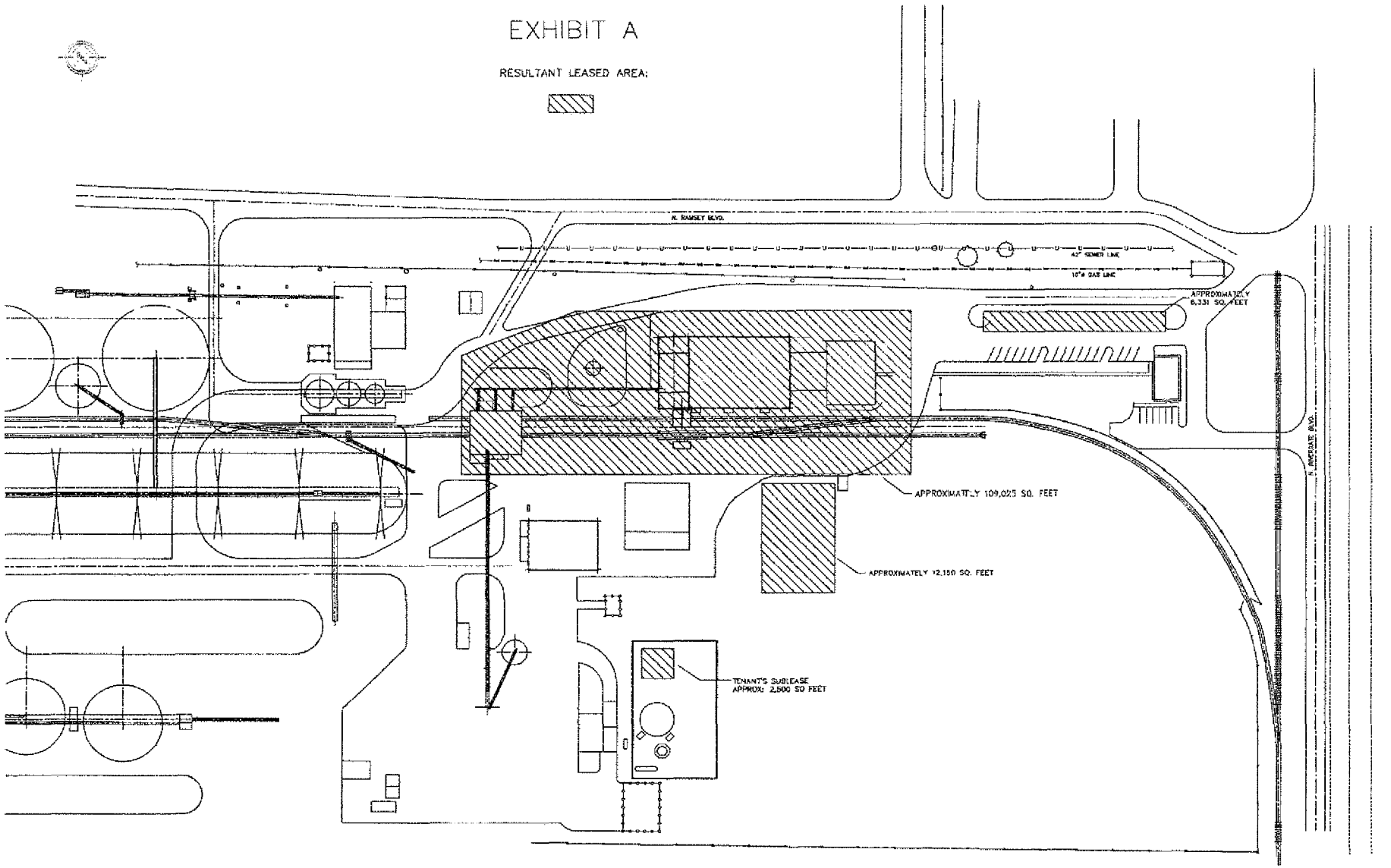
EXHIBIT A
TO
MEMORANDUM OF AMENDMENT TO LEASE

Diagram of Resultant Premises

SEE ATTACHED

EXHIBIT A

RESULTANT LEASED AREA:



AGC0011845

EXHIBIT A-1
TO
LEASE AMENDMENT AGREEMENT

Diagram of Premises

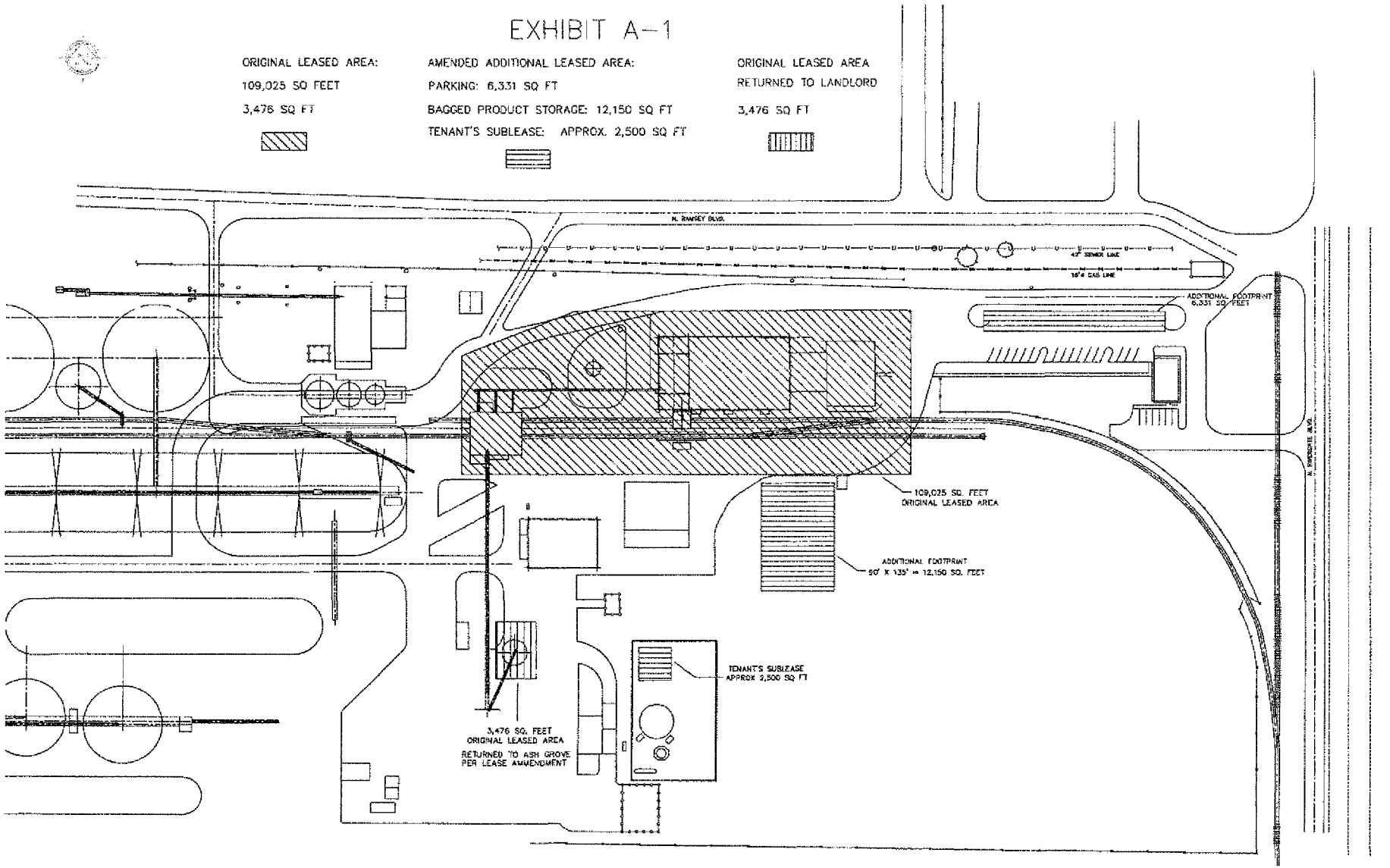
SEE ATTACHED

EXHIBIT A-1

ORIGINAL LEASED AREA:
109,025 SQ FEET
3,476 SQ FT

AMENDED ADDITIONAL LEASED AREA:
PARKING: 6,331 SQ FT
BAGGED PRODUCT STORAGE: 12,150 SQ FT
TENANT'S SUBLEASE: APPROX. 2,500 SQ FT

ORIGINAL LEASED AREA
RETURNED TO LANDLORD
3,476 SQ FT



AGC0011847

EXHIBIT A-2
TO
LEASE AMENDMENT AGREEMENT

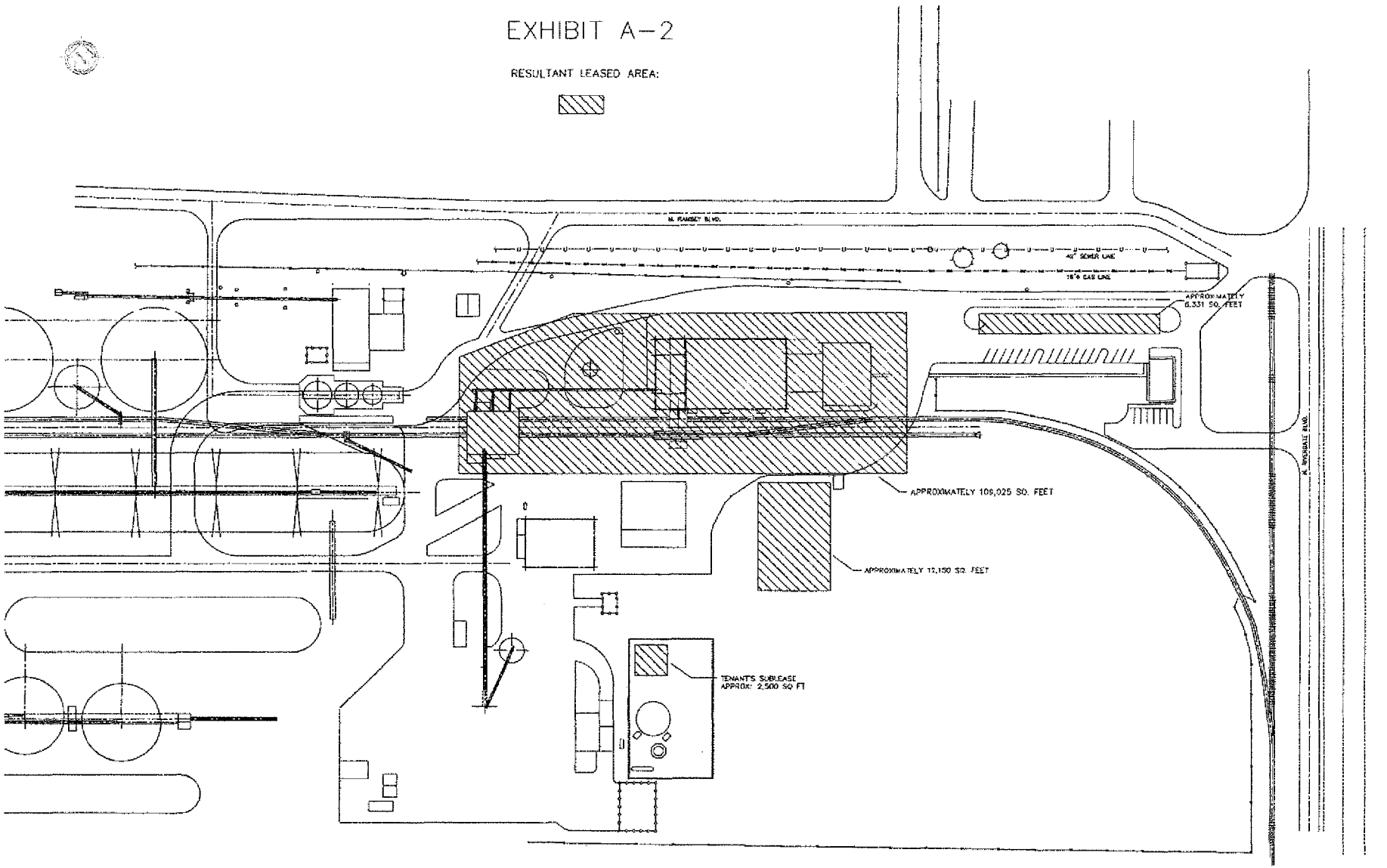
Diagram of Resultant Premises

SEE ATTACHED

AGC0011848

EXHIBIT A-2

RESULTANT LEASED AREA:



AGC0011849

EXHIBIT A-3
TO
LEASE AMENDMENT AGREEMENT

Diagram of Road to be Constructed

SEE ATTACHED

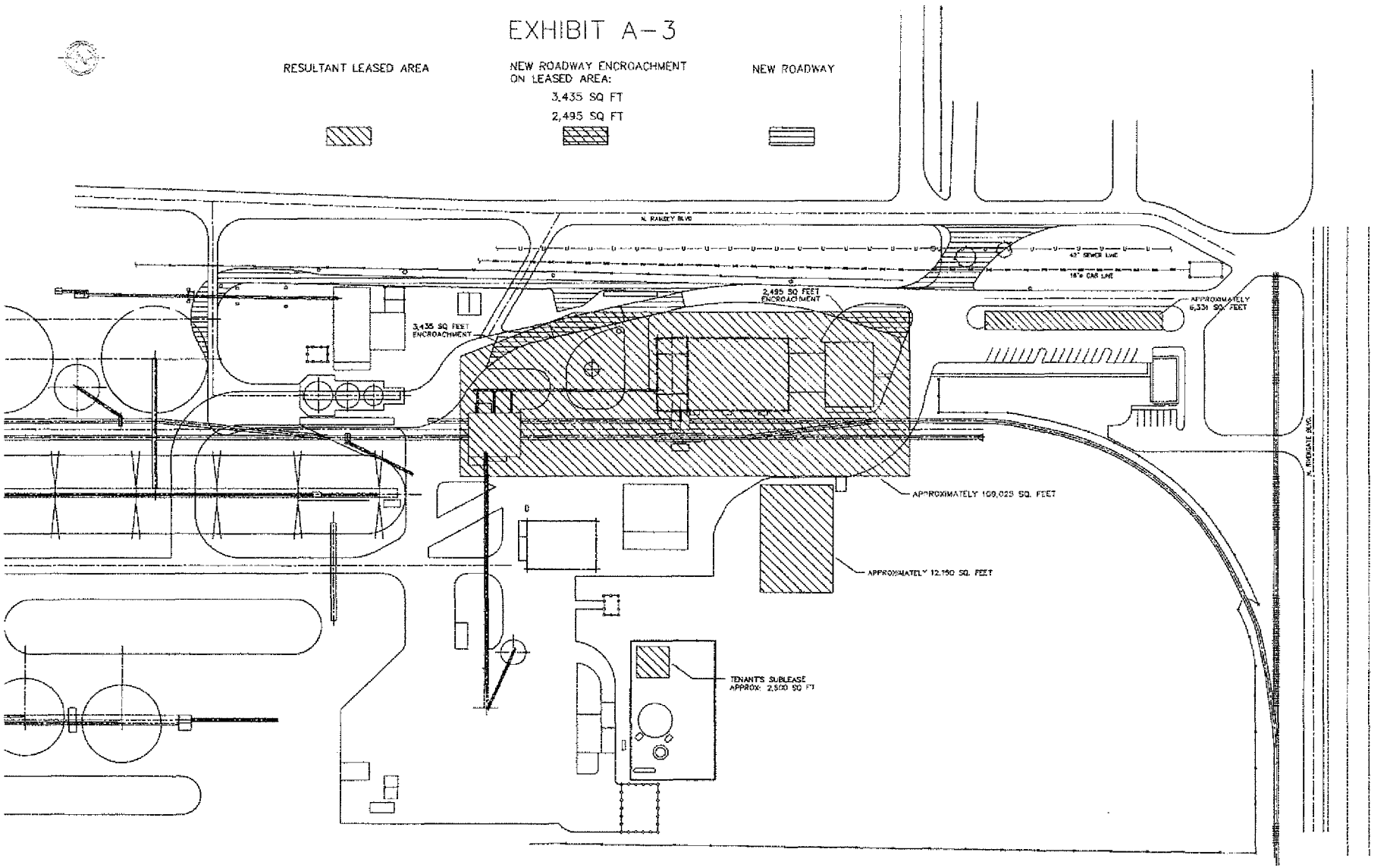
AGC0011850

EXHIBIT A-3

RESULTANT LEASED AREA

NEW ROADWAY ENCROACHMENT ON LEASED AREA:
3,435 SQ FT
2,495 SQ FT

NEW ROADWAY



AGC0011851

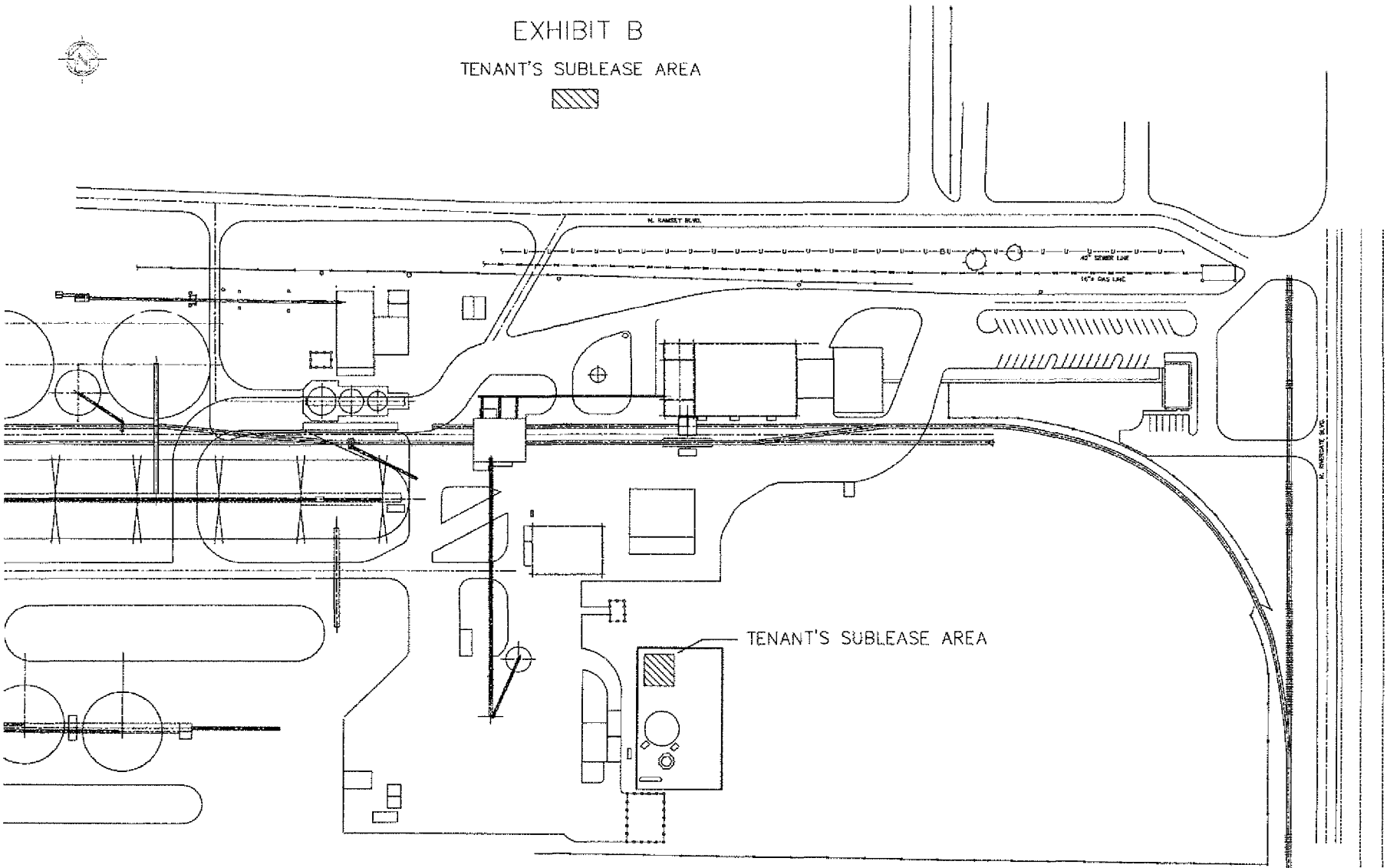
EXHIBIT B
TO
LEASE AMENDMENT AGREEMENT

Diagram of Oil Storage Facility for Sublease

SEE ATTACHED

EXHIBIT B

TENANT'S SUBLEASE AREA



AGC0011853

MEMORANDUM OF AMENDMENT TO LEASE

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

Eugene A. Frassetto, Esq.
Stoel Rives LLP
900 SW Fifth Avenue, Suite 2600
Portland, OR 97204

Multnomah County Official Records
C Swick, Deputy Clerk

2010-038077

00645513201000380770090099

$76.00

03/25/2010 12:08:35 PM

1R-MEMOLEAS Cnt=1 Stn=10 RECCASH1
$45.00 $11.00 $15.00 $5.00

SPACE ABOVE THIS LINE FOR RECORDER'S USE

MEMORANDUM OF AMENDMENT TO LEASE

This MEMORANDUM OF AMENDMENT TO LEASE ("**Memorandum**") is made by ASH GROVE CEMENT COMPANY, a Delaware corporation ("**Landlord**") whose address is 11011 Cody, Overland Park, Kansas 66210 and GRAYMONT WESTERN US INC., a Utah corporation ("**Tenant**"), whose address is 3950 South 700 East, Suite 301, Salt Lake City, Utah, 84107 as of the Effective Date described below.

WHEREAS, Landlord and Tenant entered into that certain Lease Agreement dated May 15, 2006 (the "**Lease**"), a memorandum of which was recorded in the Records of Multnomah County, Oregon on May 19, 2006 at Document No. 2006-092975 relating to certain leased land (the "**Original Premises**"), situated in the City of Portland, Multnomah County, Oregon as more particularly described therein.; and

WHEREAS, pursuant to that certain Lease Amendment Agreement (the "**Amendment**") dated effective as of January 1, 2010 (the "**Effective Date**") the parties have amended the Lease to extend the initial Term of the Lease, change the description of the Premises and to make certain other amendments; and

WHEREAS, Landlord and Tenant now wish to memorialize of record the existence of the Lease Amendment.

NOW, THEREFORE, in consideration of the Lease Amendment and other good and valuable consideration, Landlord hereby declares and confirms as follows effective for rights and obligations accruing from and after the Effective Date:

1. The Premises under the Lease is hereby amended to include only those areas shown within the crosshatching on the diagram attached as Exhibit A hereto (the "**Resultant Premises**"). From and after the Effective Date, references in the Lease to the "Premises" mean the Resultant Premises.

9

1. The Premises under the Lease is hereby amended to include only those areas shown within the crosshatching on the diagram attached as Exhibit A hereto (the "**Resultant Premises**"). From and after the Effective Date, references in the Lease to the "Premises" mean the Resultant Premises.

2. The initial term of the Lease is extended through December 31, 2014, subject to extension or earlier termination as provided in the Lease, as amended.

3. The Amendment makes certain other amendments to the Lease as provided in the Amendment. Except as specifically amended by the Amendment, the Lease remains in full force and effect.

4. Reference is made to the Lease and the Amendment for a full statement of the terms and conditions of the Lease, all of which are hereby incorporated by reference as amended by the Amendment.

5. Nothing in this Memorandum of Amendment to Lease shall be construed to amend, modify, change, alter, amplify, limit, interpret or supersede any of the terms and provisions of the Lease, as amended by the Amendment, which shall in all things control. This Memorandum may be signed in counterparts, all of which will be an original, and all taken together will constitute one original document.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Memorandum of Amendment to Lease to be executed as of the day and year first above written.

LANDLORD:	**TENANT**
ASH GROVE CEMENT COMPANY	**GRAYMONT WESTERN US INC.**
By: _____ Michael J. Hrizuk, Title: Vice President, Manufacturing	By: _____ Garry Kehler, Title: Vice President and General Counsel
	By: _____ Gerald Van Campen Title: Vice President, Sales

2. The initial term of the Lease is extended through December 31, 2014, subject to extension or earlier termination as provided in the Lease, as amended.

3. The Amendment makes certain other amendments to the Lease as provided in the Amendment. Except as specifically amended by the Amendment, the Lease remains in full force and effect.

4. Reference is made to the Lease and the Amendment for a full statement of the terms and conditions of the Lease, all of which are hereby incorporated by reference as amended by the Amendment.

5. Nothing in this Memorandum of Amendment to Lease shall be construed to amend, modify, change, alter, amplify, limit, interpret or supersede any of the terms and provisions of the Lease, as amended by the Amendment, which shall in all things control. This Memorandum may be signed in counterparts, all of which will be an original, and all taken together will constitute one original document.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Memorandum of Amendment to Lease to be executed as of the 1st day of January, 2010.

LANDLORD:	**TENANT**
ASH GROVE CEMENT COMPANY	**GRAYMONT WESTERN US INC.**
By: _____ Michael J. Hrizuk, Title: Vice President, Manufacturing	By: _____ Wayne Wagner, Title: Executive Vice President Sales
	By: _____ Gerald Van Campen Title: Vice President, Sales

AGC0011856

2. The initial term of the Lease is extended through December 31, 2014, subject to extension or earlier termination as provided in the Lease, as amended.

3. The Amendment makes certain other amendments to the Lease as provided in the Amendment. Except as specifically amended by the Amendment, the Lease remains in full force and effect.

4. Reference is made to the Lease and the Amendment for a full statement of the terms and conditions of the Lease, all of which are hereby incorporated by reference as amended by the Amendment.

5. Nothing in this Memorandum of Amendment to Lease shall be construed to amend, modify, change, alter, amplify, limit, interpret or supersede any of the terms and provisions of the Lease, as amended by the Amendment, which shall in all things control. This Memorandum may be signed in counterparts, all of which will be an original, and all taken together will constitute one original document.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Memorandum of Amendment to Lease to be executed as of the 1st day of January, 2010.

LANDLORD:	**TENANT**
ASH GROVE CEMENT COMPANY	**GRAYMONT WESTERN US INC.**
By: _____ Michael J. Hrizuk, Title: Vice President, Manufacturing	By: _____ Wayne Wagner, Title: Executive Vice President Sales
	By: _____ Gerald Van Campen Title: Vice President, Sales

AGC0011857

STATE OF Oregon)
) ss.
County of Clackamas)

This instrument was acknowledged before me on this 10 day of March, 2010, by MICHAEL J. HRIZUK, as Vice President, Manufacturing, of ASH GROVE CEMENT COMPANY, a Delaware corporation, on behalf of the corporation.

OFFICIAL SEAL
JANE C OTT
NOTARY PUBLIC-OREGON
COMMISSION NO. 421421
MY COMMISSION EXPIRES SEPT. 18, 2011

Jane C. Ott
Notary Public for Oregon
My Commission Expires: 9/18/2011

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by GARRY KEHLER, as Vice President and General Counsel, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by GERALD VAN-CAMPEN, as Vice President, Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

AGC0011858

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this _____ day of _____, 2010, by MICHAEL J. HRIZUK, as Vice President, Manufacturing, of ASH GROVE CEMENT COMPANY, a Delaware corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

~~STATE OF~~ PROVINCE OF)
) ss.
~~County of~~ BRITISH COLUMBIA)

This instrument was acknowledged before me on this 11th day of MARCH, 2010, by WAYNE WAGNER, as Executive Vice President Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for BRITISH COLUMBIA
My Commission Expires: NO FIXED EXPIRY

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this _____ day of _____, 2010, by GERALD VAN-CAMPEN, as Vice President, Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

AGC0011859

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by MICHAEL J. HRIZUK, as Vice President, Manufacturing, of ASH GROVE CEMENT COMPANY, a Delaware corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

STATE OF _____)
) ss.
County of _____)

This instrument was acknowledged before me on this ____ day of _____, 2010, by WAYNE WAGNER, as Executive Vice President Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

_____
Notary Public for _____
My Commission Expires: _____

STATE OF Utah)
) ss.
County of Salt Lake)

This instrument was acknowledged before me on this 11th day of March, 2010, by GERALD VAN-CAMPEN, as Vice President, Sales, of GRAYMONT WESTERN US INC., a Utah corporation, on behalf of the corporation.

Notary Public
KRISTA M. HOOKS
Commission #575168
My Commission Expires
June 10, 2012
State of Utah

Krista M. Hooks
Notary Public for Graymont Western US Inc.
My Commission Expires: June 10, 2012

AGC0011860

EXHIBIT A
TO
MEMORANDUM OF AMENDMENT TO LEASE

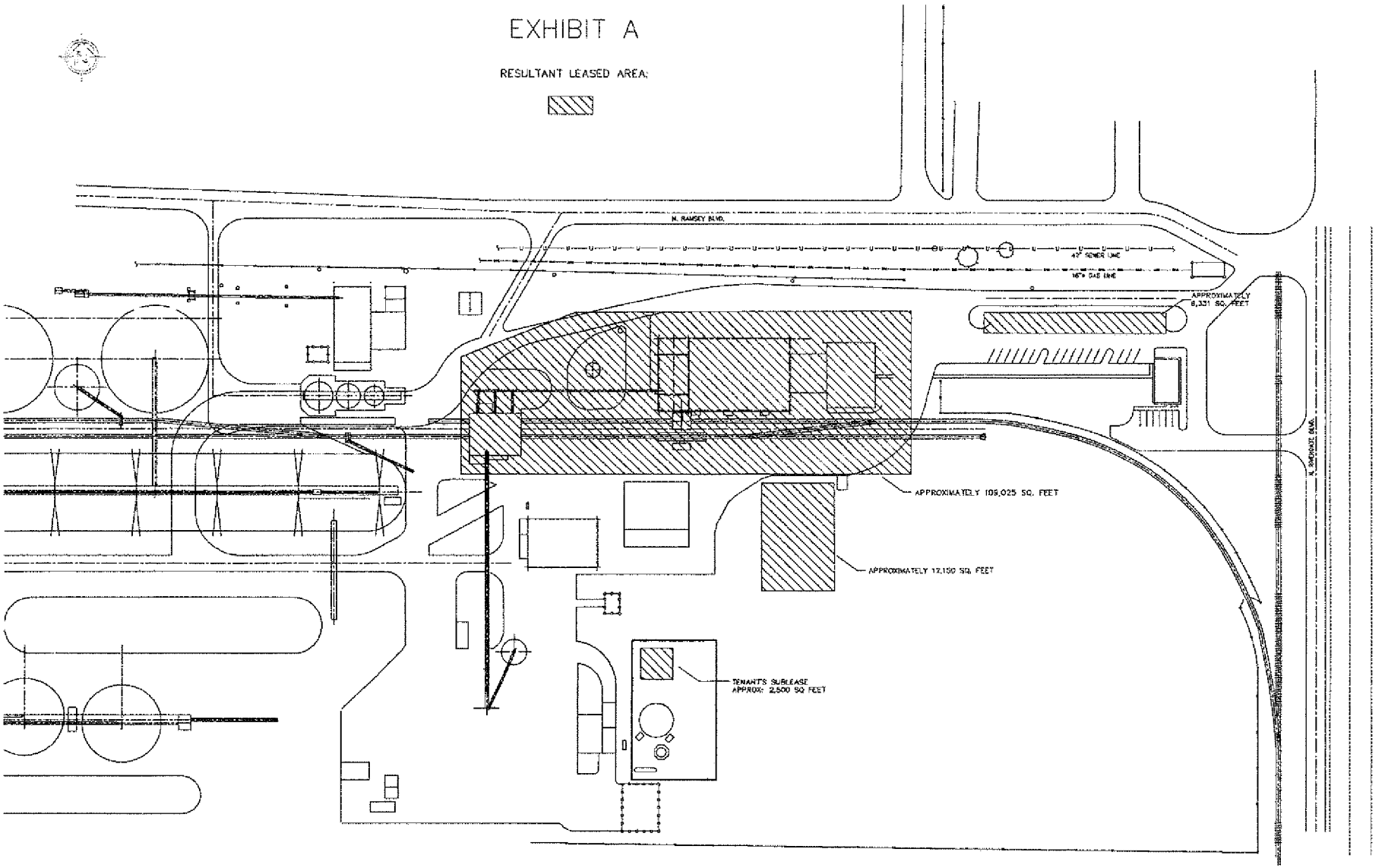
Diagram of Resultant Premises

SEE ATTACHED

AGC0011861

EXHIBIT A

RESULTANT LEASED AREA:



AGC0011862

Oregon
Theodore R. Kulongoski, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 378-3805
FAX (503) 378-4844
www.oregonstatelands.us.

State Land Board

Theodore R. Kulongoski
Governor

Bill Bradbury
Secretary of State

Randall Edwards
State Treasurer

April 23, 2004

JV02\32187-RG
GLENN DOLLAR
ASH GROVE CEMENT COMPANY
13939 N RIVERGATE BLVD
PORTLAND OR 97203

RE: State Wharf Registration No. 32187-RG

Dear Mr. Dollar:

This letter is to inform you that your wharf has been registered with the Department of State Lands. The issue date is May 1, 2004 and the registration will expire on April 30, 2009.

Please be aware that if your use of the structure for wharfing purposes (See ORS 780.040 attached) ceases, the registration terminates and a lease will be required for the structure.

Under OAR 141-082-0160 (4)(a) and (b) you are required to notify the Department in writing of any of the following changes:

a) Change in the location of a registered structure ninety (90) calendar days prior to such change
b) Change in ownership of a registered structure within ninety (90) calendar days of the transfer of ownership. If the transfer is part of a legal transaction but not a sale, the Department shall be notified within thirty (30) days of the final settlement or decision.

Your registration must be renewed every five (5) years. The Department will notify you by mail and provide a form to renew the registration ninety (90 days) prior to the expiration date of the registration.

Sincerely,

Stephen J. Purchase
Assistant Director
Field Operations

c: Multnomah County Assessors
Multnomah County Planning
City of Portland
Oregon State Marine Board

J:\Attachment\Awest\LAS\RG Registrations\Wharf\32187-RG.doc

AGC0011863

DIVISION OF STATE LAN
RECEIVED
APR 16 P 1:20

Wharf Structure Registration Application

AGENCY WILL ASSIGN NUMBER
Oregon Department of State Lands Application No. 32187-RG

SEND ONE SIGNED COPY OF YOUR APPLICATION TO:

(If your project is West of the Cascade Crest)
WESTERN REGION
Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
503-378-3805

(If your project is East of the Cascade Crest)
EASTERN REGION
Department of State Lands
20300 Empire Avenue
Bend, OR 97701
541-388-6112

❶ APPLICANT INFORMATION

Applicant Name and Address: Ash Grove Cement Company, 13939 N Rivergate Blvd., Portland, OR 97203
Business Phone # 503 286 1677
Home Phone # NA
FAX # 503 289 2272

Local Contact Person/Responsible Party Name and Address: Glenn F. Dollar, 13939 N Rivergate Blvd., Portland, OR 97203
Business Phone # 503 286 1677
Home Phone #
FAX # 503 289 2272

User/Operator of Structure Name and Address: Ash Grove Cement Company, 13939 N Rivergate Blvd., Portland, OR 97203
Business Phone # 503 286-1677
Home Phone #
FAX # 503 289 2272

Riparian Property Owner (vested title); if different than applicant Name and Address: Same as above
Business Phone #
Home Phone #
FAX #

❷ WHARF LOCATION

Street, Road or other descriptive location: 13939 N. Rivergate Blvd., Portland, OR 97203

Legal Description: Quarter: Linnton Quadrangle; Section: 26 & 27; Township: 2N; Range: 1W

Within City Limits (City or Town): Portland
County: Multnomah
Tax Map #:
Tax Lot #: 700

Waterway: Willamette
River Mile: 2.9
County Property Tax Account Number: R 325200

Port District Name and Address: Rivergate Port of Portland, 3556 NW Front Ave. PDX 97210
Business Phone # 503 3262730
FAX #

Facing downstream, is the structure on the ☐ Left or ☒ Right bank?

Is consent to enter property granted to the Department of State Lands? ◉ Yes ○ No

AGC0011864

WHARF USE/USES and DESCRIPTION

● Existing Facility ○ Proposed for Construction

Please describe the use/uses which occur on/at the wharf structure, including any governmental function (e.g.) U.S. Military ship/facilities, fire department or sheriff vessels.

Used specifically for anchoring of barges.

ATTACH ALL OF THE FOLLOWING:

✓ A. Full size assessor map (16 inches x 16 inches), scale: 1 inch = 100 feet, that contains the riparian uplands. Do not mark on this map.

✓ B. A copy of the current year's property tax statement, which identifies the present owner's name(s), land values, land size and tax account numbers of the riparian uplands.

✓ C. A separate drawing to a scale of 1 inch = 100 feet of all existing and proposed structures for the wharf registration area. Show the dimensions of the wharf each area by length and width.

✓ D. A street or highway location map with road directions to the site from the nearest main highway or road.

✓ E. Photo(s) of the existing structure or site of proposed structure.

APPLICANT SIGNATURE

The maximum term for a wharf registration is 5 years. (Government Function Facilities 10 years)

I certify that to the best of my knowledge, the structure identified in this application meets all applicable local, state, and federal laws including the local comprehensive land use plan and zoning ordinance requirements.

Glenn F. Dollar
Print /Type Name

EH&S Manager
Title

Glenn F. Dollar
Applicant Signature

4-6-04
Date

J:\Proprietary\Wharf\Application\Wharf Application.doc
Revised 1/8/04

AGC0011865

Oregon
Theodore R. Kulongoski, Governor

Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
(503) 986-5200
FAX (503) 378-4844
www.orcgonstatelands.us.

State Land Board

Theodore R. Kulongoski
Governor

Kate Brown
Secretary of State

Ben Westlund
State Treasurer

March 6, 2009

JV02\32187-RG
ASH GROVE CEMENT COMPANY
GLENN DOLLAR
13939 N RIVERGATE BLVD
PORTLAND OR 97203

RE: State Wharf Registration No. 32187-RG

Dear Mr. Dollar:

This letter is to inform you that your wharf has been registered with the Department of State Lands. The issue date is May 1, 2009 and the registration will expire on April 30, 2014.

Please be aware that if your use of the structure for wharfing purposes (See ORS 780.040 attached) ceases, the registration terminates and a lease will be required for the structure.

Under OAR 141-082-0160 (4)(a) and (b) you are required to notify the Department in writing of any of the following changes:

a) Change in the location of a registered structure ninety (90) calendar days prior to such change
b) Change in ownership of a registered structure within ninety (90) calendar days of the transfer of ownership. If the transfer is part of a legal transaction but not a sale, the Department shall be notified within thirty (30) days of the final settlement or decision.

Your registration must be renewed every five (5) years. The Department will notify you by mail and provide a form to renew the registration ninety (90 days) prior to the expiration date of the registration.

Sincerely,

Stephen J. Purchase
Assistant Director
Land Management Division

c: Multnomah County Assessors
Multnomah County Planning
City of Portland
Oregon State Marine Board

\\santiam\Documents\app\2009_03\32187-RG 2009.doc

AGC0011866

Wharf Structure Registration Application

RECEIVED
FEB 24 2009
DEPARTMENT OF STATE LANDS

AGENCY WILL ASSIGN NUMBER
Oregon Department of State Lands Application No. 32187-EA

7107

SEND ONE SIGNED COPY OF YOUR APPLICATION TO:

(If your project is West of the Cascade Crest)
WESTERN REGION
Department of State Lands
775 Summer Street NE, Suite 100
Salem, OR 97301-1279
503-378-3805

(If your project is East of the Cascade Crest)
EASTERN REGION
Department of State Lands
1645 NE Forbes Road, Suite 112
Bend, OR 97701
541-388-6112

APPLICANT INFORMATION

Applicant Name and Address Ash Grove Cement Company 13939 N Rivergate Blvd. Portland, OR 97203	Business Phone # 503/286/1677 FAX # 503/289/2272
Local Contact Person/Responsible Party Name and Address Glenn F. Dollar 13939 N Rivergate Blvd. Portland, OR 97203	Business Phone # 503/286/1677 Home Phone # FAX # 503/289/2272
User/Operator of Structure Name and Address: Ash Grove Cement Company 13939 N Rivergate Blvd. Portland, OR 97203	Business Phone # 503/286/1677 FAX # 503/289/2272
Riparian Property Owner Ash Grove Cement Company 11011 Cody Street Overland Park, KS 66225	Business Phone # 913/451/8900 Home Phone # FAX # 913/345/4250

WHARF LOCATION

Street, Road or other descriptive location	Legal Description			
N Rivergate Blvd, Off Lombard and Columbia Blvd.	Quarter Linnton Quadrangle	Section 26 & 27	Township 2N	Range 1W

Within City Limits (City or Town)	County	Tax Map #	Tax Lot # 700
Portland, OR	Multnomah		

Waterway	River Mile	County Property Tax Account Number
Willamette	2.9	R325200

Port District Name and Address		Business Phone # 503/326/9730 FAX #
	Rivergate Port of Portland 3556 NW Front Ave. Portland, OR 97210	

Facing downstream, is the structure on the ☐ Left or X Right bank?

Is consent to enter property granted to the Department of State Lands? X Yes O No

AGC0011867

❸ WHAT USE/USES and DESCRIPTION

X Existing Facility O Proposed for Construction

Please describe the use/uses which occur on/at the wharf structure, including any governmental function (e.g.) U.S. Military ship/facilities, fire department or sheriff vessels.

Wharf is currently used to accommodate barges for the purpose of off-loading or discharging of rock.

❹ ATTACH ALL OF THE FOLLOWING:

_____A. Full size assessor map (16 inches x 16 inches), scale: 1 inch = 100 feet, that contains the riparian uplands. Do not mark on this map.

_____B. A copy of the current year's property tax statement, which identifies the present owner's name(s), land values, land size and tax account numbers of the riparian uplands.

_____C. A separate drawing to a scale of 1 inch = 100 feet of all existing and proposed structures for the wharf registration area. Show the dimensions of the wharf each area by length and width.

_____D. A street or highway location map with road directions to the site from the nearest main highway or road.

__X__E. Photo(s) of the existing structure or site of proposed structure.

● APPLICANT SIGNATURE

The maximum term for a wharf registration is 5 years. (Government Function Facilities 10 years)

I certify that to the best of my knowledge, the structure identified in this application meets all applicable local, state, and federal laws including the local comprehensive land use plan and zoning ordinance requirements.

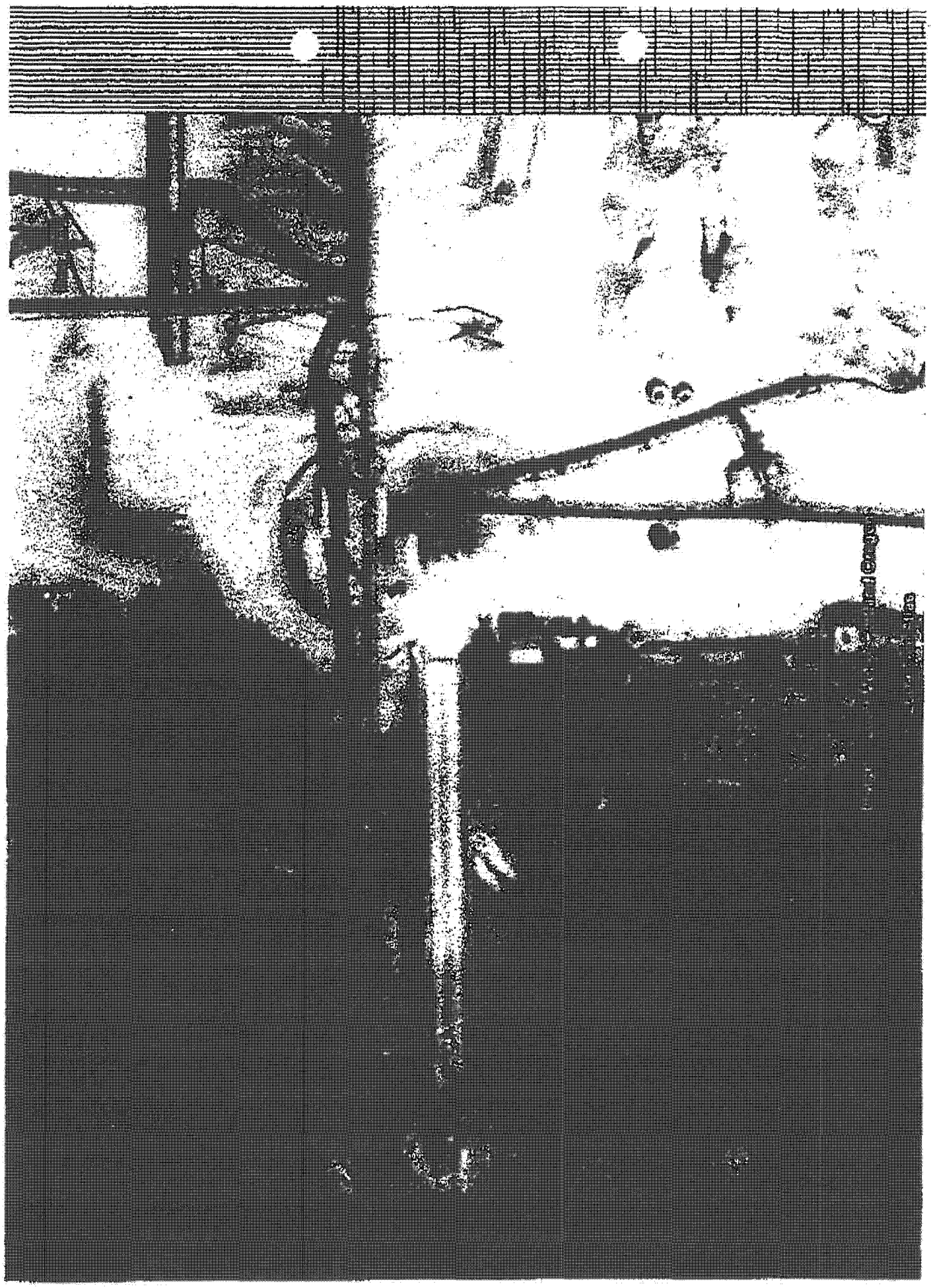
Glenn F. Dollar
Print /Type Name

EHS Manager
Title

Glenn F. Dollar
Applicant Signature

02/20/09
Date

Revised 1/8/06



Gary Church

From: Glenn Dollar
Sent: Friday, June 25, 2010 11:18 AM
To: Gary Church
Subject: RE: Rivergate Wharf Registration
Attachments: Rivergate Wharf Registration 2004.pdf

Gary,

Please find attached the 2004 wharf registration application and corresponding letter of registration.

Glenn F. Dollar
Environmental, Health and Safety Manager
Ash Grove Cement Company
13939 N Rivergate Blvd.
Portland, OR 97203
glenn.dollar@ashgrove.com
503-247-5423

From: Gary Church
Sent: Friday, June 25, 2010 6:56 AM
To: Glenn Dollar
Subject: RE: Rivergate Wharf Registration

Glenn:

I would like a scanned version of the 2004 form too.

Thanks for your usual prompt follow up.

Gary

Confidentiality Note
This e-mail is intended only for the person(s) to whom it is addressed and may contain information that is privileged, confidential or otherwise protected from disclosure. Dissemination, distribution or copying by anyone other than the intended recipient(s) is prohibited. If you received this e-mail in error, please notify us by reply e-mail and delete this e-mail message from your computer. Thank you.

Gary Church
Assistant General Counsel & Assistant Secretary
Ash Grove Cement Company
11011 Cody
Overland Park, KS 66210
E-mail: gary.church@ashgrove.com
Ph.: 913-319-6004
Fax: 913-451-8324

From: Glenn Dollar
Sent: Thursday, June 24, 2010 5:19 PM
To: Gary Church
Subject: Rivergate Wharf Registration

Gary,

You're right Gary. We do not have a lease for the dock at the Rivergate Plant. The DSL requires the dock, or wharf is

the term DSL uses, at the Rivergate Plant to be "registered". Attached please find the registration for the wharf at the Rivergate Plant. The current registration was received after Trinity was at the plant scanning documents. I do have another registration from 2004 which I can scan and send to you if you need it for your files. Please let me know if there is anything else I can help you with.

Respectfully,

Glenn F. Dollar
Environmental, Health and Safety Manager
Ash Grove Cement Company
13939 N Rivergate Blvd.
Portland, OR 97203
glenn.dollar@ashgrove.com
503-247-5423

EA - 39094

PIPELINE EASEMENT

The STATE OF OREGON, by and through its Division of State Lands, GRANTOR, hereby grants to Oregon Steel Mills/Ash Grove Cement West, Inc., GRANTEE, an easement and right to construct, maintain, operate and replace a pipeline in, over, and across the state-owned submerged and submersible land of the Willamette River, in Multnomah County, Oregon, described as follows:

A strip of state-owned land lying below the line of Ordinary High Water on the right bank of the Willamette River and below the line of Ordinary Low Water on the left bank of the Willamette River, and being 100 feet wide lying 50 feet on each side of the following described center line;

Commencing at the southwesterly corner of Section 26, Township 2 North, Range 1 West, of the Willamette Meridian in the county of Multnomah, State of Oregon;

thence East 1,205.42 feet to the east line of Ash Grove Cement West, Inc., extended as recorded in Book 2161, Page 237 of the Multnomah County Deed Records;

thence North 1,675.09 feet to the southern line of Oregon Steel Mills, a division of Gilmore Steel Corporation as recorded in Book 586, Page 1355 of the Multnomah County Book of Records;

thence along a 16° curve to the left a distance of 473.47 feet;

thence North 75°45'20" West a distance of 1,359.35 feet;

thence North 8°23'12" East a distance of 220.00 feet to the TRUE POINT OF BEGINNING;

thence North 88°20' West a distance of 2,015.00 feet, more or less, to a point on the east line of the Everett C. Wessinger tract 50.00 feet south of the Northeast corner of the James Menzie D.L.C., and the terminus of this easement.

TO HAVE AND TO HOLD the same unto GRANTEE in perpetuity, subject to the following conditions:

1. Construction in navigable waters shall conform to standards and specifications set by the U. S. Army Corps of Engineers or the U.S. Coast Guard for this project.

2. The bed and banks of the waterway shall be restored to a condition acceptable to the GRANTOR as soon as construction or maintenance is completed.

3. Any blasting which may be necessary in the construction of the pipeline shall be performed according to the laws of the State.

4. GRANTOR reserves the right to lease or otherwise utilize the state-owned lands within the granted area hereinabove described in a manner and for uses that will not be incompatible with the primary use for which this easement is granted.

5. GRANTOR shall have the right to terminate the easement for noncompliance with the easement conditions or any lawful requirement by a regulatory agency of this state as it pertains to this easement.

OSL0002412
AGC0011872

6. GRANTEE agrees to defend and hold GRANTOR harmless from any and all claims suffered or alleged to be suffered on the premises. Further, GRANTEE shall be responsible for the payment of any fines or penalties charged against the premises as a result of GRANTEE's action in not complying with laws or regulations affecting the premises.

7. If the facility for which this easement is granted is not used for a period of five (5) consecutive years, this easement may be terminated by written notice from GRANTOR to GRANTEE at its last known address. Upon termination, GRANTEE will have 90 days to remove the pipeline and appurtenances from the state-owned lands.

8. Nothing in this document may be construed as permission, except during construction or maintenance periods, to GRANTEE to interfere with navigation or reduce the public's rights to the free and unimpeded use of the navigable waters of the State of Oregon within the boundaries of this easement; provided, however, that to the extent necessary to facilitate construction and maintenance of these facilities, GRANTEE may so interfere, but shall keep such interference to an absolute minimum.

9. GRANTEE shall pay all assessments that may be legally charged on public lands which are levied against the property subject to this easement, whether or not such assessments have been levied against the leasehold or STATE by the assessing agency.

This easement does not convey an estate in fee simple of the lands used for a right-of-way. This grant is for an easement only, and title remains in the State of Oregon.

WITNESS the seal of the Division of State Lands affixed this 14th day of November, 1989.

STATE OF OREGON, acting by and
through its Division of State Lands

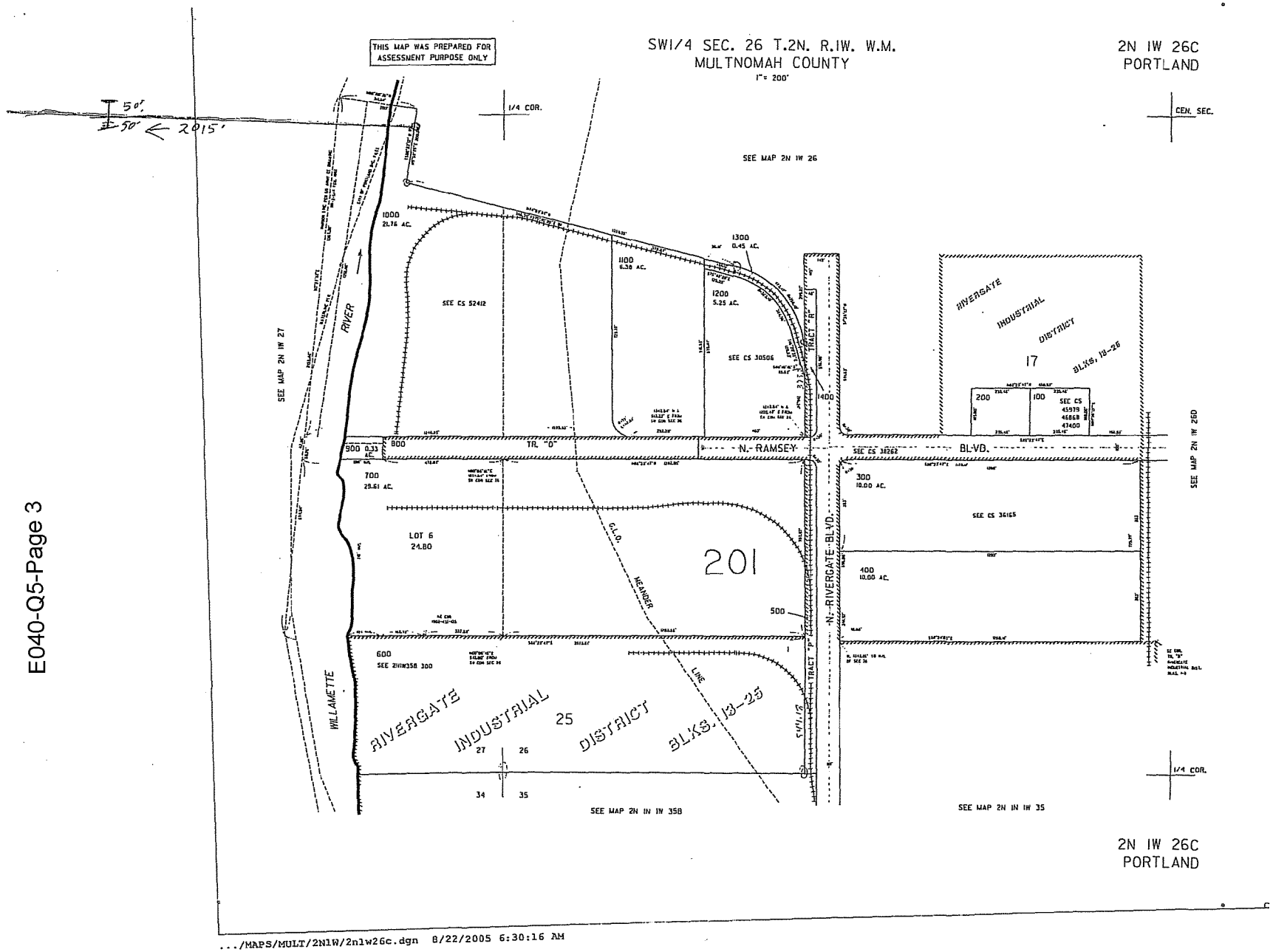
/s/

Janet C. Neuman, Assistant Director

/SEAL/

eas:54

OSL0002413
AGC0011873



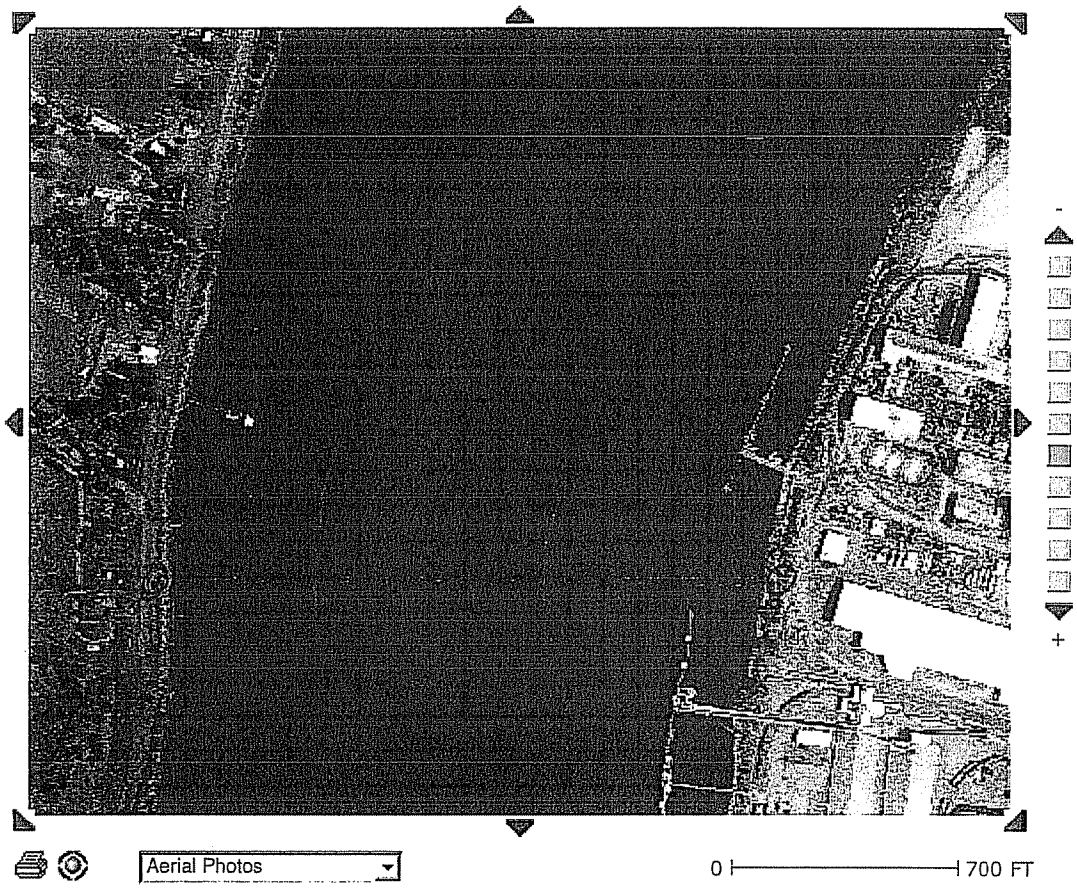
E040-Q5-Page 3

PortlandMaps

9891 N RAMSEY BLVD - ST. JOHNS - PORTLAND

Aerial Photos Detail

Long -122.78469 Lat 45.62902



City of Portland, Corporate GIS

7/26/2007

THE GIS APPLICATIONS ACCESSED THROUGH THIS WEB SITE PROVIDE A VISUAL DISPLAY OF DATA FOR YOUR CONVENIENCE. EVERY REASONABLE EFFORT HAS BEEN MADE TO ASSURE THE ACCURACY OF THE MAPS AND ASSOCIATED DATA. THE CITY OF PORTLAND MAKES NO WARRANTY, REPRESENTATION OR GUARANTY AS TO THE CONTENT, SEQUENCE, ACCURACY, TIMELINESS OR COMPLETENESS OF ANY OF THE DATA PROVIDED HEREIN. THE USER OF THESE APPLICATIONS SHOULD NOT RELY ON THE DATA PROVIDED HEREIN FOR ANY REASON. THE CITY OF PORTLAND EXPLICITLY DISCLAIMS ANY REPRESENTATIONS AND WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE CITY OF PORTLAND SHALL ASSUME NO LIABILITY FOR ANY ERRORS, OMISSIONS, OR INACCURACIES IN THE INFORMATION PROVIDED REGARDLESS OF HOW CAUSED, THE CITY OF PORTLAND SHALL ASSUME NO LIABILITY FOR ANY DECISIONS MADE OR ACTIONS TAKEN OR NOT TAKEN BY THE USER OF THE APPLICATIONS IN RELIANCE UPON ANY INFORMATION OR DATA FURNISHED HEREUNDER. TO BE SURE OF COMPLETE ACCURACY, PLEASE CHECK WITH CITY STAFF FOR UPDATED INFORMATION.

PortlandMaps © 2007 City of Portland, Oregon

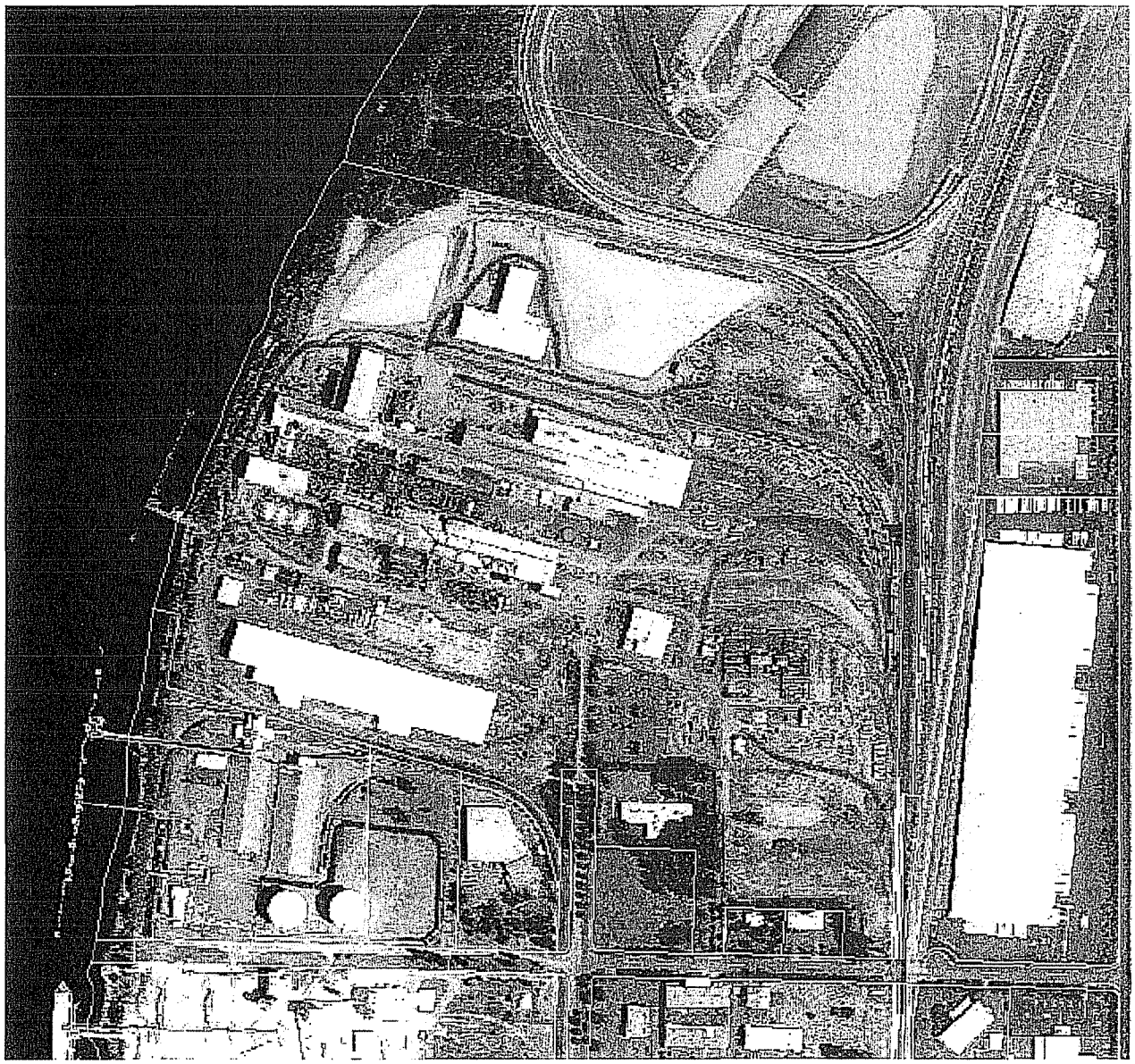
OSL0002415
AGC0011875

PortlandMaps

9891 N RAMSEY BLVD - ST. JOHNS - PORTLAND

Aerial Photo

2006 / '05 / '04 / '03 / '02 / '01 6" / 2' / 4' / **10'** / 20' Streets: On / **Off** Lots: **On** / Off Dot: **On** / Off



City of Portland, Corporate GIS 7/26/2007

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PortlandMaps © 2007 City of Portland, Oregon

OSL0002416
AGC0011876

OMRI Listed®

The following product is OMRI Listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Program Rule.

Product
Ground Dolomite

Company
Ash Grove Cement Co.
Mr. Garu Wright
13939 N Rivergate Blvd.
Portland, OR 97203

Status	Category	Issue Date
Allowed	Dolomite – mined	18-Mar-03

Product number	Class	Expiration Date
agc-9965	Crop Fertilizers and Soil Amendments	01-Mar-2013

Restrictions
Not Applicable.

Peggy Miars
Executive Director

Product review is conducted according to the policies in the current OMRI Policy Manual and based on the standards in the current OMRI Standards Manual.
To verify the current status of this or any OMRI Listed product, view the most current version of the OMRI Products List at www.omri.org.
OMRI listing is not equivalent to organic certification and is not a product endorsement. It cannot be construed as such.
Final decisions on the acceptability of a product for use in a certified organic system are the responsibility of a USDA accredited certification agent.
It is the operator's responsibility to properly use the product, including following any restrictions.

OMRI® Listed

Organic Materials Review Institute
P.O. Box 11558, Eugene, OR 97440-3758, USA
541.343.7600 · fax 541.343.8971 · info@omri.org · www.omri.org

tm3 fin r3.3.17.201112050929

OMRI Listed®

The following product is OMRI Listed. It may be used in certified organic production or food processing and handling according to the USDA National Organic Program Rule.

Product
Limestone Flour

Company
Ash Grove Cement Co.
Mr. Garu Wright
13939 N Rivergate Blvd.
Portland, OR 97203

Status	Category	Issue Date
Allowed	Limestone	15-Mar-03

Product number	Class	Expiration Date
agc-9964	Crop Fertilizers and Soil Amendments	01-Mar-2013

Restrictions
Not Applicable.

Peggy Miars
Executive Director

Product review is conducted according to the policies in the current OMRI Policy Manual and based on the standards in the current OMRI Standards Manual.
To verify the current status of this or any OMRI Listed product, view the most current version of the OMRI Products List at www.omri.org.
OMRI listing is not equivalent to organic certification and is not a product endorsement. It cannot be construed as such.
Final decisions on the acceptability of a product for use in a certified organic system are the responsibility of a USDA accredited certification agent.
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tm3 fin r3.3.17.201112050929

Washington State
Department of Agriculture

PO Box 42560, Olympia, WA 98504-2560 Ph (360) 902-1877

In accordance with Chapter 15.86 RCW and Chapter 16-160 WAC this

MATERIAL REGISTRATION CERTIFICATE

is issued to

Ash Grove Cement Company
13939 N Rivergate Blvd
Portland, OR 97203

The products listed below have been verified to comply with the USDA National Organic Standards (7 CFR Part 205):

#	Product Name	Sub-Type	Type*	Annotations
705	Limestone Flour	Limestone	F & SA	None
706	Dolomite	Limestone	F & SA	None

*Types: CPA – Crop Production Aid, D & PC – Disease & Pest Control, F & SA – Fertilizer & Soil Amendment, LPA – Livestock Production Aid, P & H – Processing & Handling

Issue date: October 18, 2011

Registration valid through October 31, 2012

Brenda Book
Organic Program Manager
DEPARTMENT OF AGRICULTURE

AGR 2291 (R/9/11)

REGISTERED MATERIAL
For Use In Organic Agriculture
Washington State Dept. of Agriculture

AGC0011879

From: AMIDON Kathy [AMIDON.Kathy@deq.state.or.us]
Sent: Monday, March 23, 2009 10:19 AM
To: Glenn Dollar
Subject: RE: WO-090110 Environmental R15883

Thank you, Glenn. While the slag is somewhat finer material, this should not present significant differences to the operation. AP-42, 11.12-2 treats cement and blast-furnace slag the same, with the same emission factors. There is no need to make changes to the permit at this time.

As a precaution, please have someone conduct a visual observation of the baghouses during the first instance of processing the new material.

From: Glenn Dollar [mailto:glenn.dollar@ashgrove.com]
Sent: Friday, March 20, 2009 8:51 AM
To: AMIDON Kathy
Cc: Gary Wright; Bob Vantuyl
Subject: FW: WO-090110 Environmental R15883

Good morning Kathy,

I hope this note finds you well. I wanted to forward you information I received this morning regarding the handling of Ground Granulated Blast-Furnace Slag through our Portland terminal. We will be handling this material in the same manner as we have cement in the past. If you have any additional questions I may help you with please give me a call. Thanks Kathy.

Best regards,

Glenn F. Dollar
Environmental, Health & Safety Manager
Ash Grove Cement Company
Glenn.Dollar@ashgrove.com
Office: 503-247-5423
Cell: 503-545-6056

From: Bob Vantuyl
Sent: Friday, March 20, 2009 8:02 AM
To: Glenn Dollar; Gary Wright
Subject: FW: WO-090110 Environmental R15883

Here are the sieve and visual comparisons of the iron to cement. Glenn, I suggest submitting these to Kathy with a note that based on these results, we believe the materials are similar to the extent that we would not expect there to be a difference in emissions from the handling of these materials through our bulk handling systems.

From: Darlyne Schell
Sent: Friday, March 20, 2009 9:47 AM

To: @Ash Grove Technical Center
Cc: Bob Vantuyl
Subject: FW: WO-090110 Environmental R15883

From: Kristen Freeman
Sent: Tuesday, March 17, 2009 2:44 PM
To: Darlyne Schell
Subject: WO-090110 Environmental R15883

gtg

Kristen Freeman
Geologist/Petrographer

Ash Grove Cement - Technical Center
11011 Cody, Suite 125
Overland Park, KS 66210

Phone 913-722-5998
Fax 913-722-6423
kristen.freeman@ashgrove.com

STANDARD

AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, #400
Portland, Oregon 97201
(503) 229-5554

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Ash Grove Cement Company
13939 N. Rivergate Blvd.
Portland, OR 97203

PLANT SITE LOCATION:

13939 N. Rivergate Blvd.
Portland, OR 97203

INFORMATION RELIED UPON:

Application No.: 22773
Date Received: 5/1/08

LAND USE COMPATIBILITY FINDING:

Approving Authority: City of Portland
Approval Date: 01/07/1997

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Ed Druback, Northwest Region Air Quality Manager — Dated 10/22/08

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Table 1 Code	Source Description	SIC / NAICS
Part B, 40	Lime manufacturing	3274 / 327410

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1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1. Visible Emissions

The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any fuel combustion source must not equal or exceed 20% opacity for a period aggregating more than 3 minutes in any one hour.

b. Emissions from any air contaminant source other than fuel burning equipment must not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

1.2. Particulate Matter Emissions

The permittee must ensure that particulate matter emissions from any air contaminant source other than fugitive emission sources do not exceed 0.1 grains per standard cubic foot.

1.3. Fugitive Emissions

The permittee must take reasonable precautions to prevent fugitive dust emissions by:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

1.4. Particulate Matter Fallout

The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

1.5. Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

2.0 OPERATION AND MAINTENANCE REQUIREMENTS

2.1. Work practices

The permittee must monitor each baghouse for visible emissions at least monthly. If visible emissions are observed, the permittee must document the location, cause, and corrective action taken to eliminate the visible emissions.

3.0 PLANT SITE EMISSION LIMITS

3.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	98	tons per year
PM_{10}	42	tons per year
SO_2	39	tons per year
NO_X	39	tons per year
CO	99	tons per year
VOC	39	tons per year

3.2. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

4.0 COMPLIANCE DEMONSTRATION

4.1. PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation for each pollutant:

$$E = \Sigma(EF \times P)/2000 \text{ lbs}$$

where,

E = pollutant emissions (ton/yr);
EF = pollutant emission factor (Condition 11.0);
P = process production parameter (Condition 12.0)

4.2. Emission Factors

The permittee must use the default emission factors provided in Condition 11.0 for calculating pollutant emissions, unless

alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

5.0 RECORDKEEPING REQUIREMENTS

5.1. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

a. The permittee must monitor each baghouse for visible emissions at least monthly. If visible emissions are observed, the permittee must document the location, cause and corrective action taken to eliminate the visible emissions.

b. Plant production of agricultural lime, quicklime, and hydrated lime (tons per year)

c. The amount and type of fuel which is used to produce agricultural lime and quicklime (gallons per year, MMBtu per year)

d. The amount of material received by barge and by rail (tons per year)

e. Monthly, perform a 12-month rolling emission calculation using the method in Condition 4.1 .

5.2. Excess Emissions

The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60-minute period. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation of the equipment or facility no later than 48 hours after the beginning of the excess emissions, unless continued operation is approved by the Department in accordance with OAR 340-214-0330(4).

5.3. Complaint Log

The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the

validity of each complaint and a record of actions taken for complaint resolution.

5.4. Retention of Records Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to the Department upon request.

6.0 REPORTING REQUIREMENTS

6.1. Excess Emissions The permittee must notify the Department by telephone or in person of any excess emissions which are of a nature that could endanger public health.

a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 7.3.

b. If the excess emissions occur during non-business hours, the permittee must notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

c. The permittee must also submit follow-up reports when required by the Department.

6.2. Annual Report For each year this permit is in effect, the permittee must submit to the Department by **February 15** two (2) copies of the following information for the previous calendar year:

a. Operating parameters:

i. Plant production of agricultural lime, quicklime, and hydrated lime (tons per year)

ii. The amount and type of fuel which is used to produce agricultural lime (MMBtu per year)

iii. The amount of material received by barge and by rail (tons per year)

iv. The calculated, rolling emission rates for each criteria pollutant for each month of the previous calendar year. Emissions must be calculated using the formula in Condition 4.1 and emission factors in Condition 11.0.

b. Records of all planned and unplanned excess emissions events.

c. Summary of complaints relating to air quality received by permittee during the year.

d. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

e. List major maintenance performed on pollution control equipment.

6.3. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

6.4. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

7.0 DEQ CONTACTS / ADDRESSES

7.1. Business Office

The permittee must submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:

Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, Oregon 97204-1390

7.2. Permit

The permittee must submit all Notices and applications that do not

	Coordinator	include payment to the Northwest Region's Permit Coordinator: Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
7.3.	**Field Office**	Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) to field office noted below. Department of Environmental Quality NWR-ESO/AQ 1550 NW Eastman Pkwy, Suite 290 Gresham, OR 97030 Telephone: (503) 667-8414
7.4.	**Web Site**	Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us

8.0 ADMINISTRATIVE REQUIREMENTS

8.1.	**Permit Renewal Application**	The completed application package for renewal of this permit is due on **May 1, 2013**. Two (2) copies of the application must be submitted to the DEQ Permit Coordinator listed in Condition 7.2.
8.2.	**Permit Modifications**	Application for a modification of this permit must be submitted not less than **60** days prior to the source modification. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the Business Office of the Department.

9.0 FEES

9.1.	**Annual Compliance Fee**	The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Standard ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

9.2.	**Change of Ownership or Company Name Fee**	The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.
9.3.	**Special Activity Fees**	The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.

10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1.	**Permitted Activities**	This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
10.2.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
10.3.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
10.4.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
10.5.	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
10.6.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
10.7.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
10.8.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
10.9.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor

does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

10.10. Termination, Revocation, or Modification

The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

11.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF Reference
Material handling/sizing	PM	0.118	Lbs/ton of material received by barge	AP-42
Material handling/sizing	PM	0.013	Lbs/ton of material received by rail	AP-42
Agricultural lime production	PM	0.056	Lbs/ton of agricultural lime	Vendor guarantee
Hydrated lime production	PM	0.446	Lbs/ton of hydrated lime	Source test
Material handling/sizing	PM_{10}	0.043	Lbs/ton of material received by barge	AP-42
Material handling/sizing	PM_{10}	0.003	Lbs/ton of material received by rail	AP-42
Agricultural lime production	PM_{10}	0.031	Lbs/ton of agricultural lime	Vendor guarantee
Hydrated lime production	PM_{10}	0.245	Lbs/ton of hydrated lime	AP-42, source test
Agricultural lime production	SO_2	0.004	Lbs/ton of agricultural lime	Engineering est., source test
Agricultural lime production	NO_X	0.017	Lbs/ton of agricultural lime	Source test
Agricultural lime production	CO	0.03	Lbs/ton of agricultural lime	Source test
Agricultural lime production	VOC	0.013	Lbs/ton of agricultural lime	Engineering estimate

12.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter	Frequency
Material handling/sizing	Amount of material received by barge (tons)	Monthly
Material handling/sizing	Amount of material received by rail (tons)	Monthly
Quicklime production	Amount of quicklime produced (tons)	Monthly
Agricultural lime production	Amount of agricultural lime produced (tons)	Monthly
Hydrated lime production	Amount of hydrated lime produced (tons)	Monthly
Natural gas usage	In million Btu's expended	Monthly
Landfill gas usage	In million Btu's expended	Monthly

13.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
Calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
Dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
Gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
Lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	Oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	Lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

STANDARD AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Department of Environmental Quality
Northwest Region

Source Information:

SIC	3274
NAICS	327410

Source Categories (Table 1 Part, code)	B, 40
Public Notice Category	III

Compliance and Emissions Monitoring Requirements:

FCE	
Compliance schedule	
Unassigned emissions	X
Emission credits	
Special Conditions	removed

Source test [date(s)]	
COMS	
CEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	2/15
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	
Other (specify)	

Air Programs

Synthetic Minor (SM)	
SM -80	
NSPS (list subparts)	
NESHAP (list subparts)	
Part 68 Risk Management	
CFC	

NSR	
PSD	
RACT	
TACT	X
Other (specify)	

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PERMITTING

PERMITTING ACTION

1. The permit is a renewal for an existing Air Contaminant Discharge Permit (ACDP) which was issued on 2/17/04 and was originally scheduled to expire on7/1/08. The company has a Standard permit to retain Baseline emission rates.

OTHER PERMITS

2. Other permits issued or required by the Department of Environmental Quality for this source include an NPDES for industrial waste water discharge. The facility is also a conditionally exempt generator of hazardous waste, and has a registered 500-gallon underground gasoline storage tank.

ATTAINMENT STATUS

3. The source is located in an attainment area for PM, PM_{10} and SO_2, and a maintenance area for Ozone (precursors are NO_X and VOC) and CO. This facility is an insignificant source of NO_X, VOC, and CO, and a moderate source of PM, PM_{10}, and SO_2.

SOURCE DESCRIPTION

OVERVIEW

4. The permittee operates a lime manufacturing plant. The process includes raw material handling and sizing of limestone and dolomite; hydrating lime to produce calcium hydroxide; and using roller mills/dryers to produce agricultural lime. The facility was established in 1964.

5. The following changes have been made to the facility since the last permit renewal:
   a. The dust collection system in the Hydrate/Warehouse Department was updated in January 2005. Two baghouses were replaced, and two were added.
   b. The rail off-loading process was modified in 2006. A new truck scale and drag chain (rail car unloader) were added. A new bucket elevator from the unloading area to the screening area was also installed.
   c. Operation of the limestone kilns ceased 5/31/06.

PROCESS AND CONTROL DEVICES

6. Main air contaminant sources at the facility are:

Unit A – Rock receiving, storage, and handling, controlled by water sprays and enclosures.

Unit B – Lime kilns; have been decommissioned.

Unit C – Hydrator, Quicklime, and Hydrate Storage/Shipping			acfm	°F	scfm
C-1a	Storage and Crusher (2)	Baghouse	18,700	70	18,700
C-2a	Hydrator (3)	Baghouse	2,395	200	1,900
C-3a	Milling Dust Collector	Baghouse	12,500	70	12,500
C-4	Hydrate Small Dust Collector (1)	Baghouse	2,000	70	2,000
C-5a	Hydrate Loadout (2)	Baghouse	1,800	70	1,800
C-12a	Raw Material Hopper and Sacking	Baghouse	1,000	70	1,000
C-13	Screw Transfer	Baghouse	500	70	500
C-14	Bin # 8	Baghouse	1,071	70	1,000
C-17	Bin #9	Baghouse	1,000	70	1,000
Unit D – Agricultural Limestone, Grinding, Storage, and Shipping					
D-7	Roller Mill #1	Baghouse	17,000	175	14,100
D-8	Roller Mill #2	Baghouse	17,000	175	14,100
D-9	Roller Mill #3	Baghouse	17,000	175	14,100
D-10	Roller Mill Product Bins	Baghouse	4,000	100	3,700
D-11	W. Product Screw Conveyor	Baghouse	10,122	100	9,500
D-15	Roller Mill #4	Baghouse	22,500	175	18,700
D-11N	N. Roller Mill Product Loadout	Baghouse	900	70	900
D-11S	S. Roller Mill Product Loadout	Baghouse	900	70	900

Notes:

(1) 1,644 scfm per source test 4/3/73
(2) Vendor guarantee information/engineering estimate
(3) Source test report dated 9/30/02

A complete list of emission points and controls is contained in the source file.

COMPLIANCE

7. The facility was inspected on 8/8/02 and 9/7/05, and found to be in compliance with permit conditions.

8. One verified complaint was lodged against the facility for having track-out on a secondary road in 9/07. Ash Grove was contacted, and began watering the road more often. No further action was deemed necessary.

SPECIAL CONDITIONS

9. Special conditions regarding specific limits under PSD and analysis of used fuel have been removed from the permit. The kilns to which these limits applied have ceased operation and are being dismantled.

EMISSIONS

10. Proposed PSEL information:

Pollutant	Baseline Emission Rate	Netting Basis	PTE	Plant Site Emission Limits (PSEL)		
				Previous PSEL	Proposed PSEL	PSEL Increase/ Decrease
PM	95	95	98	98	98	0
PM_{10}	52	52	42	66	42	-24
SO_2	43	53	2	82	39	-43
NO_X	36	36	8	75	39	-36
CO	21	21	14	63	99	+33
VOC	2	2	6	41	39	-2

a. All amounts shown above are in tons/year.
b. The facility's potential to emit (PTE) changed with the removal of the lime kilns in 2006, except for PM.
c. The proposed PSELs for PM and PM_{10} are equal to the facility's PTE.
d. The proposed PSELs for other pollutants have PTE lower than the Generic PSEL. The PSELs for these pollutants are set at the Generic level.
e. The PSEL are based on the use of 949,000 tons of ag lime through the mills/dryers, and 50,000 tons/year of hydrate lime produced.
f. Processes at the plant are fueled by landfill gas and natural gas.
g. Emissions estimates have been upgraded through extensive calculations, including drop heights in materials handling, wind erosion, and calculation of percentage of PM_{10} from PM, and are available in the file. AP-42 tables used are 11.19.2.2, 13.2.4, 13.2.5, and 11.17-7.
h. The PSEL is a federally enforceable limit on the potential to emit.

11. Ash Grove requested Emission Reduction Credits (ERC) for pollutants no longer emitted by the kilns under OAR Chapter 340, Division 268. The request did not meet the criteria for an application contemporaneous with the shutdown of the kilns per OAR 34-268-0030, and the request was denied.

12. In addition to the PSEL, the permit includes the following:

Pollutant	Unassigned Emissions (tons/yr)	Emission Reduction Credits (tons/yr)
PM	n/a	n/a
PM_{10}	10	n/a
SO_2	14	n/a
NO_x	n/a	n/a
CO	n/a	n/a
VOC	n/a	n/a

a. Unassigned emissions are a result of a decrease in the facility's PTE due to removal of the lime kilns in 2006.

SIGNIFICANT EMISSION RATE ANALYSIS

13. For each pollutant, the proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

14. A major source is a facility that has the potential to emit (PTE) 100 or more tons per year of any criteria pollutant. This facility no longer has the potential to emit criteria pollutants at those levels. Since the removal of the lime kilns, the facility's PTE is 98 tons/yr PM; 42 tons/yr PM_{10}; 8 tons/yr NO_X; 2 tons/yr SO_2; 14 tons/year CO; and 6 tons/yr VOC. Calculations are available in the file.

HAZARDOUS AIR POLLUTANTS

15. A major source is a facility that has the potential to emit 10 or more tons/year of any single HAP, or 25 or more tons of combined HAPs. The facility would previously have been a major source for HAP if unregulated. With the removal of the lime kilns, that is no longer true. The remaining parts of the plant use only natural gas and landfill gas as fuels. Combined HAPs for the facility have been calculated at 0.02 tons/year.

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

16. 40 CFR Part 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants was adopted by Oregon for Title V sources only. This facility is not a major source, thus not subject to the NSPS.

NESHAPS/MACT APPLICABILITY

17. The proposed 40 CFR Part 63, Subpart AAAAA, applies to plants that calcinate limestone. The subpart is not applicable because the facility no longer dries limestone.

RACT APPLICABILITY

18. The facility is located in the Portland AQMA, but it is not one of the listed source categories in OAR 340-232, thus the RACT rules do not apply

TACT APPLICABILITY

19. The source is meeting the states TACT/Highest and Best Rules by the use of baghouses on all process lines. The grain loading limits on the baghouses are more stringent than those allowed under the process weight rule (OAR 340-266-0300 - 0320).

SOURCE TESTING

20. The results of the most recent source tests are listed below:

Emission Device	Test Date	Fuel Type	Production Rate	Pollutant	Measured Value
Roller Mill/ Dryer #4	9/13/07	Natural gas	52 tons/hr	PM	0.29 lb/hr 0.034 gr/dscf
Hydrator	4/16/02	n/a	10.4 tons/hr	PM	0.009 lb/ton 0.018 gr/dscf

21. Ash Grove conducts a scheduled maintenance program on all baghouses at the facility. Past source tests have shown that PM emissions from the baghouses are consistently much lower than the grain loading standard. No source test will be required during this permit term.

PUBLIC NOTICE

22. Pursuant to OAR 340-216-0066(4)(a)(A), renewals of Standard Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3)(c). Therefore, the proposed permit was placed on public notice from September 12, 2008 until 5pm, October 20, 2008. No comments were received. No requests for a public hearing were received.

ASH GROVE CEMENT COMPANY

RIVERGATE LIME DIVISION - WESTERN REGION
13939 N. RIVERGATE BLVD.
PORTLAND, OREGON 97203
PHONE (503) 286-1677
FAX (503) 289-2272

January 20, 2009

Department of Environmental Quality
Air Quality Division, Northwest Region
2020 SW Fourth Ave. Ste. 400
Portland, Oregon 97201-4987

Annual Report — Permit #26-1891
Ash Grove Cement Company
Rivergate Lime Plant

Please find enclosed two copies of the Annual Report for ACDP #26-1891.

The Rivergate Lime Plant was in compliance with Permit #26-1891 conditions for the year 2008.

Operating Parameters:

1. Annual plant production of Ground Product for 2008 was 368,164 tons.
2. Annual plant production of Hydrated Lime for 2008 was 19,014 tons.
3. Annual quantities and types of fuels for 2008:

Used Oil	0 gal
Natural Gas/Ag-Lime	3,037 net MMBTU
Landfill Gas/Ag-Lime	112,469 net MMBTU

Annual Report

During 2008 there were no permanent changes made in plant process, production levels, and/or pollution control equipment that affected air contaminant emissions.

During 2008, there were no planned or unplanned excess emission events.

Summary of complaints relating to air quality received by permittee during the 2008 year:

There were no complaints received by the permittee during the 2008 year.

Major maintenance performed on pollution control equipment during 2008:

Dust Collector, 246.BF1, #1 Ag Mill Pulse Jet, Replaced all bags.

Dust Collector, 276.BF1, Ag Mill #4, Replaced all bags.

Dust Collector, 256.BF1, #2 Ag Mill Pulse Jet, Replaced all bags.

Dust Collector, 631P.BF1, Ag Mill Screws and Bucket Elevators, Replaced all bags.

Dust Collector, 630.BF1, Ag Scale Load Out, Replaced all bags.

Glenn F. Dollar

Glenn F. Dollar

Environmental, Health and Safety Manager
Ash Grove Cement Company

AGC0011905

Production	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	12 Month Rolling Average	
Material Received by Barge	38,740	38,376	25,366	36,452	12,774	25,754	25,488	51,502	52,262	50,736	12,592	25,129	395,171	
Material Received by Rail	3,864	2,171	2,662	3,101	2,330	5,629	4,483	5,122	5,158	4,376	3,022	2,358	44,276	
Kiln #1 Production	-												0	
Kiln #2 Production	-												0	
Kiln #3 Production	-												0	
Tons of Quicklime Produced	-												0	
Tons Of Hydrate Produced	1,451	363	378	841	673	2,910	3,204	3,688	2,426	1,518	1,194	368	19,014	
Tons of Tailings (Ag Special)	-												0	
Tons of Ag	4,712	4,403	3,667	6,230	10,461	7,626	2,811	14,519	46,614	33,982	8,425	3,307	146,757	
Tons of Flour	14,377	18,203	18,537	19,622	16,290	17,340	19,382	19,914	17,623	14,980	7,100	6,908	190,476	
Tons of Dolomite, Ground	449	984	1,394	1,351	2,771	610	986	2,836	9,990	7,495	1,412	663	30,941	
Tons of Ground Product	19,538	23,590	23,598	27,203	29,522	25,776	23,179	37,269	74,227	56,457	16,937	10,878	368,174	
Gallons of Oil Used	-					-	-	-	-	-	-	-	0	
Permit													**Actual Plant Emissions**	**PSEL Annual Maximum**
PM (Material Handling/Sizing)	1.28	1.25	0.84	1.20	0.44	0.89	0.87	1.71	1.73	1.67	0.44	0.83	13.15	
PM (Production)	1.20	1.06	1.06	1.34	1.38	1.86	1.84	2.34	3.69	2.71	1.02	0.54	20.13	
Kiln #3 PSD PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37.8
TSP Total	2.48	2.31	1.90	2.54	1.82	2.75	2.70	4.25	5.42	4.39	1.46	1.37	33.39	98
PM_{10} (Material Handling/Sizing)	0.48	0.47	0.32	0.45	0.16	0.33	0.33	0.64	0.65	0.63	0.16	0.31	4.94	
PM_{10} (Production)	0.66	0.59	0.59	0.74	0.77	1.03	1.02	1.41	2.05	1.51	0.57	0.30	11.23	
PM_{10} Total	1.15	1.06	0.91	1.19	0.93	1.37	1.34	2.05	2.70	2.13	0.73	0.61	16.17	42
SO2	0.04	0.05	0.05	0.06	0.06	0.05	0.05	0.08	0.16	0.12	0.04	0.02	0.77	39
Kiln #3 PSD SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.9
NOX	0.17	0.20	0.20	0.23	0.25	0.22	0.20	0.32	0.63	0.48	0.14	0.09	3.13	39
CO	0.29	0.35	0.35	0.41	0.44	0.39	0.35	0.56	1.11	0.85	0.25	0.16	5.52	99
VOC	0.13	0.16	0.16	0.18	0.19	0.17	0.15	0.25	0.49	0.37	0.11	0.07	2.43	39
Individual HAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9
Aggregate HAP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24

January 16, 2009

Department of Environmental Quality
Air Quality Division, Northwest Region
2020 SW Fourth Ave. Ste. 400
Portland, Oregon 97201-4987

Annual Report
Ash Grove Cement Company
Portland Terminal
3737 N Port Center Way
Portland, OR 97217-3565

Permit # 26-0146

Please find enclosed two copies of the Annual Report for ACDP Permit # 26-0146.

Annual Report

* Material throughput in tons may be found as an attachment titled; **2008 Throughput in Tons.**

* A summary of 12-month pollutant emissions determined each month may be found as an attachment titled; **2008 Emissions Summary.**

* The Portland Terminal did not experience a planned or unplanned excess emissions event during reporting year 2008.

* Summary of complaints relating to air quality received by permittee during reporting year 2008:

  During reporting year 2008 there were no complaints received by the Portland Terminal.

* Permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions;

  During reporting year 2008 Ash Grove Cement Company installed an FLS Airtech 4,000 cfm dust collector for head end (discharge) of the pipe conveyor.

  During reporting year 2008 Ash Grove Cement Company installed a rail unloading system at the North terminal.

  During reporting year 2008 Ash Grove Cement Company upgraded the dust collection system at the feed end of the pipe conveyor.

* Major maintenance performed on pollution control equipment;

611.BF2 Reclaim Dust Collector Fuller

Replace all bags

614.BF2 Unloader Dust Collector Fuller

Replace all bags

614.BF1 Ship Unloader Dust Collector

Replace all bags

AGC0011908

2008 Throughput in Tons

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January Throughput	February Throughput	March Throughput	April Throughput	May Throughput	June Throughput	July Throughput	August Throughput	September Throughput	October Throughput	November Throughput	December Throughput	Total 2008 Throughput
614.BF1	Ship Unloader DC	41,535	0	0	38,330	0	0	41,813	0	0	0	0	0	121678
614.BF2	Unloader DC, Fuller Pulse Jet	41,535	0	0	38,330	0	0	41,813	0	0	0	0	0	121678
614.BF345	Tank # 123 Bin Vent, Plenum Pulse	41,535	0	0	38,330	0	0	41,813	0	0	0	0	0	121678
611.BF1	Load Out Area DC, Fuller Pulse Jet	12,661	9,882	21,755	22,656	5349	11,663	12,712	10,913	11,778	6,814	9,925	1,069	137377
611.BF2	Reclaim DC, Fuller Pulse Jet	12,661	9,882	21,755	22,656	5349	11,663	12,712	10,913	11,778	6,814	9,925	1,069	137377
611.BF3	Reclaim DC 2, Fuller Pulse Jet	0	0	0	0	0	0	0	0	0	0	0	0	0
621.BF1	Rail Receiving & Pipe Conveyor	14,676	13,761	16,368	21,957	11,848	23,239	21,372	19,947	22,007	15,832	16,939	9,956	207922
621.BF2	Top of silos	14,676	13,761	16,368	21,957	11,848	23,239	21,372	19,947	22,007	15,832	16,939	9,956	207922
621.BF3	Lane 1 and Lane 2 Truck Loadout	13,792	17,397	15,368	17,738	19,034	19,955	22,352	19,228	21,991	19,683	12,131	9,591	208271
FU-1	Fugitive Emissions - hold of ship	41,535	0	0	38,330	0	0	41,813	0	0	0	0	0	121678

AGC0011909

2008 Emissions Summary
(Tons / Year)

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January Emissions	February Emissions	March Emissions	April Emissions	May Emissions	June Emissions	July Emissions	August Emissions	September Emissions	October Emissions	November Emissions	December Emissions	Total 2008 Emissions
814.BF1	Ship Unloader DC 0.00713	0.148	0	0	0.137	0	0	0.149	0	0	0	0	0	0.434
814.BF2	Unloader DC, Fuller Pulse Jet 0.00397	0.082	0	0	0.076	0	0	0.083	0	0	0	0	0	0.241
814.BF345	Tank # 123 Bin Vent, Plenum Pulse 0.00052	0.011	0	0	0.01	0	0	0.011	0	0	0	0	0	0.032
811.BF1	Load Out Area DC, Fuller Pulse Jet 0.00171	0.011	0.006	0.019	0.019	0.005	0.01	0.011	0.009	0.01	0.006	0.009	0.001	0.116
811.BF2	Reclaim DC, Fuller Pulse Jet 0.00469	0.030	0.023	0.051	0.053	0.013	0.027	0.03	0.025	0.028	0.016	0.023	0.003	0.323
811.BF3	Reclaim DC 2, Fuller Pulse Jet 0.00192	0.000	0	0	0	0	0	0	0	0	0	0	0	0
821.BF1	Rail Receiving & Pipe Conveyor 0.00077	0.006	0.005	0.006	0.009	0.005	0.009	0.008	0.006	0.009	0.006	0.007	0.004	0.082
821.BF2	Top of silos 0.00146	0.011	0.01	0.012	0.016	0.009	0.017	0.016	0.015	0.018	0.012	0.012	0.007	0.153
821.BF3	Lane 1 and Lane 2 Truck Loadout 0.00230	0.016	0.02	0.018	0.02	0.022	0.023	0.026	0.022	0.025	0.023	0.014	0.011	0.24
FU-1	Fugitive Emissions - hold of ship 0.0030	0.062	0	0	0.056	0	0	0.063	0	0	0	0	0	0.183
	Total Tons / Year PM (Point Source (PM-10) + fugitive (PM))													1.806

1/12/2009

February 8, 2010

Department of Environmental Quality
Northwest Region, Eastside Office
1550 NW Eastman Parkway, Suite 290
Gresham, Oregon 97030

Annual Report — Permit #26-1891
Ash Grove Cement Company
Rivergate Lime Plant

Please find enclosed two copies of the Annual Report for ACDP #26-1891.

The Rivergate Lime Plant was in compliance with Permit #26-1891 conditions for the year 2009.

Operating Parameters:

1. Annual plant production of Ground Product for 2009 was 284,103 tons.

2. Annual plant production of Hydrated Lime for 2009 was 22,833 tons.

3. Annual quantities and types of fuels for 2009:

Natural Gas/Ag-Lime	1,350 net MMBTU
Landfill Gas/Ag-Lime	41,600 net MMBTU

Annual Report

During 2009 there were no permanent changes made in plant process, production levels, and/or pollution control equipment that affected air contaminant emissions.

During 2009, there were no planned or unplanned excess emission events.

Summary of complaints relating to air quality received by permittee during the 2009 year:

There were no complaints received by the permittee during the 2009 year.

Major maintenance performed on pollution control equipment during 2009:

Dust Collector, 276.BF1, Ag Mill #4, Replaced all bags.

Dust Collector, 630.BF1, Ag Scale Load Out, Replaced all bags.

If you have any questions please call (503)247-5423

Glenn F. Dollar

Environmental, Health and Safety Manager
Ash Grove Cement Company

AGC0011912

Production	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	12 Month Rolling Average	
Material Received by Barge	38,376	12,816	25,680	12,768	12,840	12,576	25,636	38,256	38,268	37,771	12,662	-	267,649	
Material Received by Rail	3,586	2,693	3,086	2,094	2,693	3,211	3,892	4,795	3,895	4,192	2,997	3,304	40,438	
Tons Of Hydrate Produced	1,440	1,431	1,630	1,087	1,022	1,637	2,925	3,378	2,345	2,469	1,886	1,583	22,833	
Tons of Ag	2,724	2,235	2,883	10,028	6,583	3,314	4,133	13,456	29,624	17,537	4,485	2,710	99,712	
Tons of Flour	7,731	10,907	13,817	12,792	11,145	14,811	15,855	16,410	18,162	20,747	9,049	7,888	159,314	
Tons of Dolomite, Ground	348	949	729	2,609	1,477	1,502	454	2,511	6,428	4,166	2,406	1,498	25,077	
Tons of Ground Product	10,803	14,091	17,429	25,429	19,205	19,627	20,442	32,377	54,214	42,450	15,940	12,096	284,103	

Permit													Actual Plant Emissions	PSEL Annual Maximum
PM (Material Handling/Sizing)	2.29	0.77	1.54	0.77	0.78	0.76	1.54	2.29	2.28	2.26	0.77	0.02	16.05	
PM (Production)	0.62	0.71	0.85	0.95	0.77	0.91	1.22	1.66	2.04	1.74	0.87	0.69	13.05	
TSP Total	2.91	1.49	2.39	1.72	1.54	1.68	2.76	3.95	4.32	3.99	1.63	0.71	29.10	98
PM_{10} (Material Handling/Sizing)	0.83	0.28	0.56	0.28	0.28	0.28	0.56	0.83	0.83	0.82	0.28	0.00	5.82	
PM_{10} (Production)	0.34	0.39	0.47	0.53	0.42	0.50	0.68	0.92	1.13	0.96	0.48	0.38	7.20	
PM_{10} Total	1.17	0.67	1.03	0.80	0.70	0.78	1.23	1.75	1.96	1.78	0.75	0.39	13.02	42
SO2	0.02	0.03	0.03	0.05	0.04	0.04	0.04	0.06	0.11	0.08	0.03	0.02	0.57	39
NOX	0.09	0.12	0.15	0.22	0.16	0.17	0.17	0.28	0.46	0.36	0.14	0.10	2.41	39
CO	0.16	0.21	0.26	0.38	0.29	0.29	0.31	0.49	0.81	0.64	0.24	0.18	4.26	99
VOC	0.07	0.09	0.11	0.17	0.12	0.13	0.13	0.21	0.35	0.28	0.10	0.08	1.85	39
													Total MMBTU	
Natural Gas MMBTU	205	104	73	85	0	0	36	14	18	18	114	683	1,350	
Land Fill Gas MMBTU	2,950	3,946	2,448	4,013	2,679	2,486	2,016	3,837	7,065	6,029	2,978	1,153	41,600	

January 22, 2010

Department of Environmental Quality
Air Quality Division, Northwest Region
2020 SW Fourth Ave. Ste. 400
Portland, Oregon 97201-4987

Annual Report
Ash Grove Cement Company
Portland Terminal
3737 N Port Center Way
Portland, OR 97217-3565

Permit # 26-0146

Please find enclosed two copies of the Annual Report for ACDP Permit # 26-0146.

Annual Report

* Material throughput in tons may be found as an attachment titled; **2009 Throughput in Tons**.

* A summary of 12-month pollutant emissions determined each month may be found as an attachment titled; **2009 Emissions Summary**.

* The Portland Terminal did not experience a planned or unplanned excess emissions event during reporting year 2009.

* Summary of complaints relating to air quality received by permittee during reporting year 2009:

  During reporting year 2009 there were no complaints received by the Portland Terminal.

* Permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions;

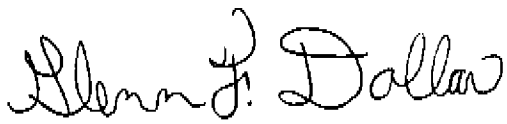
  During reporting year 2009 no changes were made in plant process, production levels, and pollution control equipment.

* Major maintenance performed on pollution control equipment;

  During reporting year 2009 no major maintenance projects were performed on pollution control equipment.

If you have any questions please call me at (503)247-5423

Glenn F. Dollar



Environmental Health and Safety Manager
Ash Grove Cement Company

AGC0011915

2009 Throughput in Tons

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 09 Throughput	February 09 Throughput	March 09 Throughput	April 09 Throughput	May 09 Throughput	June 09 Throughput	July 09 Throughput	August 09 Throughput	September 09 Throughput	October 09 Throughput	November 09 Throughput	December 09 Throughput	Total Throughput
614.BF1	Ship Unloader DC	0	0	0	0	16,204	0	0	0	0	0	0	0	16204
614.BF2	Unloader DC, Fuller Pulse Jet	0	3,193	6,832	0	16,204	0	0	0	0	0	0	0	26229
614.BF345	Tank # 123 Bin Vent, Plenum Pulse	0	3,193	6,832	0	16,204	0	0	0	0	0	0	0	26229
611.BF1	Load Out Area DC, Fuller Pulse Jet	1,733	0	0	0	353	200	0	0	0	0	0	0	2286
611.BF2	Reclaim DC, Fuller Pulse Jet	1,733	0	0	0	353	200	0	0	0	0	0	0	2286
611.BF3	Reclaim DC 2, Pipe Conv. North End	0	3,724	0	2,740	0	1,235	0	0	0	0	0	0	7699
611.BF6	Pipe Conveyor, Head End Discharge	0	3,724	0	2,740	0	1,235	0	0	0	0	0	0	7699
621.BF1	Rail Receiving South	16,877	7,696	12,622	14,900	10,085	14,747	16,204	14,234	20,102	15,956	9,455	10,078	164956
621.BF2	Top of silos South	16,877	7,696	12,622	14,900	10,085	14,747	16,204	14,234	20,102	15,956	9,455	10,078	164956
621.BF3	Lane 1 and Lane 2 Truck Loadout	11,406	10,417	11,161	12,093	11,289	16,578	15,986	16,014	17,079	14,945	9,736	13,396	162100
FU-1	Fugitive Emissions - hold of ship	0	0	0	0	16,204	0	0	0	0	0	0	0	16204

AGC0011916

2009 Throughput in Tons

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 09 Throughput	February 09 Throughput	March 09 Throughput	April 09 Throughput	May 09 Throughput	June 09 Throughput	July 09 Throughput	August 09 Throughput	September 09 Throughput	October 09 Throughput	November 09 Throughput	December 09 Throughput	Total Throughput
614.BF1	Ship Unloader DC	0	0	0	0	16,204	0	0	0	0	0	0	0	16204
614.BF2	Unloader DC, Fuller Pulse Jet	0	3,193	6,632	0	16,204	0	0	0	0	0	0	0	26029
614.BF345	Tank # 123 Bin Vent, Plenum Pulse	0	3,193	6,632	0	16,204	0	0	0	0	0	0	0	26029
611.BF1	Load Out Area DC, Fuller Pulse Jet	1,733	0	0	0	353	200	0	0	0	0	0	0	2286
611.BF2	Reclaim DC, Fuller Pulse Jet	1,733	0	0	0	353	200	0	0	0	0	0	0	2286
611.BF3	Reclaim DC 2, Pipe Conv. North End	0	3,724	0	2,740	0	1,235	0	0	0	0	0	0	7699
611.BF6	Pipe Conveyor, Head End Discharge	0	3,724	0	2,740	0	1,235	0	0	0	0	0	0	7699
621.BF1	Rail Receiving South	18,877	7,696	12,622	14,900	10,085	14,747	16,204	14,234	20,102	15,958	9,455	10,076	164956
621.BF2	Top of silos South	18,877	7,696	12,622	14,900	10,085	14,747	16,204	14,234	20,102	15,958	9,455	10,076	164956
621.BF3	Lane 1 and Lane 2 Truck Loadout	11,406	10,417	11,161	12,093	11,289	18,578	16,986	16,014	17,079	14,945	9,736	13,396	162100
FU-1	Fugitive Emissions - hold of ship	0	0	0	0	16,204	0	0	0	0	0	0	0	16204

January 25, 2011

Department of Environmental Quality
Northwest Region, Eastside Office
1550 NW Eastman Parkway, Suite 290
Gresham, Oregon 97030

Annual Report: Permit #26-1891
Ash Grove Cement Company
Rivergate Lime Plant

The Rivergate Lime Plant was in compliance with Permit #26-1891 conditions for the 2010 reporting year.

Operating Parameters:

1. Annual plant production of Ground Product for 2010 was 329,960 tons.

2. Annual plant production of Hydrated Lime for 2010 was 24,233 tons.

3. Annual quantities and types of fuel for 2010:

Natural Gas/Ag-Lime	773 net MMBTU
Landfill Gas/Ag-Lime	46,471 net MMBTU

Annual Report

During 2010 there were no permanent changes made in plant process, production levels, and/or pollution control equipment that affected air contaminant emissions.

During 2010, there were no planned or unplanned excess emission events.

Summary of complaints relating to air quality received by permittee during the 2010 year:

There were no complaints received by the permittee during the 2010 year.

Major maintenance performed on pollution control equipment during 2010:

Dust Collector 276.BF1, Ag Mill #4 - Replaced all bags

Dust Collector 520.BF1, Hydrate wet/dry - Replaced all bags

Dust Collector 610.BF1, Hydrate truck load out - Replaced all bags

If you have any questions please call (503)247-5423

Glenn F. Dollar

Environmental, Health and Safety Manager
Ash Grove Cement Company

Production	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	12 Month Rolling Average
Material Received by Barge	38,619	49,789	12,736	25,141	25,074	25,062	37,405	76,138	50,893	37,641	37,385	25,027	440,910
Material Received by Rail	2,600	3,198	2,795	2,597	2,798	4,596	4,097	4,150	3,302	2,894	2,497	2,499	38,023
Tons Of Hydrate Produced	1,454	1,361	1,237	1,212	1,174	1,740	2,381	4,333	3,085	2,669	1,953	1,634	24,233
Tons of Ag	1,370	2,678	5,184	5,383	6,615	3,507	3,837	7,063	32,816	21,914	6,970	1,170	98,507
Tons of Flour	11,764	18,418	19,015	17,327	16,270	21,013	17,749	18,187	18,583	19,683	15,940	14,537	208,486
Tons of Dolomite, Ground	664	997	1,284	2,500	1,889	697	824	1,674	7,465	3,418	1,534	21	22,967
Tons of Ground Product	13,798	22,093	25,483	25,210	24,774	25,217	22,410	26,924	58,864	45,015	24,444	15,728	329,960

Permit													Actual Plant Emissions	PSEL Annual Maximum
PM (Material Handling/Sizing)	2.30	2.96	0.77	1.50	1.50	1.51	2.23	4.52	3.02	2.24	2.22	1.49	26.26	
PM (Production)	0.71	0.92	0.99	0.98	0.96	1.09	1.16	1.72	2.34	1.86	1.12	0.80	14.64	
TSP Total	3.01	3.88	1.76	2.48	2.45	2.60	3.39	6.24	5.36	4.10	3.34	2.30	40.90	98
PM_{10} (Material Handling/Sizing)	0.83	1.08	0.28	0.54	0.54	0.55	0.81	1.64	1.10	0.81	0.81	0.54	9.54	
PM_{10} (Production)	0.39	0.51	0.55	0.54	0.53	0.60	0.64	0.95	1.29	1.02	0.62	0.44	8.08	
PM_{10} Total	1.23	1.58	0.82	1.08	1.07	1.15	1.45	2.59	2.39	1.84	1.43	0.99	17.62	42
SO2	0.03	0.04	0.05	0.05	0.05	0.05	0.04	0.05	0.12	0.09	0.05	0.03	0.66	39
NOX	0.12	0.19	0.22	0.21	0.21	0.21	0.19	0.23	0.50	0.38	0.21	0.13	2.80	39
CO	0.21	0.33	0.38	0.38	0.37	0.38	0.34	0.40	0.88	0.68	0.37	0.24	4.95	99
VOC	0.09	0.14	0.17	0.16	0.16	0.16	0.15	0.18	0.38	0.29	0.16	0.10	2.14	39
													Total MMBTU	
Natural Gas MMBTU	0	82	36	36	36	46	82	455	0	0	0	0	773	
Land Fill Gas MMBTU	3,015	4,127	4,432	3,637	3,784	3,245	2,378	2,578	7,520	5,465	3,529	2,760	46,470	

2010 Monthly Visible Emissions Monitoring

Name	Actvity type	Activity result	Date and time	Employee name	Activity done
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector, (top of AG Silos), Johnson March	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector, (#1 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes

2010 Monthly Visible Emissions Monitoring

Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector, (#2 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector, (#3 AG Mill), Pulse-aire, Micropul	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector, (#4AG Mill), Pulse-aire, Micropul	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes

2010 Monthly Visible Emissions Monitoring

Dust Collector,(hyd wet/dry)	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,(hyd wet/dry)	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection		1/4/2010 12:15	NEVELS JEFFERY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,(hydrate/sacking),Donaldson Torit	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	Not OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,BHA, (top hydrate bin)	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
		08/27/2010 Dust collector shut down and all bags (16) replaced.			
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes

2010 Monthly Visible Emissions Monitoring

Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG scale loadout)	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,IAC,(AG Flour scale loadout)	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Dust Collector, (for AG Mill Screw DC), Ultra Jet,Whee	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes

2010 Monthly Visible Emissions Monitoring

Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	3/31/2010	COOPER RAMON	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	4/23/2010	WEBER PHILIP	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	5/24/2010	NEVELS JEFFERY	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	7/28/2010	NEVELS JEFFERY	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes
Dust Collector,Pulse Jet/bin vent,Torit,(Bin #9)	PM Inspection	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	1/19/2010 13:34	NEVELS JEFFERY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	2/26/2010 9:10	DORNBUSCH ANDREV	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	3/31/2010	COOPER RAMON	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	4/23/2010	WEBER PHILIP	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	5/24/2010	NEVELS JEFFERY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	6/30/2010 14:15	NEVELS JEFFERY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	7/28/2010	NEVELS JEFFERY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	8/27/2010 12:25	DORNBUSCH ANDREV	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	9/27/2010 8:02	DORNBUSCH ANDREV	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	10/29/2010 13:02	NEVELS JEFFERY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	12/28/2010 14:04	KEPLEY LARRY	Yes
Collector,Dust,(hyd quicklime feed bin/pebble super sa	Lubrication	OK	11/30/2010 11:54	DORNBUSCH ANDREV	Yes

January 14, 2011

Department of Environmental Quality
Attn: Tina Leppaluoto
Northwest Region-Gresham Office
1550 NW Eastman Parkway, Suite 290
Gresham, OR 97030-3832

Annual Report: Permit # 26-0146
Ash Grove Cement Company
Portland Terminal
3737 N Port Center Way
Portland, OR 97217-3565

Annual Report

* Material throughput in tons may be found as an attachment titled; **2010 Throughput in Tons.**

* A summary of 12-month pollutant emissions determined each month may be found as an attachment titled; **2010 Emissions Summary.**

* The Portland Terminal did not experience a planned or unplanned excess emissions event during reporting year 2010.

* Summary of complaints relating to air quality received by permittee during reporting year 2010:

  During reporting year 2010 there were no complaints received by the Portland Terminal.

* Permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions;

  During reporting year 2010 no changes were made in plant process, production levels, and pollution control equipment.

* Major maintenance performed on pollution control equipment;

  During reporting year 2010 the following major maintenance projects were performed on pollution control equipment;

  611.BF1 Rail Loadout Dust Collector 100% (96) Bag Replacement

611.BF2 Reclaim Dust Collector 100% (196) Bag Replacement

If you have any questions please call (503)247-5423

Glenn F. Dollar

Glenn F Dollar

Environmental Health and Safety Manager
Ash Grove Cement Company

AGC0011927

2010 Throughput in Tons

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 10 Throughput	February 10 Throughput	March 10 Throughput	April 10 Throughput	May 10 Throughput	June 10 Throughput	July 10 Throughput	August 10 Throughput	September 10 Throughput	October 10 Throughput	November 10 Throughput	December 10 Throughput	Total Throughput
614.BF1	Ship Unloader DC	0	0	0	0	0	0	0	0	0	0	0	0	0
614.BF2	Unloader DC, Fuller Pulse Jet	0	0	0	0	0	0	0	0	0	0	0	0	0
614.BF345	Tank # 123 Bin Vent, Plenum Pulse	0	0	0	0	0	0	0	0	0	0	0	0	0
611.BF1	Load Out Area DC, Fuller Pulse Jet	0	0	693	0	6610	0	0	0	0	0	0	0	7303
611.BF2	Reclaim DC, Fuller Pulse Jet	0	0	693	0	6610	0	0	0	0	0	0	0	7303
611.BF3	Reclaim DC 2, Pipe Conv. North End	0	0	0	0	0	0	2,006	0	0	0	3384	0	5390
611.BF8	Pipe Conveyor, Head End Discharge	0	0	0	0	0	0	2,006	0	0	0	3384	0	5390
621.BF1	Rail Receiving South	9,166	11,537	12,190	9,570	18,799	10,555	13,648	14,565	12,035	13,105	13,419	12,006	150595
621.BF2	Top of silos South	9,166	11,537	12,190	9,570	18,799	10,555	13,648	14,565	12,035	13,105	13,419	12,006	150595
621.BF3	Lane 1 and Lane 2 Truck Loadout	9,383	12,179	13,351	12,892	12,731	13,968	13,900	13,571	13,855	12,644	9,793	7,928	142395
FU-1	Fugitive Emissions - hold of ship	0	0	0	0	0	0	0	0	0	0	0	0	0

2010 Emissions Summary
(Tons / Year)

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 10 Emissions	February 10 Emissions	March 10 Emissions	April 10 Emissions	May 10 Emissions	June 10 Emissions	July 10 Emissions	August 10 Emissions	September 10 Emissions	October 10 Emissions	November 10 Emissions	December 10 Emissions	12 Month Rolling Calculations
614.BF1	Ship Unloader DC 0.00713	0	0	0	0	0	0	0	0	0	0	0	0	0
614.BF2	Unloader DC, Fuller Pulse Jet 0.00397	0	0	0	0	0	0	0	0	0	0	0	0	0
614.BF345	Tank # 123 Bin Vent, Plenum Pulse 0.00052	0	0	0	0	0	0	0	0	0	0	0	0	0
611.BF1	Load Out Area DC, Fuller Pulse Jet 0.00171	0.000	0	0	0	0.008	0	0	0	0	0	0	0	0.008
611.BF2	Reclaim DC, Fuller Pulse Jet 0.00459	0.000	0	0.002	0	0.016	0	0	0	0	0	0	0	0.018
611.BF3	Reclaim DC 2, Pipe Con N End Fuller Pulse Jet 0.00242	0	0	0	0	0	0	0	0	0	0	0.004	0	0.006
611.BF6	Pile Conveyor, South Discharge 0.00086	0	0	0	0	0	0	0.001	0	0	0	0.002	0	0.003
621.BF1	Rail Receiving 0.00077	0.004	0.004	0.005	0.004	0.005	0.004	0.006	0.006	0.005	0.005	0.005	0.005	0.057
621.BF2	Top of silos 0.00146	0.007	0.008	0.009	0.007	0.014	0.008	0.01	0.011	0.009	0.01	0.01	0.009	0.112
621.BF3	Lane 1 and Lane 2 Truck Loadout 0.00230	0.011	0.014	0.015	0.015	0.015	0.016	0.016	0.016	0.016	0.015	0.011	0.009	0.169
FU-1	Fugitive Emissions - hold of ship 0.0030	0.000	0	0	0	0	0	0	0	0	0	0	0	0
	Total Tons / Year PM (Point Source (PM-10) + fugitive (PM))													0.371

AGC0011928

January 12, 2012

Department of Environmental Quality
NWR-ESO/AQ
1550 NW Eastman Parkway, Suite 290
Gresham, Oregon 97030

Annual Report: Permit #26-1891
Ash Grove Cement Company
Rivergate Lime Plant

The Rivergate Lime Plant was in compliance with Permit #26-1891 conditions for the 2011 reporting year.

Operating Parameters:

1. Annual plant production of Ground Product for 2011 was 369,900 tons.
2. Annual plant production of Hydrated Lime for 2011 was 26,848 tons.
3. Annual quantities and types of fuel for 2011:

Natural Gas/Ag-Lime	13,497 net MMBTU
Landfill Gas/Ag-Lime	38,567 net MMBTU

Annual Report

During 2011 there were no permanent changes made in plant process, production levels, and/or pollution control equipment that affected air contaminant emissions.

During 2011, there were no planned or unplanned excess emission events.

Summary of complaints relating to air quality received by permittee during the 2011 year:

There were no complaints received by the permittee during the 2011 year.

Major maintenance performed on pollution control equipment during 2011:

Dust Collector 630.BF1, Ag scale load out - Replaced all bags

If you have any questions please call (503)247-5424

Gary Wright

Portland Operations Manager
Ash Grove Cement Company

AGC0011931

Production	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	12 Month Rolling Average
Material Received by Barge	12,672	62,200	25,335	12,501	50,670	25,845	12,880	12,882	51,071	38,303	25,748	37,658	**367,765**
Material Received by Rail	2,895	3,000	3,001	3,289	3,900	5,098	4,400	4,699	4,294	3,699	3,088	2,987	**44,350**
Tons Of Hydrate Produced	1,666	1,930	2,065	2,240	2,246	2,579	2,555	3,879	3,046	1,393	1,598	1,651	**26,848**
Tons of Ag	1,886	3,304	1,077	4,169	8,355	3,276	2,546	10,880	38,653	29,553	8,170	5,779	**117,648**
Tons of Flour	15,519	18,224	23,987	19,585	18,255	21,188	18,474	21,904	16,589	18,056	14,444	15,808	**222,033**
Tons of Dolomite, Ground	1,109	1,673	418	1,343	2,291	716	695	2,983	6,771	7,047	3,596	1,578	**30,220**
Tons of Ground Product	18,513	23,201	25,482	25,097	28,901	25,180	21,715	35,767	62,013	54,656	26,210	23,165	**369,900**

Permit													**Actual Plant Emissions**	PSEL Annual Maximum
PM (Material Handling/Sizing)	0.77	3.69	1.51	0.76	3.01	1.56	0.79	0.79	3.04	2.28	1.54	2.24	**21.99**	
PM (Production)	0.89	1.08	1.17	1.20	1.31	1.28	1.18	1.87	2.42	1.84	1.09	1.02	**16.34**	
TSP Total	1.66	4.77	2.69	1.96	4.32	2.84	1.97	2.66	5.46	4.12	2.63	3.26	**38.33**	98
PM_{10} (Material Handling/Sizing)	0.28	1.34	0.55	0.27	1.10	0.56	0.28	0.28	1.10	0.83	0.56	0.81	**7.97**	
PM_{10} (Production)	0.49	0.60	0.65	0.66	0.72	0.71	0.65	1.03	1.33	1.02	0.60	0.56	**9.02**	
PM_{10} Total	0.77	1.94	1.20	0.94	1.82	1.27	0.93	1.31	2.44	1.85	1.16	1.38	**17.00**	42
SO2	0.04	0.05	0.05	0.05	0.06	0.05	0.04	0.07	0.12	0.11	0.05	0.05	**0.74**	39
NOX	0.16	0.20	0.22	0.21	0.25	0.21	0.18	0.30	0.53	0.46	0.22	0.20	**3.14**	39
CO	0.28	0.35	0.38	0.38	0.43	0.38	0.33	0.54	0.93	0.82	0.39	0.35	**5.55**	99
VOC	0.12	0.15	0.17	0.16	0.19	0.16	0.14	0.23	0.40	0.36	0.17	0.15	**2.40**	39
													Total MMBTU	
Natural Gas MMBTU	150	710	273	3,176	2,570	223	79	933	1,115	3,731	100	437	**13,497**	
Land Fill Gas MMBTU	2,730	3,354	3,256	1,345	1,269	2,861	2,305	4,015	6,097	4,240	3,751	3,344	**38,567**	
Gas Received to Storage Tank					0	0	0	0	0	0	0	0		

AGC0011932

2011 Monthly DC checks record

Entity #	Name	Activty	Actvitiy type	Result	Date and time	Employee name	Completed
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
240.BF1	Dust Collector, (top of AG Silos)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
246.BF1	Dust Collector, (#1 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes

256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
256.BF1	Dust Collector, (#2 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
266.BF1	Dust Collector, (#3 AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
276.BF1	Dust Collector, (#4AG Mill)	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes

520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
520.BF1	Dust Collector, hydrate	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
520.BF2	Dust Collector,hyd sack	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
610.BF1	Dust Collector, top hyd bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes

630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
630.BF1	Dust Collector,AG scale loadout	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
630.BF2	Dust Collector,West AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
630.BF3	Dust Collector,East AG scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes

631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
631.BF1	Dust Collector, AG flour scale	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
63P.BF1	Dust Collector, AG Mill Screw	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
640.BF2	Dust Collector,Bin #9	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes
640.BF2	Dust Collector,Bin #10	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
640.BF2	Dust Collector,Bin #11	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
640.BF2	Dust Collector,Bin #12	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
640.BF2	Dust Collector,Bin #13	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
640.BF2	Dust Collector,Bin #14	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
640.BF2	Dust Collector,Bin #15	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
640.BF2	Dust Collector,Bin #16	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
640.BF2	Dust Collector,Bin #17	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
640.BF2	Dust Collector,Bin #18	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
640.BF2	Dust Collector,Bin #19	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
640.BF2	Dust Collector,Bin #20	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	12/13/2011 12:12	COOPER RAMON	Yes

642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	11/30/2011 9:25	COOPER RAMON	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	10/31/2011 8:05	NEVELS JEFFERY	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	9/30/2011 7:45	DORNBUSCH ANDREW	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	8/31/2011 10:06	NEVELS JEFFERY	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	7/29/2011 12:19	NEVELS JEFFERY	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	6/28/2011 7:37	WEBER PHILIP	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	5/31/2011 7:37	DORNBUSCH ANDREW	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	4/25/2011 9:10	NEVELS JEFFERY	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	3/30/2011 7:58	DORNBUSCH ANDREW	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	2/25/2011 11:58	NEVELS JEFFERY	Yes
642.BF1	Dust Collector,hyd quk bin	Visual inspection, 1 minute, report any emissions.	PM Inspection	OK	1/31/2011 13:31	DORNBUSCH ANDREW	Yes

AGC0011937

January 04, 2012

Department of Environmental Quality
Attn: Tina Leppaluoto
Northwest Region-Gresham Office
1550 NW Eastman Parkway, Suite 290
Gresham, OR 97030-3832

Annual Report: Permit # 26-0146
Ash Grove Cement Company
Portland Terminal
3737 N Port Center Way
Portland, OR 97217-3565

Annual Report

* Material throughput in tons may be found as an attachment labeled; **2011 Throughput in Tons**.

* A summary of 12-month pollutant emissions determined each month may be found as an attachment labeled; **2011 Emissions Summary**.

* The Portland Terminal did not experience a planned or unplanned excess emissions event during reporting year 2011.

* Summary of complaints relating to air quality received by permittee during reporting year 2011:

  During reporting year 2011 there were no complaints received by the Portland Terminal.

* Permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions;

  During reporting year 2011 no changes were made in plant process, production levels, and pollution control equipment.

* Major maintenance performed on pollution control equipment;

  During reporting year 2011 the following major maintenance projects were performed on pollution control equipment;

  614.BF1 Ship Unloading Dust Collector -100% (192) Bag Replacement

614.BF2 Conveyance to Storage Tanks Dust Collector -100% (372) Bag Replacement

If you have any questions please call (503)247-5423

Glenn F. Dollar

Environmental Health and Safety Manager
Ash Grove Cement Company

AGC0011940

2011 Throughput in Tons

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 11 Throughput	February 11 Throughput	March 11 Throughput	April 11 Throughput	May 11 Throughput	June 11 Throughput	July 11 Throughput	August 11 Throughput	Sept 11 Throughput	October 11 Throughput	November 11 Throughput	December 11 Throughput	Total Throughput
614.BF1	Ship Unloading	0	0	0	0	0	0	0	23,135	0	0	0	0	23,135
614.BF2	Conveyance to Storage Tanks	0	0	0	0	0	0	0	23,135	0	0	0	0	23,135
614.BF3-5	North Terminal Storage Tanks	0	0	0	0	0	0	0	23,135	0	0	0	0	23,135
611.BF1	Railcar Loading	0	0	1,851	0	0	0	0	1,253	7,883	0	0	0	10,987
611.BF2	Reclaim airlift dust collector	0	0	1,851	0	0	0	0	1,253	7,883	0	0	0	10,987
611.BF3	Pipe Conveyor Receiving	0	0	0	0	3194	1,230	347	1,975	640	3,257	0	0	10,643
621.BF1	Railcar Unloading	1,969	7,004	12,031	10,180	14,259	16,983	12,758	15,170	16,462	13,022	9,349	9,975	139,162
621.BF2	South Terminal Storage Silos	1,969	7,004	12,031	10,180	17,453	18,193	13,105	17,145	17,102	16,279	9,349	9,975	149,785
621.BF3	Truck Load-out	8,378	8,815	13,385	12,570	15,028	18,615	16,697	19,327	16,532	13,658	10,848	9,715	163,568
621.BF4	Pipe Conveyor Discharge	0	0	0	0	3194	1,230	347	1,975	640	3,257	0	0	10,643
FU-1	Fugitive Emissions-hold of ship	0	0	0	0	0	0	0	23,135	0	0	0	0	23,135

AGC0011941

2011 Emissions Summary
(Tons / Year)

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 11 Emissions	February 11 Emissions	March 11 Emissions	April 11 Emisions	May 11 Emissions	June 11 Emissions	July 11 Emissions	August 11 Emissions	September 11 Emissions	October 11 Emissions	November 11 Emisions	December 11 Emissions	12 Month Rolling Calculations
614.BF1	Ship Unloading 0.00497	0	0	0	0	0	0	0	0.058	0	0	0	0	0.058
614.BF2	Conveyance to Storage Tanks 0.00243	0	0	0	0	0	0	0	0.028	0	0	0	0	0.028
614.BF3-5	North Terminal Storage Tanks 0.00032	0	0	0	0	0	0	0	0.004	0	0	0	0	0.004
611.BF1	Railcar Loading 0.00171	0	0	0.002	0	0	0	0	0.001	0.007	0	0	0	0.01
611.BF2	Reclaim airlift dust collector 0.00469	0	0	0.004	0	0	0	0	0.003	0.019	0	0	0	0.026
611.BF3	Pipe Conveyor Receiving 0.00135	0	0	0	0	0.004	0.002	0	0.001	0	0.002	0	0	0.011
621.BF1	Railcar Unloading 0.00043	0.001	0.003	0.005	0.004	0.006	0.007	0.005	0.003	0.004	0.003	0.002	0.002	0.045
621.BF2	South Terminal Storage Silos 0.00081	0.001	0.005	0.009	0.007	0.013	0.013	0.01	0.007	0.007	0.007	0.004	0.004	0.087
621.BF3	Truck Load-out 0.00129	0.01	0.01	0.015	0.015	0.017	0.021	0.019	0.013	0.011	0.009	0.007	0.006	0.153
621.BF4	Pipe Conveyor Discharge 0.00086	0	0	0	0	0.001	0.001	0	0.001	0	0.001	0	0	0.004
FU-1	Fugitive Emissions-hold of ship 0.0030	0	0	0	0	0	0	0	0.035	0	0	0	0	0.035
	Total Tons / Year PM (Point Source (PM-10) + fugitive (PM))													0.461

January 18, 2013

Department of Environmental Quality
NWR-ESO/AQ
2020 SW 4th Avenue, Suite 400
Portland, Oregon 97201-4987

Annual Report: Permit #26-1891
Ash Grove Cement Company
Rivergate Lime Plant

The Rivergate Lime Plant was in compliance with Permit #26-1891 conditions for the 2012 reporting year.

Annual Report

1. Operating Parameters:

   a. Annual plant production of ground products during 2012 was 381,565 tons.

      Annual plant production of hydrated lime during 2012 was 26,234 tons.

   b. Annual amount and type of fuel used during 2012 to produce all ground products:

Natural Gas	26,390 net MMBTU
Landfill Gas	11,078 net MMBTU

   c. The amount of material received by barge during reporting year 2012:

      356,715 tons

      The amount of material received by rail during reporting year 2012:

      46,498 tons

   d. The calculated, rolling emission rates for each criteria pollutant for each month during reporting year 2012 may be found as an attachment labeled **2012 Rolling Emission Rates.**

2. Records of all planned and unplanned excess emissions events:

   During 2012 there were no planned or unplanned excess emission events.

3. Summary of complaints relating to air quality received during reporting year 2012:

   There were no complaints relating to air quality received by the permittee during the 2012 reporting year.

4. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions:

   During 2012 there were no permanent changes made in plant process, production levels, and/or pollution control equipment that affected air contaminant emissions.

5. Major maintenance performed on pollution control equipment during reporting year 2011:

   Dust Collector 630.BF1, Ag scale load out - Replaced all bags

If you have any questions please call Glenn Dollar (503)247-5424.

Gary Wright

Portland Operations Manager
Ash Grove Cement Company

AGC0011944

2012
Rolling Emission Rates

Production	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	**12 Month Rolling Average**
Material Received by Barge	12,790	50,931	12,853	12,875	36,195	39,972	50,934	25,676	38,664	37,896	25,308	12,621	**356,715**
Material Received by Rail	3,182	3,139	3,075	3,663	4,171	4,475	4,147	5,405	3,651	4,065	3,565	3,960	**46,498**
Tons Of Hydrate Produced	1,354	1,633	1,725	1,950	2,854	2,278	2,740	4,353	2,470	1,771	1,930	1,176	**26,234**
Tons of Ag	2,143	3,598	2,376	5,147	11,376	4,563	2,501	18,144	43,876	35,965	9,440	926	**140,055**
Tons of Flour	14,804	20,834	20,894	20,283	23,260	20,625	19,644	17,054	14,589	17,661	11,731	8,535	**209,914**
Tons of Dolomite, Ground	295	781	538	1,895	2,874	1,762	527	4,072	8,706	7,124	2,326	697	**31,597**
Tons of Ground Product	17,242	25,213	23,808	27,325	37,510	26,950	22,672	39,270	67,170	60,750	23,497	10,158	**381,565**

Permit													**Actual Plant Emissions**	PSEL Annual Maximum
PM (Material Handling/Sizing)	0.78	3.03	0.78	0.78	2.16	2.39	3.03	1.55	2.30	2.26	1.52	0.77	**21.35**	
PM (Production)	0.78	1.07	1.05	1.20	1.69	1.26	1.25	2.07	2.43	2.10	1.09	0.55	**16.53**	
TSP Total	1.56	4.10	1.83	1.98	3.85	3.65	4.28	3.62	4.74	4.36	2.60	1.32	**37.88**	98
PM_{10} (Material Handling/Sizing)	0.28	1.10	0.28	0.28	0.78	0.87	1.10	0.56	0.84	0.82	0.55	0.28	**7.74**	
PM_{10} (Production)	0.43	0.59	0.58	0.66	0.93	0.70	0.69	1.14	1.34	1.16	0.60	0.30	**9.13**	
PM_{10} Total	0.71	1.69	0.86	0.94	1.72	1.56	1.79	1.70	2.18	1.98	1.15	0.58	**16.87**	42
SO2	0.03	0.05	0.05	0.05	0.08	0.05	0.05	0.08	0.13	0.12	0.05	0.02	**0.76**	39
NOX	0.15	0.21	0.20	0.23	0.32	0.23	0.19	0.33	0.57	0.52	0.20	0.09	**3.24**	39
CO	0.26	0.38	0.36	0.41	0.56	0.40	0.34	0.59	1.01	0.91	0.35	0.15	**5.72**	99
VOC	0.11	0.16	0.15	0.18	0.24	0.18	0.15	0.26	0.44	0.39	0.15	0.07	**2.48**	39
													Total MMBTU	
Natural Gas MMBTU	696	437	1,092	1,594	3,640	4,203	2,252	3,990	3,822	0	0	4,664	**26,390**	
Land Fill Gas MMBTU	2,209	3,344	3,411	2,114	0	0	0	0	0	0	0	0	**11,078**	
Gasoline Throughput 2012	197	262	242	272.4	251.9	176	218.7	244	175.5	236.7	235.7	185.2	**2,697**	

January 07, 2013

Department of Environmental Quality
Attn: Patricia Huback, Permit Coordinator
Northwest Region, Portland Office
2020 SW 4th Ave., Suite 400
Portland, OR 97201

Annual Report: Permit # 26-0146
Ash Grove Cement Company
Portland Terminal
3737 N Port Center Way
Portland, OR 97217-3565

Annual Report

* Material throughput in tons may be found as an attachment labeled; **2012 Throughput in Tons**.

* A summary of 12-month pollutant emissions determined each month may be found as an attachment labeled; **2012 Emissions Summary**.

* The Portland Terminal did not experience a planned or unplanned excess emissions event during reporting year 2012.

* Summary of complaints relating to air quality received by permittee during reporting year 2012:

  During reporting year 2012 there were no complaints received by the Portland Terminal.

* Permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions;

  During reporting year 2012 no changes were made in plant process, production levels, or pollution control equipment.

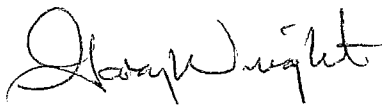
* Major maintenance performed on pollution control equipment;

  During reporting year 2012 the following major maintenance projects were performed on pollution control equipment;

  621.BF3 Truck Load-out Dust Collector – 100% (64) Bag replacement

If you have any questions please call Glenn Dollar at (503)247-5423.

Regards,



Gary Wright
Portland Operations Manager
Ash Grove Cement Company

2012 Emissions Summary
(Tons / Year)

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 12 Emissions	February 12 Emissions	March 12 Emissions	April 12 Emisions	May 12 Emissions	June 12 Emissions	July 12 Emissions	August 12 Emissions	September 12 Emissions	October 12 Emissions	November 12 Emisions	December 12 Emissions	12 Month Rolling Calculations
614.BF1	Ship Unloading 0.00497	0	0	0	0	0	0.06	0	0	0	0	0	0	0.06
614.BF2	Conveyance to Storage Tanks 0.00243	0	0	0	0	0	0.03	0	0	0	0	0	0	0.03
614.BF3-5	North Terminal Storage Tanks 0.00032	0	0	0	0	0	0.004	0	0	0	0	0	0	0.004
611.BF1	Railcar Loading 0.00171	0	0	0	0	0	0	0	0	0	0	0	0	0
611.BF2	Reclaim airlift dust collector 0.00469	0	0	0	0	0	0	0	0	0	0	0	0	0
611.BF3	Pipe Conveyor Receiving 0.00135	0.001	0	0.002	0.002	0.001	0.003	0.001	0.004	0.001	0.003	0.001	0.003	0.022
621.BF1	Railcar Unloading 0.00043	0.002	0.002	0.002	0.002	0.003	0.002	0.004	0.003	0.004	0.004	0.002	0.003	0.033
621.BF2	South Terminal Storage Silos 0.00081	0.004	0.004	0.005	0.005	0.005	0.005	0.008	0.008	0.009	0.008	0.005	0.006	0.072
621.BF3	Truck Load-out 0.00129	0.005	0.006	0.007	0.008	0.01	0.011	0.011	0.012	0.013	0.013	0.009	0.007	0.112
621.BF4	Pipe Conveyor Discharge 0.00086	0.001	0	0.001	0.001	0.001	0.002	0.001	0.003	0.001	0.002	0.001	0.002	0.016
FU-1	Fugitive Emissions-hold of ship 0.0030	0	0	0	0	0	0.037	0	0	0	0	0	0	0.037
	Total Tons / Year PM (Point Source (PM-10) + fugitive (PM))													0.386

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2012 Throughput in Tons

Equip. No	Air Pollution Control Device Description (All #'s in tons)	January 12 Throughput	February 12 Throughput	March 12 Throughput	April 12 Throughput	May 12 Throughput	June 12 Throughput	July 12 Throughput	August 12 Throughput	Sept 12 Throughput	October 12 Throughput	November 12 Throughput	December 12 Throughput	Total Throughput
614.BF1	Ship Unloading	0	0	0	0	0	24,304	0	0	0	0	0	0	24,304
614.BF2	Conveyance to Storage Tanks	0	0	0	0	0	24,304	0	0	0	0	0	0	24,304
614.BF3-5	North Terminal Storage Tanks	0	0	0	0	0	24,304	0	0	0	0	0	0	24,304
611.BF1	Railcar Loading	0	0	0	0	0	0	0	0	0	0	0	0	-
611.BF2	Reclaim airlift dust collector	0	0	0	0	0	0	0	0	0	0	0	0	-
611.BF3	Pipe Conveyor Receiving	1510	600	2,443	2,584	1550	3,785	1,440	5,957	1,750	4,059	1850	3814	31,342
621.BF1	Railcar Unloading	7,096	8,032	9,371	9,708	11,843	9,003	17,521	13,197	19,117	16,099	10,262	11,638	142,887
621.BF2	South Terminal Storage Silos	8,606	8,632	11,814	12,292	13,393	12,788	18,961	19,154	20,867	20,158	12,112	15,452	174,229
621.BF3	Truck Load-out	7,903	9,266	10,148	11,621	15,620	16,628	17,050	18,259	19,308	19,863	13,838	10,907	170,411
621.BF4	Pipe Conveyor Discharge	1510	600	2,443	2,584	1550	3,785	1,440	5,957	1,750	4,059	1850	3814	31,342
FU-1	Fugitive Emissions-hold of ship	0	0	0	0	0	24,304	0	0	0	0	0	0	24,304

MATERIAL SAFETY DATA SHEET

Tangshan TangAng Materials Co., Ltd

Yard of Tangshan Heavy Plate Co., Ltd. Wangtan Town,

Leting County, Tangshan City, Hebei Province, P.R.China

0630610

Tel: (86)-315-3177198 Fax: (86)-315-3177158

SECTION I: MATERIAL IDENTIFICATION

Material Name: Ground Granulated Blast Furnace Slag (GGBS/GGBFS, or Slag Powder)
Trade Name: **VCEM**
Description: A ground powder made with an appropriate mill from a glassy granular material formed when molten iron blastfurnace slag is rapidly chilled as by immersion in water.
CAS Reg. No.: NA (Mixture)
Supplier: Tangshan TangAng Materials Co.,Ltd

SECTION II: INGREDIENTS IDENTITY

Ingredient: Iron Blast-Furnace Slag

Ingredient Sequence Number: 01

Components	CAS Number	Percentage (Approx.)
Calcium oxide (CaO)	1305-78-8	30-50
Silicon dioxide (SiO_2)	7631-86-9	30-40
Magnesium oxide (MgO)	1309-48-4	2-14
Alumina (Al_2O_3)	1344-28-1	7-18
Iron oxide (Fe_2O_3)	1309-37-1	0.1-1.8

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Manganese oxide (MnO)	7439-96-5	0-1.0
Sulfur (S)	7704-34-9	0-2.0

Ingredient:	Gypsum
Ingredient Sequence Number:	02
Ingredient Percentage:	0-5
CAS Number:	13397-24-5

SECTION III: PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point:	N/A
Specific Gravity (H_2O=1):	2.80-2.95
Vapor Pressure (mm Hg):	N/A
Melting Point:	N/A
Vapor Density (AIR-1):	N/A
Evaporation Rate:	N/A
Solubility in Water:	0.1-0.5%
Appearance & Odor:	Beige to white powder with traces of sulfur odor

SECTION IV: FIRE AND EXPLOSION HAZARD DATA

Flash Point:	N/A.
Extinguishing Media:	Media suitable for surrounding fire.
Special Fire Fighting Procedures:	None.
Unusual Fire & Explosion Hazards:	None Reported.
Flammable Limits:	N/A.
Lower Explosive Limit:	N/A.
Upper Explosive Limits:	N/A.

SECTION V: REACTIVITY DATA

Stability:	Stable
Conditions to Avoid (Stability):	Avoid moisture. Keep dry until used.
Incompatibility:	None known.
Hazardous Decomposition/Byproducts:	Respirable dust particles may be generated when the product is handled.
Hazardous Polymerization:	Will not occur. No conditions to avoid.

SECTION VI: HEALTH HAZARD DATA AND FIRST AID

EXPOSURE LIMITS:

Unless specified otherwise, limits are expressed as a time-weighted average (TWA)

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concentration for an 8-hour work shift of a 40-hour workweek. Limits for cristobalite and tridymite (other forms of crystalline silica) are equal to one-half the limits for quartz.

Abbreviations:

ACGIH TLV: Threshold limit value of the American Conference of Governmental Industrial Hygienists (ACGIH). The Federal Mine Safety and Health Administration (MSHA) has adopted the TLVs established by ACGIH, as set forth in the 1973 edition of "TLVs Threshold Limit Values for Chemical Substances in Workroom Air Adopted by ACGIH for 1973".

m.p.p.c.f.: Millions of particles per cubic foot of air, based on impinger samples counted by lightfield techniques.

mg/m3: Milligrams of substance per cubic meter of air.

NIOSH REL: Recommended exposure limit of the National Institute for Occupational Safety and Health (NIOSH), expressed as a TWA concentration for up to a 10-hour workday during a 40- hour workweek.

NIOSH STEL: NIOSH Short Term Exposure Limit. This is a 15-minute TWA exposure that should not be exceeded at any time during a workday.

OSHA ACC: Acceptable Ceiling Concentration set by the federal Occupational Safety and Health Administration (OSHA). Under OSHA regulations, an employee's exposure to an acceptable ceiling concentration shall not exceed at any time during an 8-hour shift the acceptable ceiling concentration limit given for the substance, except for a time period, and up to a concentration not exceeding the maximum duration and concentration allowed as specified under the subheading "acceptable maximum peak above ACC for an 8-hour shift". If no such subheading appears, then employee exposure shall never exceed the acceptable ceiling concentration limit.

OSHA PEL: Permissible exposure limit of OSHA.

Calcium Oxide CaO: **OSHA PEL:** 5 mg/m3; **ACGIH TLV:** 5 mg/m3; **NIOSH REL:** 2 mg/m3.

Silicon Dioxide SiO2: **OSHA PEL:** (respirable) 80 mg/m3 □(% SiO_2); **ACGIH TLV:** 20 m.p.p.c.f.; **NIOSH REL:** 6 mg/m3.

Magnesium Oxide MgO: **OSHA PEL:** (total particulate) 15 mg/m3; **ACGIH TLV** 10 mg/m3.

Alumina Al2O3: **OSHA PEL:** (respirable) 5 mg/m3, (total dust) 15 mg/m3; **ACGIH TLV:** 10 mg/m3.

Iron Oxide Fe2O3: **OSHA PEL:** 10 mg/m3; **ACGIH TLV:** 10 mg/m3; **NIOSH REL:** 5 mg/m3.

Manganese Oxide MnO: **OSHA ACC:** 5 mg/m3; **ACGIH TLV:** 5 mg/m3; **NIOSH STEL:** 3 mg/m3; **NIOSH REL:** 1 mg/m3.

Sulfur S: **OSHA P**EL: Not listed; **ACGIH TLV:** Not listed; **NIOSH STEL:** Not listed.

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Other Particulates: **OSHA PEL:** (total particulate, not otherwise regulated) 15 mg/m3, (respirable particulate, not otherwise regulated) 5 mg/m3; **ACGIH TLV:** (nuisance particulates) 10 mg/m3.

HEALTH HAZARDS:

Primary Route(s) of Entry:

Inhalation: Yes **Skin:** Yes **Ingestion:** No or unlikely.

Acute:

Eye Contact: Minor irritation to the eyes. Direct contact by larger amounts of material or splashes of wet material may cause effects ranging from moderate eye irritation to chemical burns and blindness.

Inhalation: Dusts may irritate the nose, throat, and respiratory tract. Coughing, sneezing, and shortness of breath may occur following exposures in excess of appropriate exposure limits.

Skin Contact: Exposure to dry material may cause drying of the skin with consequent mild irritation. Dry material contacting wet skin or exposure to moist or wet material may cause more severe skin effects including thickening, cracking or fissuring of the skin. Prolonged exposure can cause severe skin damage in the form of (caustic) chemical burns.

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation and blockage.

Chronic:

Inhalation: Inhalation of slag dust can cause inflammation of the lining of the nose.

Eye Contact: Exposure to slag dust may cause inflammation of the cornea.

Skin Contact: Hypersensitive individuals may develop allergic dermatitis.

Signs & Symptoms of Exposure: Irritation of eyes, skin and/or respiratory system.

Medical Conditions Generally Aggravated by Exposure: Inhaling respirable dust may aggravate existing respiratory system disease(s) and/or dysfunctions such as emphysema or asthma. Exposure may aggravate existing skin and/or eye conditions.

EMERGENCY & FIRST AID PROCEDURES:

Eyes: Immediately flush eye(s) with plenty of clean water for at least 15 minutes, while holding the eyelid(s) open. Beyond flushing, do not attempt to remove material from the eye(s). Contact a physician if irritation persists or later develops.

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Inhalation: Remove to fresh air. Dust in throat and nasal passages should clear spontaneously. Contact a physician if irritation persists or later develops.

Skin: Wash with cool water and a pH-neutral soap or mild detergent intended for use on skin. Seek medical treatment in all cases of prolonged direct exposure to wet product or prolonged wet skin exposure to dry product.

Ingestion: Do not induce vomiting. If person is conscious, give large quantity of water. Get immediate medical attention.

SECTION VII: PERSONAL PROTECTION AND CONTROL MEASURES

Ventilation: Local exhaust or general ventilation adequate to maintain exposures below appropriate exposure limits.

Other: Exposure levels should be monitored regularly. Exposure levels in excess of appropriate exposure limits should be reduced by all feasible engineering controls, including (but not limited to) ventilation, process enclosure, and enclosed employee workstations.

Respiratory Protection: When exposure levels exceed or are likely to exceed appropriate exposure limits, follow MSHA or OSHA regulations, as appropriate, for use of NIOSH-approved respiratory protection equipment.

Skin Protection: Protective gloves, shoes and protective clothing that are impervious to water should be worn to avoid contact with skin.

Eye Protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessive (visible) dust conditions are present or anticipated. Contact lenses should not be worn when working with this product.

Hygiene: Periodically wash exposed skin with a pH-neutral soap.
Wash again before eating, drinking, smoking, and using toilet facilities. Wash work clothes after each use. If clothing becomes saturated with wet material, it should be removed and replaced with clean, dry clothing.

SECTION VIII: STORAGE AND HANDLING PRECA UTIONS

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Respirable dust may be generated during processing, handling, and storage. The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Keep product dry until used.

Do not store or handle near food and beverages or smoking materials.

The personal protection and controls identified in Section VII of the MSDS should be applied as appropriate.

Steps to be taken if material is released or spilled: Use dry clean-up methods that do not disperse dust into the air. Avoid actions that cause dust to become airborne. Avoid inhalation of dust and contact with skin. Wear appropriate personal protective equipment. Scrape up wet material and place in an appropriate container. Allow the material to "dry" before disposal.

Waste Disposal Method: Do not attempt to wash material down drains. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

SECTION IX: SOURCE DATA / OTHER COMMENTS

Reference Sources:

(1) CSR Rinker Materials, *MSDS for: Ground Slag Material,* Effective Date: October 1, 1996; Revision: 0; (Address: 1501 Belvedere Road, West Palm Beach, FL 33406).

(2) TARMAC AMERICA, INC. *Material Safety Data Sheet for Iron Blast Furnace Slag, Ground*, Revised: 3/25/98; (Address: 1151 Azalea Garden Road, Norfolk, VA 23502)

(3) Test Certificate of GGBS issued by the Original Manufacturer (dated 27th February 2004)

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Supplier's Address:

Tangshan TangAng Materials Co.,Ltd
Yard of Tangshan Heavy Plate Co.,Ltd. Wangtan Town,
Leting County,Tangshan City, Hebei Province, P.R.China
0630610

Tel: (86)-315-3177198 Fax: (86)-315-3177158

NOTICE: Physical and chemical data contained in this MSDS are provided for use in assessing the hazardous nature of the material. The MSDS was prepared carefully, using current references; however Tangshan TangAng Co., Ltd. does not certify the data on the MSDS. The certified values for this material are given only based on the Tangshan TangAng Co., Ltd Certificate of Analysis.

South Terminal
Documents

STATE OF OREGON
DEPARTMENT OF STATE LANDS
SUBMERGED AND SUBMERSIBLE LAND LEASE

42024-ML

The State of Oregon, by and through the Oregon State Land Board and the Department of State Lands ("State"), hereby leases to the person(s) herein named ("Lessee"), the following described lands on the terms and conditions stated herein (the "Lease"):

NAME of LESSEE:
Ash Grove Cement Company

ADDRESS:
3737 N Port Center Way
Portland, OR 97217

Legal classification of Lessee is a Delaware Corporation,

Lands situated in Multnomah County more fully described as follows:

All state owned submerged and submersible lands in the Willamette River in Section 28, Township 1 North, Range 1 East, Willamette Meridian, in the City of Portland, Multnomah County, Oregon, more particularly described as follows:

Commencing at a point on the line of Ordinary High Water of the Willamette River and that point being 1,885 feet, more or less, West and 1,023.6 feet, more or less, South of the northeast corner of Section 28;

thence proceeding South 61°30' West for a distance of 40 feet, more or less, to a point in the Willamette River and the TRUE POINT OF BEGINNING;

thence upstream parallel to the thread of the stream and 40 feet distant from the line of Ordinary High Water for a distance of 117.5 feet, more or less, to a point;

thence shoreward along a line perpendicular to the thread of the stream for a distance of 40 feet, more or less, to a point;

thence continuing upstream along the line of Ordinary High Water for a distance of 15 feet, more or less, to a point;

thence riverward along a line perpendicular to the thread of the stream for a distance of 40 feet, more or less, to a point;

thence continuing upstream parallel to the thread of the stream and 40 feet distant from the line of Ordinary High Water for a distance of 117.5 feet, more or less, to a point;

thence riverward along a line perpendicular to the thread of the stream for a distance of 10 feet, more or less, to a point;

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thence downstream parallel to the thread of the stream and 50 feet distant from the line of Ordinary High Water for a distance of 250 feet, more or less, to a point;

thence shoreward along a line perpendicular to the thread of the stream for a distance of 10 feet, more or less and the TRUE POINT OF BEGINNING, containing 3,100 square feet or 0.0712 acres, more or less and as shown on the attached Exhibit "A".

Total number of acres: 0.0712 acres, more or less.

Hereinafter referred to as the "Leasehold".

SECTION 1 - LEASE TERM; RENEWAL; TERMINATION

1.1 Term: This Lease will continue for a period of 15 years commencing on April 1, 2009, the month and date of which will be known as the "Lease Anniversary Date," and expiring on March 31, 2024, unless terminated earlier as provided under Section 1.4 or Section 7.2 below.

1.2 Renewal: Lessee may apply to renew this Lease for successive 15 year terms by submitting a completed lease renewal application form to State not less than 180 days prior to the expiration of the current term. Upon receipt of the application, State shall renew this Lease unless:

1.2.1 State determines, in its sole discretion, that Lessee has not complied with the terms of this Lease, the applicable statutes or Oregon Administrative Rules; or

1.2.2 Lessee is no longer the preference right holder as provided in ORS 274.040(1) and defined in OAR 141-082-0020; or

1.2.3 State determines that the renewal of this Lease for all or any portion of the Leasehold would be contrary to local, state, or federal law, or would be inconsistent with the policies set forth in OAR 141-082-0010.

1.3 Notice of Intent Not to Renew. Except as otherwise provided in this Lease, State shall provide written notice to Lessee two years in advance if State intends not to renew this Lease for all or any portion of the Leasehold. If State determines not to renew this Lease, but less than two years remain in the Lease term, State shall, at Lessee's request, extend the term of this Lease to complete the two year notice period, within which time Lessee shall vacate that portion of the Leasehold upon which the Lease is not being renewed and relocate any sublessees in an orderly fashion.

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1.4 Termination Upon Mutual Consent: This Lease may be terminated by mutual written consent of Lessee and State.

1.5 Holdover: If Lessee does not vacate the Leasehold at the expiration or upon termination of the Lease, State may treat Lessee as a tenant from month to month, subject to all of the provisions of this Lease except the provisions for term, renewal, and Rent. State may unilaterally establish a new Rent for the month-to-month tenancy, payable monthly in advance. If a month-to-month tenancy results from holdover by Lessee under this Section, the tenancy will be terminable at the end of any monthly rental period upon Notice from State given not less than 30 days prior to the termination date specified in the Notice.

SECTION 2 – RENT; OTHER ASSESSMENTS

2.1 Initial Annual Rent: The rental payment to be paid by Lessee to State (the "Rent") for the first year of the Lease is $899.00, based on the following Riparian Land Value. Receipt of the first year's Rent is hereby acknowledged.

Use Class	Area (square ft.)	Rate Choice	Annual Rent
Marine Industrial Marine Services	3,100 square feet	Riparian Land Value	$899.00
		TOTAL	$899.00

2.2 Annual Rent Adjustment: The Rent will be adjusted annually in accordance with the provisions of OAR 141-082-0100 in effect at the time. Each payment is due on the Lease Anniversary Date established in Section 1.1.

2.3 Address for Rent Payments: Until State provides notice of a change in address (using a method described in Section 10.4), Lessee shall deliver all Rent payments to the following address:

Department of State Lands
Unit 18
PO Box 4395
Portland, OR 97208-4395

2.4 Assessments: Lessee shall pay all taxes or assessments, or both, that are levied against the Leasehold, whether or not such taxes or assessments, or both, have been levied in the past against the Leasehold or State by the assessing agency.

2.5 Liens: With the exception of mortgages or other security interests authorized by State under Section 6, Lessee shall immediately cause to be discharged any lien or other charge placed on the Leasehold or its Improvements, arising directly or indirectly out of Lessee's actions. State may terminate this Lease if Lessee fails to discharge any lien or charge or provide State with a sufficient bond covering

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the full amount of the lien after ten days Notice to do so by State. Lessee shall pay and indemnify State for all costs, damages or charges of whatsoever nature, including attorney's fees, necessary to discharge such liens or charges whether the costs, damages or charges are incurred prior or subsequent to any termination of this Lease.

2.6 Late Charges and Interest: Late payments by Lessee of Rent and other charges due under the Lease will cause State to incur costs and other damages not otherwise addressed in this Lease, the exact amount of which will be difficult to ascertain, including costs associated with administrative processing and accounting. In recognition of the foregoing, the parties agree that, notwithstanding other remedies permitted under the Lease and in addition to these remedies, if Lessee has not made full payment of amounts due within 20 days of the date payment is due, Lessee shall pay an additional charge equal to five percent of the amount of the late Rent or other charge. In addition, all amounts due and owing under this Lease, including late charges, will bear interest at the lower of: (a) the highest interest rate allowable by law, or (b) 12% per year.

SECTION 3 - USE AND RESTRICTIONS ON USE

3.1 Authorized Use: This Lease grants to Lessee the right to use the Leasehold for the specific purpose(s) described below in accordance with the Lease terms and conditions, applicable local (including local comprehensive land use planning and zoning ordinances), state and federal laws and the applicable Oregon Administrative Rules.

Marine Industrial/Marine Service
Pier, non-wharf

3.2 Restrictions on Use: Lessee shall:

3.2.1 comply with all applicable local, state and federal laws and regulations affecting the Leasehold and its use, including local comprehensive land use planning and zoning ordinances, and correct at Lessee's own expense any failure of compliance created through Lessee's fault or by reason of Lessee's use;

3.2.2 dispose of all waste in a proper manner and not allow debris, garbage or other refuse to accumulate within the Leasehold, and, if Lessee allows debris, garbage or other refuse to accumulate within the Leasehold, allow State to remove the debris, garbage and other refuse, and collect the cost of such removal from Lessee;

3.2.3 not cut, destroy or remove, or permit to be cut, destroyed or removed, any vegetation that may be upon the Leasehold except with written permission of State, and promptly report to State the cutting or removal of vegetation by other persons;

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3.2.4 conduct all operations within the Leasehold in a manner which conserves fish and wildlife habitat, protects water quality, and does not contribute to soil erosion or the growth of noxious weeds;

3.2.5 maintain all buildings, docks, pilings, floats, gangways, similar structures, or other improvements (each an "Improvement") in a good state of repair; and

3.2.6 not unreasonably interfere with the public's trust rights of commerce, navigation, fishing or recreation.

3.3 Condition of Leasehold and Improvements: Lessee represents that it has inspected the Leasehold and Improvements, if any, and accepts the Leasehold and all Improvements in their present condition, AS IS. State has made no oral or written representations concerning the condition of the Leasehold or its Improvements, if any, nor their fitness or suitability for any purpose.

3.4 Limitation on Improvements: Lessee may not construct or place upon the Leasehold any Improvement that exceeds $15,000 in cost or value unless Lessee has first obtained the prior written authorization of State or the Improvement is exempt under OAR 141-082-0030(4). State shall not unreasonably withhold or delay its approval for Improvements consistent with the purposes of this Lease. All Improvements must be consistent with the authorized use(s) of this Lease stated in Section 3.1 and in compliance with all applicable laws, regulations, and ordinances as stated in Section 3.2.1.

3.5 Disposition of Unauthorized Improvements or Structures: Lessee shall remove all unauthorized Improvements from the Leasehold upon receiving Notice from State, unless State elects to remove the Improvements at Lessee's cost and expense.

3.6 Removal of Authorized Improvements: Lessee shall remove all authorized Improvements within 90 days after the termination or expiration of the Lease or modification of the Lease under Section 4.2, unless otherwise agreed by the parties or the Improvement is exempt under OAR 141-082-0030(4). Lessee is responsible for any damage done to the Leasehold as a result of the removal of any Improvement. Any Improvement remaining on the Leasehold after the 90 days will at the option of State become the property of State, unless otherwise agreed by the parties.

3.7 Liability: Lessee shall defend, indemnify and hold State harmless from and against all claims, demands, actions, suits, judgment, losses, damages, penalties, fines, costs, and expenses (including expert witness fees and costs and attorney's fees in an administrative proceeding, at trial, or on appeal) arising from or attributable, in whole or in part, to the Lease or any operations conducted or allowed by Lessee on the Leasehold. As used in this Section 3.7 only, "State" means the State of Oregon and its boards, commissions, agencies, officers, employees, contractors, and agents.

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3.8 Waste Water Disposal: In addition to any other applicable laws and regulations, Lessee shall obtain any permits required by state or local authorities and shall comply with Oregon Department of Environmental Quality and Oregon State Marine Board requirements for sewage collection and waste water disposal for boats and floating structures.

3.9 Hazardous Substances:

3.9.1 Lessee shall not use, store, or dispose of, or allow the use, storage, or disposal within the Leasehold of any material that may pose a threat to human health or the environment, including without limitation, hazardous substances, pesticides, herbicides, or petroleum products (a "Hazardous Substance") except in strict compliance with applicable laws, regulations and manufacturer's instructions, and Lessee shall take all necessary precautions to protect human health and the environment and to prevent the release of any Hazardous Substance on or from the Leasehold.

3.9.2 Lessee shall keep and maintain accurate and complete records of the amount of all Hazardous Substances stored or used on the Leasehold, and shall immediately notify State of any release or threatened release of any Hazardous Substance on or from the Leasehold or otherwise attributable to operations or activities on the Leasehold.

3.9.3 If any Hazardous Substance is released, and the release arises from or is attributable, in whole or in part, to any operations conducted or allowed by Lessee on the Leasehold, Lessee shall promptly and fully remediate the release in accordance with state and federal regulations and requirements. If Lessee fails to so remediate, State may remove and remediate any release of a Hazardous Substance on or from the Leasehold or attributable to operations or activities conducted or allowed by Lessee on the Leasehold and collect the cost of removal or remediation from Lessee either as additional Rent or as damages.

3.9.4 In addition to any duty to indemnify specified elsewhere in this Lease, Lessee shall indemnify State to the fullest extent allowed by Oregon law against any claim or costs arising from or related to a release of a Hazardous Substance arising from or attributable, in whole or in part, to any operations conducted or allowed by Lessee on the Leasehold.

3.10 Weed Control: Lessee shall control plant pests and diseases and noxious weeds, including aquatic weeds, within the Leasehold as directed by the local county weed control district, the Oregon Department of Agriculture or any other governmental authority which has authority for the prevention or control, or both, of noxious weeds, plant pests or diseases, or as may be authorized or directed by State.

AGC0011961

SECTION 4 - MODIFICATION OF LEASEHOLD AREA OR USE

4.1 Change of Leasehold Area or Use: Lessee may request that State amend the Lease to expand or reduce the size, or change the authorized use, of the Leasehold using a form provided by State. However, no such amendment will be effective unless authorized in writing by State. State shall process and review requests to amend the Lease in the same manner as a new lease application.

4.2 Special Conditions Applicable to Reductions in Leasehold Area. This Lease may be amended to reduce the Leasehold area only if the portion of the Leasehold to be removed from the Lease does not contain any Improvement. If the amendment results in a reduction of Rent due under the Lease, the reduction will be effective commencing on the Lease Anniversary Date that falls at least 12 months after the later of: (a) the date of the reduction in the Leasehold area; or (b) the date on which the amendment is fully executed.

4.3 Lessee Liable for Violations. Notwithstanding any reduction in the Leasehold area under this section, Lessee shall remain liable for any violation of Section 3.8 or 3.9 occurring on lands removed from the Leasehold prior to the amendment removing such lands.

SECTION 5 – RESERVATIONS

5.1 Access: State reserves a right of access to the Leasehold, which, subject to any applicable provisions of the Oregon Residential Landlord and Tenant Act, ORS chapter 90, the State may exercise at all reasonable times to inspect and manage the State's interest in the Leasehold and to evaluate and ensure compliance with the terms and conditions of this Lease. State may examine pertinent records of Lessee for the purpose of ensuring compliance with the Lease.

5.2 Minerals: State reserves all rights to coal, oil, gas, geothermal resources and other minerals, and all deposits of clay, stone, gravel and sand valuable for building, mining, or commercial purposes including, without limitation, the right to explore, mine, develop, produce and remove such minerals and other deposits, along with the right of ingress and egress for these purposes, and to terminate this Lease as to all or any portion of the Leasehold when required for these purposes with 120 days prior written notice to Lessee or as otherwise provided by law.

5.3 Easements: State reserves the right at any time to grant easements across the Leasehold for tunnels, telephone and fiber optic cable lines, pipelines, power lines, or other lawful purpose, along with the right of ingress and egress for these purposes, subject to the inclusion in any such grant of easement of a requirement that the easement holder take all reasonable precautions to ensure that exercise of their easement rights does not unreasonably interfere with Lessee's use(s) authorized in the Lease.

AGC0011962

5.4 Public Access and Recreational Use: All state-owned submerged and submersible land must remain available and open to the public for commerce, navigation, fishing and recreation unless restricted or closed by State to public entry pursuant to the provisions of applicable Oregon Administrative Rules. Lessee may request State, but State is not obligated, to close the Leasehold to public entry or restrict recreational use by the public on all or portions of the Leasehold to protect persons or property from harm arising from or in connection with Lessee's activities.

This reservation does not grant the public any right to use or occupy, without Lessee's permission, Lessee-owned property or structures authorized under this Lease.

5.5 Other: State reserves all other rights not expressly granted to Lessee under this Lease.

SECTION 6 – ASSIGNMENTS; SUBLEASES

6.1 Assignment and Sublease:

6.1.1 Except as provided in Section 6.2, Lessee may not assign this Lease or sublease the Leasehold or any portion of the Leasehold nor enter into any third party agreement respecting the Lease or the Leasehold without first obtaining the prior written consent of State pursuant to the requirements of the applicable Oregon Administrative Rules. Requests must be in writing using an application form prescribed by State. The application must be received by State at least 30 calendar days prior to the proposed effective date of the sublease or assignment. State shall make a good faith effort to complete its review of Lessee's application within 30 days following receipt. If the application is incomplete, or if State requests additional information concerning the proposed assignment or sublease, the time period for reviewing applications may be extended and the proposed sublease or assignment may be delayed pending the completion of such review.

6.1.2 State reserves the right to condition its consent to an assignment or sublease as State deems reasonably prudent, including the right to require changes to the terms of this Lease. Each assignee, sublessee, and third party interest will be required to comply with all of Lessee's obligations under this Lease, and the applicable Oregon Administrative Rules. Lessee will remain liable for the performance of all obligations under this Lease unless State's written consent expressly releases Lessee from further liability.

6.1.3 For the purposes of this section, if Lessee is a corporation or partnership or limited liability company, the transfer of any corporate stock or partnership or membership interest (including by operation of law) will be deemed an assignment subject to the provisions of this section if the result of the transfer is a change of management control or controlling interest in Lessee.

AGC0011963

6.1.4 Lessee may not grant a mortgage or security interest in this Lease without prior written consent of State, which consent shall not be unreasonably withheld. Any subsequent assignment by the creditor will require the prior written approval of State.

6.2 Permitted Assignments and Subleases: Notwithstanding Section 6.1 of this Lease, the following assignments, mortgages and security interests, and subleases of Lessee's interest in the Leasehold are permitted and written notice to State is not required:

6.2.1 subleases of portions of Lessee's interest in the Leasehold area in the ordinary course of Lessee's business for the purposes approved under Section 3.1;

6.2.2 the sublease of the entire Leasehold for a term that is less than one year for a purpose specified in Section 3.1; or

6.2.3 the transfer of Lessee's interest in the Lease to a surviving spouse or immediate family member following the death of Lessee; except that, any other transfer of ownership following the death of Lessee is considered an assignment requiring State's approval.

SECTION 7 – DEFAULT

7.1 Default: The following are events of default:

7.1.1 Failure of Lessee to pay any rent, tax, reimbursement or other charge or payment due under the Lease within 20 days after the date payment is due. For the purposes of this subsection, if the due date for payment is not otherwise stated in this Lease or otherwise defined in statute or administrative rule, payment is due on the date set forth in the Notice from State to Lessee informing Lessee of its obligation to pay the charge or payment.

7.1.2 Failure of Lessee to comply with any non-payment-related term or condition or obligation of the Lease within 30 days after Notice by State specifying the nature of the deficiency, or, in the event of an emergency, within the time specified by State to resolve the emergency. Upon timely request from Lessee, State may in its good faith discretion permit the deadline for curing non-compliance to be extended if it finds that: (1) the default cannot reasonably be cured within the 30 day period; (2) the interests of State will not be harmed by an extension; (3) default was not due to the willful act or gross negligence of Lessee; and (4) State and Lessee mutually agree upon a written plan and timeline for curing the non-compliance.

AGC0011964

7.1.3 Any of the following:

a) insolvency of Lessee;
b) the filing by Lessee of a voluntary petition in bankruptcy;
c) an adjudication that Lessee is bankrupt or the appointment of a receiver of the properties of Lessee;
d) the filing of any involuntary petition of bankruptcy and failure of Lessee to secure a dismissal of the petition within 30 days after filing; or
e) attachment of or the levying of execution on the Leasehold interest and failure of Lessee to secure discharge of the attachment or release of the levy of execution within ten days.

If Lessee consists of two or more individuals or business entities, the events of default specified in this paragraph apply to each individual or entity unless within ten days after an event of default occurs the remaining individuals or entities produce evidence satisfactory to State that they have unconditionally acquired the interest of the one causing the default. If the Lease has been assigned under Section 6 of this Lease, the events of default specified in this subsection apply only with respect to the one then exercising the rights of Lessee under the Lease.

7.1.4 Notwithstanding the above, if State in good faith believes that a material default has occurred which may imperil State's rights in the land or the discharge of its Constitutional obligations with respect to the land, State may declare an immediate default without any right of Lessee to cure the deficiency.

7.2 Termination of Occupancy Upon Default: State may terminate Lessee's right to occupy the Leasehold for any default by Lessee that remains uncured past the time provided in Section 7.1. State shall exercise its right to terminate Lessee's occupancy under this section by providing Notice to Lessee of the default and of State's intent to terminate Lessee's right of occupancy under the Lease upon the date provided in the Notice. State may recover from Lessee all costs arising out of State's re-entry and, if State and Lessee mutually agree to terminate the Lease as provided in Section 1.4, all costs of re-letting the Leasehold. If State and Lessee mutually agree to terminate the Lease, State may recover the amount of unpaid rent that otherwise would have been required to be paid under the Lease from the date of default until a new Lease has been secured or, if State and Lessee do not agree to terminate the Lease and State is unable to secure another lessee for the Leasehold, until such time as the Lease expires. Lessee shall dispose of all Improvements as specified in Section 3.6 of this Lease. If Lessee owns a floating home and has placed the home on the Leasehold pursuant to the provisions of Section 3.1 of this Lease, the lease termination provisions of ORS chapter 90 will apply to the extent the provisions of this Lease are inconsistent with this chapter.

7.3 State's Right to Cure Defaults:

7.3.1 If Lessee fails to perform any obligation under this Lease, State may perform the obligation of the Lease 30 days after providing Notice to

AGC0011965

Lessee. All of State's expenditures to carry out the obligation must be reimbursed by Lessee on demand with interest at the rate of one percent per month accrued from the date of expenditure by State.

7.3.2 Notwithstanding Section 7.3.1, but subject to ORS chapter 90 if applicable, if any violation of a term or condition of this Lease, including without limitation use of the Leasehold in a manner not permitted under the Lease, is causing or threatens to cause personal injury or damage to the Leasehold or other property, or if damage to the Leasehold arises from some other cause, State may immediately enter upon the Leasehold and take such action as it deems necessary to stop the use or mitigate the injury or damage. If the injury or damage is due to a violation of the terms or conditions of this Lease, Lessee will be liable for all costs incurred by State as a result of the violation and the action taken by State to mitigate the injury or damage. State, at its option, may send Notice to Lessee of the violation and, upon receipt of the Notice, Lessee shall immediately cease the violation and repair the injury or correct all damage caused by the violation. State's failure to provide Notice of a violation may not be deemed a waiver of the violation by State or authorization to Lessee to continue or fail to correct the violation.

SECTION 8 – INSURANCE; BONDS

8.1 Commercial General Liability: Lessee shall obtain at Lessee's expense, and keep in effect during the term of this Lease, comprehensive or commercial general liability insurance covering bodily injury and property damage with an insurance company acceptable to State. This insurance must include personal injury coverage, contractual liability coverage for the indemnities provided under this Lease and products/completed operations liability. Combined single limit per occurrence may not be less than $1,000,000. Annual aggregate limit may not be less than $1,000,000.

8.2 Marine Protection and Indemnity Coverage: Lessee shall obtain, at Lessee's expense, and keep in effect during the term of the Lease, Marine Protection and Indemnity Coverage. Combined single limit per occurrence shall not be less than $N/A.

8.3 Automobile Liability Insurance: Lessee shall obtain, at Lessee's expense, and keep in effect during the term of the Lease, Automobile Liability Insurance covering all owned, non-owned, and hired vehicles. This coverage may be written in combination with the Commercial General Liability Insurance. Combined single limit per occurrence shall not be less than $N/A.
[Option for Auto Liability if Lessee is transporting any commodity that could cause environmental damage, ranging from fuel oil to radioactive materials:
Automobile Liability Insurance: Lessee shall obtain, at Lessee's expense, and keep in effect during the term of the Lease Automobile Liability Insurance, including MCS-90 endorsement, with a combined single limit of no less than $N/A or equal to the U.S. Department of Transportation requirements, whichever is greater. The policy shall insure against bodily injury, property damage, or

AGC0011966

environmental damage arising out of the use (including loading, transporting and unloading) by or on behalf of Lessee, it agents and employees of owned, non-owned or hired vehicles.

8.4 Pollution Liability: Lessee shall obtain at Lessee's expense, and shall keep in effect during the term of the Lease, Pollution Liability Insurance covering Lessee's liability for bodily injury, property damage and environmental damage resulting from sudden accidental and gradual pollution and related cleanup costs incurred by Lessee, all arising out of Lessee's lease of the Leasehold. Combined single limit per occurrence may not be less than $N/A. Annual aggregate limit may not be less than $N/A.

8.5 Workers' Compensation Insurance: All employers, including Lessee, that employ subject workers who perform work under this Lease in the State of Oregon must comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Lessee shall ensure that each of its sublessees (if permitted) complies with these requirements.

8.6 Revisions/Amendments/New Requirements: The amounts and types of insurance and the party responsible for procuring the insurance may be revised or amended by State periodically at State's sole discretion after State:

(a) consults with its insurance advisor;
(b) consults with Lessee;
(c) considers the commercial reasonableness of any requirements, amendments or revisions; and
(d) considers State's need for adequate insurance protection and State's fiduciary obligations.

Within 30 days after Notice from State to Lessee of State's revision or amendment of the insurance requirements, Lessee shall provide satisfactory evidence to State that Lessee has obtained new insurance coverage the conforms to the revised/amended insurance requirements. If mutually agreed in writing, Lessee may have additional time to obtain such insurance.

8.7 Named Insured Parties: The liability insurance coverages required for performance of the Lease must include the State of Oregon, the Department of State Lands and its Departments, sections, officers, agents and employees as additional insureds but only with respect to Lessee's activities to be performed under this Lease.

8.8 Certificate(s) of Insurance: As evidence of the insurance coverages required by this Lease, Lessee shall furnish certificate(s) of insurance to State prior to the execution of this Lease, and not less often than annually thereafter and as reasonably requested by State. The certificate(s) must specify all of the parties who are additional insured (or loss payees). Insurance coverages required under this Lease must be obtained from acceptable insurance companies or entities reasonably acceptable to State. Lessee is financially responsible for all deductibles, self-insured retentions and/or self-insurance included hereunder.

AGC0011967

8.9 "Tail" Coverage: If any of the required liability insurance is on a "claims made" basis, "tail" coverage will be required at the termination or expiration of this Lease for a duration of 24 months, or the maximum time period reasonably available in the marketplace. Lessee shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 months following termination or expiration of the Lease. Continuous "claims made" coverage is acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of the Lease. If continuous "claims made" coverage is used, Lessee shall keep the coverage in effect for not less than 24 months from the termination or expiration of the Lease.

8.10 Bond: State reserves the right to require Lessee to furnish to State a surety bond or an equivalent cash deposit or certificate of deposit, in an amount to be determined by State in the exercise of its reasonable discretion, which names the State of Oregon as co-owner to ensure that Lessee will perform in accordance with all terms and conditions of the Lease. NOTE: all bonds must receive AG review and approval.

SECTION 9 - ADDITIONAL CONDITIONS AND STIPULATIONS

9.1 None.

SECTION 10 - MISCELLANEOUS

10.1 Entire agreement: This Lease, together with the attached exhibits and attachments, constitutes the entire agreement between the parties. No waiver, consent, modification or change of terms of this Lease will bind either party unless in writing. Such waiver, consent, modification or change, if made, will be effective only in the specific instance and for the specific purpose given, and will be valid and binding only if it is signed by each party. There are no understandings, agreements or representations, oral or written, not specified herein regarding this Lease. This Lease supersedes all prior or existing lease or rental agreements between the parties with respect to the Leasehold described in this Lease.

10.2 No Partnership: State is not a partner nor in a joint venture with Lessee in connection with any business carried on in connection with this Lease or the Leasehold and has no obligation for Lessee's debts or other liabilities.

10.3 Non-Waiver: Waiver by either party of strict performance of any provisions of this Lease will not be a waiver nor prejudice the party's right to require strict performance of the same provision in the future or of any other provision.

AGC0011968

10.4 Notices:

10.4.1 Any communication required by the terms of this Lease to be given in writing (hereafter, a "Notice") must be given or be served by:

a) depositing the same in the United States mail, postage prepaid; registered or certified mail, with return receipt requested; or
b) personal delivery service with all charges billed to shipper; or
c) expedited delivery service with all charges billed to shipper; or
d) prepaid telegram, telex or facsimile;

addressed to the party for whom the Notice is intended at the address set forth below or at such other address as the party may designate from time to time.

For Notices to Tenant:

Ash Grove Cement Company
3737 N Port Center Way
Portland OR 97217

For Notices to Landlord:

Department of State Lands
775 Summer Street, NE Suite 100
Salem, OR 97301-11279

10.4.2 Notice is deemed received:

a) upon receipt if sent by telegram, telex or facsimile or if personally delivered (as long as delivery is confirmed by the receiving telex or facsimile operator, including electronic confirmation of receipt, or by the courier delivery service, as the case may be); or
b) three business days after the date of deposit in a post office or other official depository under the care and custody of the United States Postal Service, if sent by United States mail; or
c) on the date of delivery by any expedited delivery service, or
d) on the date any party declines to accept any Notice given as provided in this section.

10.4.3 Each party shall have an address, for Notice purposes, that is within the continental United States and, if any party resides outside the continental United States, the party shall designate an agent for the purpose of receiving Notices whose address is within the continental United States. Any party may change its address for the purpose of receiving Notices by delivering a Notice of the change of address to the other party as described in this section 7.3.

10.4.4 Communications between the parties that are not required by this Lease to be in writing may be by any mutually acceptable method.

10.5 Governing Law; Venue: This Lease and all matters related to the rights and responsibilities of the parties under it are governed by and subject to the laws of the State of Oregon and the administrative rules of the Department of State Lands and the State Land Board, as they may change from time to time. The

AGC0011969

Oregon Administrative Rules contain terms and conditions which relate to the rights and responsibilities of the parties under this Lease, and all such terms and conditions (as they may change from time to time) are hereby incorporated by reference and made a part of this Lease. Any claim, action, suit or proceeding (collectively, a "Claim") between State and Lessee that arises from or relates to the Lease must be brought and conducted solely and exclusively within the Circuit Court of Marion County for the State of Oregon; except that, if a Claim must be brought in a federal forum, then unless otherwise prohibited by law it must be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. However, in no way is this section or any other provision of this Lease to be construed as a waiver by the State of Oregon of any form of defense or immunity, whether it is sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the Constitution of the United States, or otherwise, from any Claim or from the jurisdiction of any court. Lessee, by execution of this Lease, hereby consents to the personal jurisdiction of all such courts.

10.5 Binding on Successors: This Lease is binding on and will inure to the benefit of the successors and assigns of the parties to it, but nothing in this section may be construed as a consent by State to any disposition or transfer of the Lease or any interest in it by Lessee except as otherwise expressly provided in this Lease.

10.6 Nondiscrimination: The Leasehold must be used in a manner, and for such purposes, that assure fair and nondiscriminatory treatment of all persons without respect to race, creed, color, religion, handicap, disability, age, gender, or national origin.

10.7 Right To Sue More Than Once: State may sue periodically to recover damages accrued to date and no action for damages will bar later actions for damages subsequently accruing.

10.8 Remedies Cumulative: The remedies contained in this Lease are in addition to, and do not exclude, any other remedy available at law or in equity, and the exercise by either party of any one or more of its remedies does not preclude the exercise by it at the same or different times of any other remedies for the same default or breach by the other party.

10.9 Attorney Fees: If suit or action is instituted in connection with any controversy arising out of or in connection with this Lease, the prevailing party is entitled to recover all costs and disbursements incurred, including such sums as the court may adjudge reasonable as attorney fees at trial and on any appeal of the suit or action, and in any bankruptcy case or proceedings. State's obligation under this section is subject to the limitations of Article XI, section 7 of the Oregon Constitution.

10.10 Exhibits: All Exhibits to which reference is made in this Lease are incorporated in this Lease by the respective references to them, whether or not they are actually attached. References to "this Lease" include matters incorporated by reference.

AGC0011970

10.11 Survival. Termination or expiration of the Lease will not extinguish or prejudice State's right to enforce the provisions of this Lease relating to indemnification, access to records, governing law, venue and consent to jurisdiction.

Lessee, by the signature below of its authorized representative, hereby acknowledges that Lessee has read this Lease, understands it and agrees to be bound by its terms and conditions.

STATE:
The State of Oregon, acting by and through the Oregon State Land Board and the Department of State Lands
775 Summer ST NE, STE 100
Salem, OR 97301-1279

Authorized Signature

Date

LESSEE:
Ash Grove Cement Company
Delaware Corporation
3737 N Port Center Way
Portland, OR 97217

Eileen Flink, Vice President
Signature/Title
(Note requirement below)

10-27-09
Date

Note: If Lessee is a corporation, partnership, limited liability company or other form of business entity, signer warrants that s/he has the authority to sign the Lease on behalf of such entity by resolution of its Board of Directors or equivalent, or through delegation of authority to the signer.

STATE OF Kansas)
) ss
County of Johnson)

The foregoing instrument was acknowledged before me this 27th day of October, 2009, by Eileen Flink (name of officer or agent of corporation), the Vice President (title of officer or agent) of Ash Grove Cement Company (name of business entity), a Delaware corporation (state or place of incorporation) (corporation, general partnership, limited liability company, etc.)on behalf of said Ash Grove Cement Company (corporation, general partnership, limited liabilty company, etc.).

NOTARY PUBLIC - State of Kansas
MELISSA S. RUSCH
My Appt. Exp. 10-17-12

Melissa S Rusch
Signature
My commission expires 10-17-12

AGC0011971

CERTIFICATE OF COMPLIANCE WITH OREGON TAX LAWS

Use the following if the Lessee is an individual I, the undersigned, hereby certify under penalty of perjury that to the best of my knowledge, I am not in violation of any Oregon Tax Laws.

Use the following if the Lessee is a corporation, LLC or similar entity I, the undersigned, hereby certify under penalty of perjury that I am authorized to act in behalf of the Lessee, that I have authority and knowledge regarding the payment of taxes, and that Lessee is, to the best of my knowledge, not in violation of any Oregon tax laws.

For the purposes of this certificate, "Oregon Tax Laws" means those programs listed in ORS 305.380(4) which is incorporated herein by this reference. Examples include the state inheritance tax, personal income tax, withholding tax, corporation income and excise taxes, amusement device tax, timber taxes, cigarette tax, other tobacco tax, 9-1-1 emergency communications tax, the homeowners and renters property tax relief program and local taxes administered by the Department of Revenue (Lane Transit District Self-Employment Tax, Lane Transit District Employer Payroll Tax, Tri-County Metropolitan Transit District of Oregon ("Tri-Met") Employer Payroll Tax, and Tri-Met Self-Employment Tax).

Signature: Eileen Flink

Date: 10-27-09

Printed Name: Eileen Flink

Title: Vice President

\\santiam\Documents\app\2009_03\42024-ML 2009 Lease Authorization.doc

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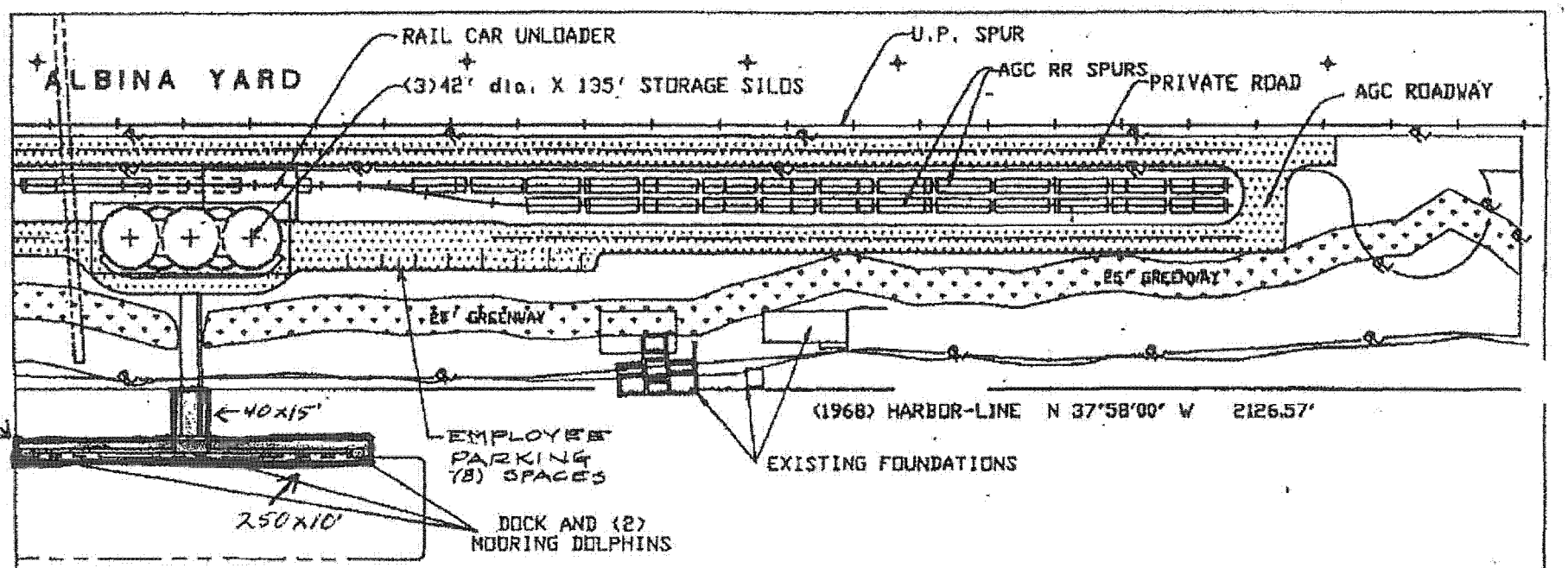


TE RIVER —— Lease area in red

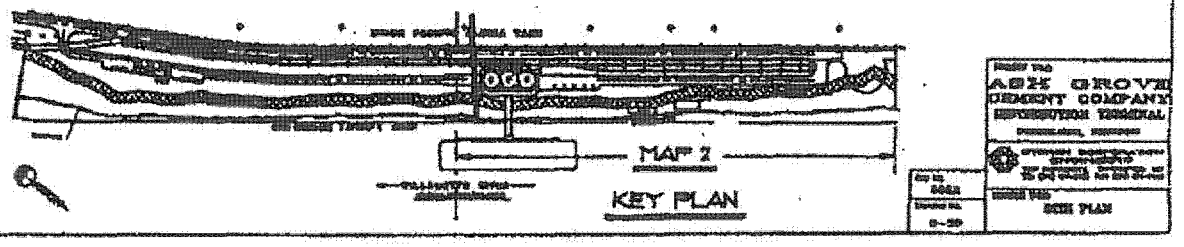
E PLAN LAYOUT

STRUCTURE @
ASH GROVE CEMENT
3737 N PORT CENTER

← Flow

LEASE AREA ML 42024

250 X 10 = 2500
40 X 15 = 600
3100 ft



AGC0011973

CERTIFICATE OF LIABILITY INSURANCE

10/1/2010

DATE (MM/DD/YYYY): 10/27/2009

PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.	
Lockton Companies, LLC-1 Kansas City 444 W. 47th Street, Suite 900 Kansas City MO 64112-1906 (816) 960-9000	**INSURERS AFFORDING COVERAGE**	**NAIC #**
INSURED 1322289 ASH GROVE CEMENT COMPANY ATTN: BOB DABLER P.O. BOX 25900 (913) 451-8900 OVERLAND PARK KS 66225	INSURER A: ZURICH AMERICAN INS. CO.	
	INSURER B: MIDWEST EMPLOYERS CASUALTY CO.	
	INSURER C:	
	INSURER D:	
	INSURER E:	

COVERAGES ASHGR01 FK

THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
A		GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS MADE X OCCUR X $750,000 DEDUCTIBLE X EACH OCCURENCE GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY PRO-JECT LOC	GLO3729057-06	10/1/2009	10/1/2010	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 300,000 $ 10,000 $ 1,000,000 $ 1,000,000 $ 1,000,000
A		AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS X HIRED AUTOS X NON-OWNED AUTOS X $750,000 DED.	BAP3729058-06	10/1/2009	10/1/2010	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ XXXXXXX $ XXXXXXX $ XXXXXXX
		GARAGE LIABILITY ANY AUTO	NOT APPLICABLE			AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	$ XXXXXXX $ XXXXXXX $ XXXXXXX
		EXCESS / UMBRELLA LIABILITY OCCUR CLAIMS MADE DEDUCTIBLE UMBRELLA FORM RETENTION $	NOT APPLICABLE			EACH OCCURRENCE AGGREGATE	$ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
A A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N: N If yes, describe under SPECIAL PROVISIONS below	WC3729056-06 $750,000 DEDUCTIBLE	10/1/2009	10/1/2010	X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ 1,000,000 $ 1,000,000 $ 1,000,000
B		OTHER SELF INS EXCESS W.C. -AR, KS, MO, MT, NE, OR, WA	EWC005386	10/1/2009	10/1/2010	1 MILLION EXCESS WORK COMP. & EMPLOYERS LIABILITY -$750,000 SIR	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS
RE: LEASE NUMBER 42024, ML, STATE OF OREGON IS ADDITIONAL INSURED FOR GL AND AL, WHERE REQUIRED BY WRITTEN CONTRACT, SUBJECT TO POLICY TERMS AND CONDITIONS.

CERTIFICATE HOLDER

10700814

STATE OF OREGON
DEPARTMENT OF STATE LANDS
775 SUMMER STREET, SUITE 100
SALEM OR 97301

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2009/01)
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For questions regarding this certificate, contact the number listed in the 'Producer' section above and specify the client code 'ASHGR01'.

Oregon
John A. Kitzhaber, M.D., Governor

Division of State Lands
775 Summer Street NE
Salem, OR 97301-1279
(503) 378-3805
FAX (503) 378-4844
TTY (503) 378-4615

State Land Board
John A. Kitzhaber
Governor
Bill Bradbury
Secretary of State
Jim Hill
State Treasurer

March 21, 2000

JV02\ML-5146
GLENN DOLLAR
ASH GROVE CEMENT COMPANY
12929 N RIVERGATE
PORTLAND OR 97203

RE: State Waterway Lease ML-5146

Old Boathouse
@ Rivergate

Dear Mr. Dollar:

The Division of State Lands received your request to cancel state waterway Lease ML-5146. We received your photos of the site on March 15, 2000, revealing that the leasehold area has been restored to its original natural condition. State waterway lease ML-5146 is hereby canceled effective March 31, 2000. No further payments are required. You are not authorized to make any use or exercise any control over the submerged lands.

If you have any further questions regarding the Division's programs, please call me. Thank you.

Sincerely,

Jerry Hedrick
Property Manager
Easements and Waterway Leasing

Jjv\leasess\ Cancel Lease Approved.doc

c: Faye Pitts, Accounting
County Assessor's Office

AGC0011975

GENERAL RULES, REGULATIONS & RATES FOR VESSELS BERTHING
SOUTH ASH GROVE CEMENT TERMINAL,
PORTLAND, OREGON

Portland, Oregon
January 27, 2011

INTRODUCTION

This publication is addressed to Owners, Charterers, Masters and Agents (hereinafter referred to as "**Users**"), who are engaged in or who are intending to utilize the **ASH GROVE CEMENT**, (hereinafter referred to as "**AGC**") Portland, OR dock or facilities for the purposes of lay berth operations.

The information, which is presented in this manual, is intended to acquaint you with the conditions, services, facilities, as well as the Rules and Regulations of **AGC**, applicable to the dock, terminal, and facilities. While rules and regulations are issued with the aim to achieve optimal safety for personnel and property, they cannot take into consideration all possible situations. Users are therefore requested to use their best judgment when conditions occur which are not covered herein. Furthermore, Users are advised that the information, as well as the Rules and Regulations provided herewith supplements, but does not supersede, neither does it circumvent those which are published by state, federal, or other governmental agencies.

All information and data supplied is furnished as a courtesy from available records that are deemed to be accurate. **AGC**, however, does not accept liability or responsibility for the contents, and recommends further confirmation by users of any portion of these Rules and Regulations, particularly when involving vessel operations. **AGC** reserves the right to alter, amend, or make additions to this document without notice.

Users are reminded that **AGC** will continue to do their utmost to protect the environment from all possible pollutants, and we request vessels' Masters and crews to cooperate with us to the fullest in keeping the surroundings clean and safe.

ASH GROVE CEMENT COMPANY

AGC0011976

THE DEFINITIONS AND EXPLANATIONS THAT APPLY TO THESE RULES AND REGULATIONS ARE AS FOLLOWS:

AGC:	ASH GROVE CEMENT COMPANY and collectively, its representatives, officers, directors, agents and employees.
Arrival at berth:	The time at which an incoming vessel moors to the dock, calculated from the time the first line is secured to the dock.
Berth/Dock/Wharf:	The berth area adjacent the dock, including mooring facilities used by the vessel while docked.
Day:	One calendar day, commencing at midnight for a period of 24 hours.
Dockage:	The charge assessed against a vessel for berthing at the AGC dock.
Draft:	Terminal warrants a minimum draft of **33 ft fresh water (10.06 m)** available at discharge port/berth.
Environment:	Shall mean soil, surface waters, ground waters, land, stream and sediments, surface or subsurface strata, ambient air, indoor air and indoor air quality, interior and/or exterior of any building or improvement and any environmental medium.
Environmental Condition:	Shall mean any condition of the environment that results from any person's use, occupation, and/or operation at a facility of AGC.
Facility or Facilities:	The term "Facility" or "Facilities" when used in these Rules means the entire property or properties owned by AGC.
Person or Person's:	Shall mean any individual, corporation, partnership, association, joint stock company, trust, unincorporated organization, joint venture, court, government, political subdivision or agency thereof.
Property:	Means the entire property or properties owned or leased by AGC, including physical property, equipment, either leased or owned, as well as any improvements to the property.
Terminal:	Means AGC's terminal in Portland, Oregon.
User:	A User of the facilities, terminal, property owned, leased and/or controlled by AGC shall include any vessel or person using, transiting, providing services to any party, and or working on any of AGC's properties, facilities or equipment.
Vessel:	Vessel includes within its meaning every description of water craft or other artificial contrivance whether self-propelled or non self-propelled, used, or capable of being used, as a means of transportation on water, and shall include in its meaning the owner thereof.

AGC0011977

1.0 GENERAL RULES AND REGULATIONS

1.1 Consent to Terms.

The use of AGC terminal facilities shall constitute a consent to all of the terms and conditions of the provisions contained herein and all amendments and reissues, and further evidences an agreement on the part of all vessels and other users of such terminal facilities to pay all charges as agreed upon prior to use (if requested to do so) and be governed by all Rules and Regulations shown herein, and in addition, if applicable, to the rules and regulations issued by The Port of Portland and any governing federal, state, county or city agencies.

1.2 Insurance

a) **General Requirements** – All policies of insurance must be written with companies acceptable to AGC, but generally insurance should be placed in a company or companies having a current Best's General Policyholders Rating of A+ or A or their equivalents.

Original Certificates of Insurance, which are signed by the licensed agent and which provide evidence that the required coverages are current and in place, shall be faxed to 503-286-4987 and also mailed to: Ash Grove Cement Company, 3737 N. Port Center Way, Portland, OR 97217. Failure to supply such certificates within 10 days following policy expirations may null and void any agreements for facility use. See subsection (b) under this Section.

Each policy of insurance shall include a provision that at least (30) days written notice will be given to AGC before limits and scope of coverage are materially altered or insurance protection is cancelled.

The insurer shall agree to waive all rights of subrogation against AGC, its officers, officials, employees, and insurers for loses arising from the named insured's use of AGC's facilities.

~~The facility user shall agrees that none of its subcontractors will be allowed to commence work on AGC's property until (a) the subcontractor has obtained all similar applicable insurance, or (b) the facility user has provided coverage for the subcontractor.~~

The facility user may purchase an umbrella liability policy to provide the limits of coverage specified, so long as the umbrella provides coverage at least as broad as specified for the individual policy and the umbrella applied directly above the individual policy, without gap in limit of liability.

The facility user's insurance policies shall include endorsements providing that AGC, its officers, officials, and employees are to be covered as primary and non-contributory additional insured, with respect to liability arising out of its use of AGC's facilities. Except for the proven negligence of AGC, the coverage shall contain no special limitation on the scope of protection afforded.

The facility user's insurance coverage shall be primary insurance, regardless of policy language to the contrary. All premiums and deductibles are the responsibility of the facility user.

b) **Endorsement Form** See "Endorsement" Form in **Appendix 1** which shall supplement the Certificate of Insurance.

AGC0011978

c) **Required Coverage Types and Minimum Limits** (See note). Each and every company and any subcontractor thereto, including, but not limited to steamship agencies, ship chandlers and/or vendors in any category, service companies, repair contractors, surveyors, cargo movement companies, cleaning companies that conducts business either across or within **AGC** property shall keep in full force and effect, the following coverage. The coverage designated by an asterisk (*) must name **AGC** as additional insured, and must contain a subrogation waiver in favor of the **AGC:**

*1. Commercial General Liability – with limits of $1,000,000, combined single limit per, occurrence, including but not limited to coverage for public liability, bodily/personal injury, advertising injury, property damage premises coverage, contractual liability for those liabilities assumed by the user if the Facility herein, cross liability and/or severability of interest, products and completed operations, protective liability/independent contractors/work sublet, and with the "watercraft exclusion" deleted.

*2. Pollution Liability - $2,000,000 combined single limit, for any one occurrence, for on-site and off-site bodily injury and property damage, cleanup cost and the unloading and loading of the product. (May be included as endorsement to CGL policy).

*3. Business Automobile Liability - Automobile liability, including coverage for all owned, non-owned and hired vehicles, with a minimum combined bodily injury and property damage limits of $1,000,000. Coverage must extend to "any auto".

NOTE: All vehicles entering Port premises may be required to show proof of automobile liability insurance as required by the State of Oregon. Vehicles not in possession of proof of insurance will not be permitted to enter Port premises until proof of insurance coverage is produced.

4. Workers' Compensation Coverage - (including U.S. Longshoremen and Harbor Workers Compensation Act coverage if workers are working aboard a vessel and/or performing Longshore duties) at statutory limits. In addition, Jones Act coverage (if applicable) is required in an amount not less than $1,000.000. Sole proprietors may be exempt (See Appendix 1)

*5. Employer's Liability – Insurance with limits no less than $1,000.000.

6. Excess or Umbrella Liability Insurance. Coverage in excess of the limits provided in the above-required primary coverages with a minimum combined single limit for Bodily Injury and Property Damage of at least $5,000,000 per occurrence.

Note: **AGC** reserves the right to increase the required limits when it deems necessary due to increase exposure on the part of the facility user.

1.3 Hold Harmless and Indemnification.

a). Each person using the terminal and each person performing any service on the property of **AGC** shall indemnify, save and hold harmless **AGC** including their respective officers, employees, agents successors, and assigns, from and against any and all claims, actions, damages, liabilities, penalties, judgments, costs and expenses, including without limitation reasonable attorney's fees and litigation cost and expenses, incurred or asserted in connection with loss of life, personal injury, and damage to the vessel, cargo or property (including property of such person using a the facility or performing a service on the property of **AGC**), or any violation of any federal, state or local law, rule or regulation, which is caused in whole or in part by any such person using the facility or performing a service on the property of **AGC** or such person's, employees (including loaned employees), agents, contractors or invitees of such persons, except that such person shall not be responsible for any damage, loss or injury occasioned by reason of **AGC's** gross negligence or willful misconduct. (See **Appendix 2**)

AGC0011979

b) **Environmental Indemnity** – The indemnity provided in the preceding paragraph shall include and extend to any and all claims, suits, actions, damages, liabilities, penalties, judgments, cost and expenses, including without limitation reasonable attorney's fees and litigation expenses, incurred or asserted in connection with any environmental damage, clean-up, removal, response, assessment, or remediation required by or resulting from, any environmental condition or violation of any federal, state or local Environmental Law (as defined herein) occurring in connection with any person's use of the facility or performance of any service on the property of **AGC**. As used herein, "Environmental Law" means any statute administered by, or rule or regulation promulgated by, the U. S. Environmental Protection Agency or the Oregon Department of Environmental Quality, or any other state or local authority, or any successor thereof.

c) **Waiver of Subrogation** – Each person using the facility and each person performing any service on the property of **AGC** waives all claims it may have against **AGC** for injury, loss or damage covered under any insurance policy, and each person shall cause its insurance carriers to waive any right of subrogation with respect thereto and to so notify **AGC.**

d) **Exception to Liability of Steamship Agents** - Nothing contained herein shall be construed to impose any liability upon any steamship agent for any damage caused by a vessel to the property of **AGC.**

1.4 Legal Expense

In case suit shall be brought by **AGC** to collect any monies due, enforce any provision, or remedy any default under these Rules and Regulations by users of the terminal or performing any service at the terminal, and **AGC** prevails, such user shall pay all expenses incurred by **AGC** in connection with such suit, including all court costs, attorney's fees and expenses.

Losses or Damages

AGC is not and shall not be held responsible or liable for demurrage, damages for delay, or loss of dispatch time incurred by any vessel or charterer thereof for any causes whatsoever and howsoever caused. **AGC** is not and shall not be responsible for marine loss or damages to vessels moored at their terminal facility. In all other matters **AGC** shall not be responsible for any delay or damage of any nature, however or wherever arising out of causes beyond their control.

1.6 Berth Applications and Arrangement

All vessels, or their agents, charterers or owners, desiring a berth at **AGC** shall make an application for such berth on the prescribed form such to show the anticipated dates and times of arrival and departure and nature of any operations that are to be conducted while laying at the terminal.

Incorporated within the Berth Application, the vessel, its owners or agents, shall advise therein the name of the Protection and Indemnity Association (P & I Club) which affords the vessel indemnity coverage as well as the name and telephone number of the local legal representative thereof, knowledgeable with regard to such coverage.

The signed Berth Application and berth assignment shall constitute a contract between **AGC** and the vessel, or it's agent, charterers or owners, subject to the rates, rules and regulations and provisions as contained herein. **AGC** or their agent, for the convenience of the vessel, agents, charterers or owners will accept Berth Applications by facsimile upon the mutual and accepted understanding that the electronic transmission of the signed Berth Application constitutes a contract as heretofore stipulated.

The signed Berth Application shall further constitute acknowledgment by the vessel, agent, operators, charterers, managers or owners that the Master of the vessel is in receipt and has full knowledge and understanding of the Rules and Regulations as contained herein.

AGC0011980

Any damage caused by the vessel to the wharf, dock or any installation or equipment which is the property of **AGC**, whether it be through the incompetence or carelessness on the part of the pilot or officer of the vessel carrying out operations or for any other reason, shall be the responsibility of the Master and of the owners of the vessel causing the damage. **AGC** shall have the right to detain the vessel until it has received satisfactory guarantee for the amount of damage caused or a reasonable estimate thereof.

(See Berth Application in **Appendix 3**)

1.7 Payment of Charges

Unless otherwise expressly agreed, terms are cash, with all charges being due and payable as they accrue. **AGC** requires prepayment of estimated charges in advance which shall be deposited with a designated Marine Agents business office, in a sum determined by **AGC** for estimated services including, but not limited to dockage and services and facilities. All charges in excess of the deposit are due and payable prior to the sailing of the vessel from the terminal. Use of the terminal and its facilities may be denied until such advance payment is made. A late charge or interest of five percent per month will be applied to all invoices payable thirty (30) days and added to the unpaid balance for each month or portion thereof that the balance remains unpaid. All invoices over ninety (90) days past due will be assigned to an attorney for collection, attorney's fees, interest for payment delay, and other recovery costs allowable under the statutes. (See Section 1.3 herein). Presentation of invoices for dockage and services rendered to agents, owners etc., is done as a matter of accommodation and convenience, and shall not constitute a waiver of the lien for charges furnished the vessel for which the Maritime Law provides.

1.8 Vacating Berth

Should any vessel fail to vacate the berth when ordered to do so, a Dock Demurrage charge as specified in Section 5.0 of these Rules and Regulations will be assessed against the vessel for each hour, or fraction thereof, that the vessel remains at the berth after delivery of the order to the vessel.

Assessment of additional dockage or dock demurrage charges shall not affect the right of **AGC** to remove such a vessel at cost, risk and expense of the vessel's agent, charterer and/or owner/operator.

1.9 Inspection

Each user of the terminal has the affirmative duty of carefully examining such facility and the appurtenances and access thereto prior to its use and to report any damage thereto to **AGC** in writing. Each user of the terminal warrants that such user has examined and knows the condition of the terminal, the appurtenances, and access thereto and that the terminal, the appurtenances and access thereto are in good order and repair and broom clean.

1.10 Repairs and Maintenance

Each user of the facility shall not permit any undue accumulation of dunnage, trash, rubbish or other refuse, and shall keep all such refuse on board in proper container and periodically shall cause such refuse to be removed from the property of **AGC** and, upon completion of such use, shall leave the property to **AGC** in good order and repair and broom clean. Each user shall of the facility shall promptly repair, at such user's own expense, any damage (including damage caused by overloading) to such facility and other property of **AGC** resulting in whole or in part, directly or indirectly, from the use of the terminal or property caused in whole or in part by such user or the employees (including loaned employees), agents, contractors and invitees of such user, regardless of fault.

AGC0011981

Default

If a user of the facility fails to make any repairs, allows rubbish to accumulate, or fails to return the facility to **AGC** in good order and repair and broom clean, then **AGC** may clean up and make such repairs, and the user of the facility shall pay **AGC** the costs incurred to make such repairs and/or clean up plus 50% of such costs.

Bunkering/Lightering Operations (Barge):

NOT ALLOWED

Bunkering operations are permitted while vessels are berthed at **AGC** terminal, however, such operations are at the discretion of the Marine Terminal Manager and shall not interfere with terminal operations. Further such operations shall only be undertaken within strict accordance with federal, state and local regulations.

When such operations are conducted at the **AGC** terminal, the person(s) arranging for bunkering and/or lightering is responsible for and must arrange to have a tugboat standing by to provide for movement of the barge/lighter within two hours of notification.

AGC terminal accepts no responsibility and/or liability whatsoever with respect to bunkering operations, or, by having granted permission for such operations, the management of such bunkering operations. In the event of operational mishaps during such operations (including delivery by tank truck) which cause discharge or loading operations to cease, then all time lost as occasioned thereby, shall be for the account of the vessel. Further, during such time as cargo operations are ceased (including time caused by weather delays) the time shall be charged as detention at the hourly rate as specified herein. Additionally, during such period(s) dockage shall be charged the vessel and applicable whether or not special arrangements for dockage have been agreed with the Principal. During such period(s) laytime shall cease.

Receiving Fuels, Lubricants or Other Hazardous Materials by Tank Truck.

NOT ALLOWED

Where applicable same provisions as specified in Section I, Sub-section 1.12 shall apply. Tank trucks, tank trailers, gear trucks or other vehicles, apparatus or equipment when used for the transportation of flammable liquids within the jurisdiction of **AGC** terminal shall comply with the following requirements:

(a) Tank trucks, tank trailers and/or gear trucks operating in the jurisdiction of **AGC** terminal shall be in compliance with all U.S.D.O.T. standards in effect at that time. LP gas trucks shall be considered to be in compliance with this section while permitted by a valid "Form 4 Card" issued under the rules of Docket 1 of the LP gas division of the Texas Railroad Commission.

(b) Every tank truck, tank trailer and/or gear truck shall have a conspicuous sign on each side and rear composed of (4) four inch letters reading "FLAMMABLE" and a sign reading "NO SMOKING" composed of four (4) inch letters installed at the draw-off valves.

(c) The responsible company or owning company name or corporate symbol is to be permanently displayed on each side of the tank vehicle.

(d) Trailers shall be firmly and securely attached to the vehicle drawing them with appropriate safety chains.

(e) No tank or any part of any tank (not to include non-liquid-carrying appurtenances) shall extend beyond the chassis frame of the equipment being used to transport the flammable liquids. Draw-off valves or faucets which project beyond the frame shall be adequately protected.

(f) Vehicles transporting flammable liquids shall not be equipped with artificial light of any kind other than electricity. All lighting and low tension wires shall be in conduit or seal-tight flexible conduit. Suitable fuses or other automatic overload protective devices shall be installed in all lighting and low tension circuits, except the ignition and starter motor circuits. All electric lights shall be adequately protected. All wiring shall be supported and protected from mechanical injury, chaffing and exposure to

AGC0011982

contact with oil, grease, gasoline or other compounds that tend to deteriorate the insulation, and shall be so located as to avoid damage to insulation from heat.

(g) Each tank truck, tank trailer and/or gear truck shall be equipped and maintained with at least two (2) approved-type hand fire extinguishers suitable for extinguishing flammable liquid fires. They shall be kept in good operating condition at all times and located in an accessible place on the vehicle. Sufficient drip pans and absorbent shall be available at all times.

(h) Every vehicle shall be equipped with a reliable system of brakes, lights and horn which shall conform to the laws of the State governing such vehicles.

(i) Smoking is prohibited on tank trucks at all times and no smoking or fire shall be within fifty (50) feet of same while loading or unloading.

(j) No hot work shall be conducted on the vessel during any operation involving the transfer of flammable liquids.

(k) Draw-off valves shall be equipped with a metal tag, plate or label on which is to be displayed, in letters not less than one-half (1/2) inch in height, the name of the particular product in the tank with which such draw-off valves are connected.

(l) Tank trucks will no be permitted to operate on **AGC** terminal property unless they are in proper repair, devoid of accumulation of grease, oil or other flammables and free of leaks.

(m) The driver, operator or attendant of any tank vehicle shall not leave the vehicle while it is being filled or discharged. Delivery hose, when attached to the tank vehicle, shall be considered to be part of the tank vehicle.

(n) Motors of tank vehicles shall be shut down when making or breaking hose connections. If loading or unloading is done without the use of a power pump, the tank vehicles or tractor motor shall be shut off through-out such operations.

(o) The cargo tank shall be bonded to the fill pipe when loading. The bond-wire connection shall be made prior to commencing operations and shall be maintained in place during the entire operation.

(p) During loading and unloading operations tank trucks shall have approved parking brakes in operation.

Accidental Discharge of Dangerous Cargo or Oil

In the event that the vessel, vessel agent, or user has any knowledge of the accidental discharge of dangerous cargo or oil, in any quantity, into the waters under the jurisdiction of the Port Authority, such vessel, vessel agent, or user shall immediately notify, by the quickest means available, the U.S. Coast Guard in accordance with the provisions of the Federal Water Pollution Control Act, and further to notify parties in accordance with all other provisions of federal, state, or local law. The receiver must also be notified. It shall be incumbent of the vessel, vessel agent, or user to have immediately available, or to have made arrangement to have immediately available, containment equipment that will prevent the spread of any accidental spill or discharge of dangerous cargo or oil.

1.15 Hot Work

Not permitted without prior AGC written approval (includes exchange of email authorization) and then only

Welding, oxyacetylene, electric or other "hot work" at **AGC** terminal facility is permitted subject to the conditions set out by applicable codes and industry standards and with all applicable federal, state and local laws, rules and regulations. Hot work will not be permitted when conditions are deemed to be hazardous to **AGC** terminal facility. Suitable fire extinguishing equipment shall be available in the hot work area ready for instant use.

1.16 Visitors, Motor Vehicles and Parking

The speed limit of all motor vehicles on **AGC** property is 10 mph. Flagrant or persistent violators will be restricted from the premises. No vehicle is permitted on the dock except as authorized by the Terminal Manager. Trucks, trailers, and other motor vehicles shall not remain or park upon the dock except when actually waiting at shipside to load or discharge merchandise, ships supplies or passenger and are attended by a driver for pick-up and deliveries only. Any vehicle left unattended on the dock or in the dock access ways will be removed at the owner's expense.

AGC0011983

Parking is permitted only in the designated areas. Illegally parked vehicles on the dock will be removed at the owners' expense. All vehicles should be locked when parked. **AGC** will not be responsible for loss or damage to vehicles while being driven or while parked on the terminal premises.

Visitors will not be allowed on the premises unless they are authorized and Terminal Management has received a list of authorized visitors and a crew list. Visitors are not permitted to drive onto the dock unless authorized.

1.17 Amendments

Any amendments to Rules and Regulations shall be in writing, referencing section and paragraph numbers as applicable, and shall be effective immediately upon issuance.

1.18 Agreement to Rules and Regulations

Although users are requested to sign and return one coy of these Rules and Regulations, failure to sign shall not excuse user from complying with all terms and conditions set forth nor from any and all liabilities, duties and responsibilities.

2.0 VESSEL RESPONSIBILITIES and INFORMATION.

Regulations

Users of the facility shall be responsible for compliance with all laws, regulations, rules and ordinances of Federal, State and local authorities. Failure to comply with such laws will result in denial of berth or use of the facility and terminal at no liability to **AGC** and/or shifting of the vessel from berth, at the vessel's expense and/or disclosure of the compliance to appropriate governmental authorities. This part also applies to United States Coast Guard and Port of Portland regulations, as well as limitations and rules applying to the Columbia River navigation channel.

Use of Anchors

There is normally no need to use anchors when berthing at **AGC**. Should the Master of a vessel find it necessary, however, he may use anchors unless otherwise notified through navigational publications or signs that restrict the use of same. Anchors used during docking operations should be hawsed whilst the vessel is safely berthed alongside the terminal dock.

Mooring Arrangements

In order to be able to witness berthing and unberthing operations, **AGC** or their agent, requires a minimum of four (4) hours notification prior to arrival/sailing.

All vessels and barges utilizing the terminal shall be solely responsible for providing, maintaining and tending their mooring lines, and users shall indemnify and hold **AGC** harmless from all liability, cost or damages resulting from user's, vessel's, or barge's failure to comply with this provision. Vessels must use sufficient number of mooring lines in good condition, taking adequate measures for sudden wind changes and vessel movement such as surging, etc.

Towing Pendants

In case circumstances should arise that would require prompt movement of the vessel from the berth, all vessels, immediately after mooring, shall rig and continue to monitor towing pendants or fire warps constructed of wire or other nonflammable material which shall be accessible to tugs in case of emergency.

AGC0011984

Dumping into Waters of Ballast, Bilge Water, Slops, and Garbage

The discharge, overflow or dumping of oil, oily wastes, grease, plastics, trash or other objectionable matter into the water is prohibited by Federal, State, City and **AGC** regulations, laws and ordinances. When disposing of wastes potentially harmful to the environment, all U.S. Coast Guard Regulations, State, Local and City codes pertaining to waste reception facilities, including but not limited to Annex 1 (oil) and Annex 11 (chemicals) of MARPOL 7-31-78 shall be strictly observed.

Tank Cleaning/Gas Freeing NOT ALLOWED

Cleaning of vessel's tanks while at **AGC** is only allowed under certain conditions:

a. No hazardous vapors may be vented to the atmosphere.
b. Slops must be contained onboard or pumped to tank truck and/or barges.
c. Tank cleaning must not interfere with day-to-day terminal operations.
d. All U.S. Codes, Rules and Regulations are to be strictly obeyed.

Garbage Removal

All vessels docking at the **AGC** terminal shall comply with all applicable U.S. Public Health Service regulations. APHIS garbage as defined in Annex V of MARPOL 73/78 is now regulated by the Department of Agriculture and a U.S. Coast Guard Certificate of Adequacy issued to **AGC.** Upon appropriate request from the vessel or its agent, a contractor will be available to remove and dispose of all such APHIS garbage. Vessels are at liberty to make their own arrangements for garbage removal provided a certified and approved contractor is used.

All non-APHIS medical and hazardous wastes may be removed and disposed of by appropriate request from the vessel or its agent to West Coast Marine Cleaning.

Should any vessel and/or user of the **AGC** facility abandon any form of debris or garbage, drums, boxes or other containers, and not remove same within 24 hours notice by **AGC** to do so, same will be removed by **AGC** (its employees, agents, or contractors), and the cost of such removal plus a 50% (fifty) surcharge shall be invoiced and paid by the vessel and/or user to **AGC** within 30 days of invoice of same.

Stores and Supplies

When prior arrangements are made with the Terminal Manager, stores and supply trucks will be provided access to the dock. Any spill on the dock apron, in the water or on the terminal premises, caused by the vessel or its suppliers or receivers, will be cleaned up by **AGC** or it's appointed contractor. The cost of such clean-up and disposal will be charged back to the vessel at cost plus 25 percent administrative fee.

Air Pollution

The blowing of tubes or any other pollution of the air by vessels while docked at **AGC** is strictly prohibited.

Fire and Fire Emergency Signal

Fire in the vicinity will result in an immediate shutdown of any operations, and vessels will prepare to vacate the berth.

In the event of fire occurring on board a vessel at the terminal berth, such a vessel should sound no less than five short followed by one long blast of its whistle, horn or siren as an alarm indicating fire on board or in the vicinity of the wharf. Such a signal shall be repeated at intervals to attract attention. It is hereby noted that this signal is not a substitute for alternative methods of reporting

AGC0011985

a fire, required by law or as appropriate under the given circumstances, but as an additional means of reporting a fire.

As soon as possible after the foregoing signal, a verbal report must be given to the terminal advising the type of fire, assistance needed and what actions have been taken. **AGC** will not attempt to assist fire fighting onboard a vessel unless such assistance is specifically requested. Vessel Masters should bear in mind that the ability of the terminal to assist is limited to the supply of water to the vessel's fire system. Additional assistance may be called from Municipal Fire Departments.

Visitors / Vessel Crews

Visitors to vessels, including service companies and delivery services, must be registered in the form of a "Gate List" (Vendor List) to be received at the time of submission of the Berth Application and forwarded to **AGC** prior to the vessel arrival at the terminal. Deliveries and or personnel movements within the terminal are restricted and persons and companies, other than those registered on the aforementioned documents will not be permitted, under any circumstances, to enter the terminal. Additions to the Gate and/or Vendor List may be subsequently made to **AGC** in writing.

Refusal of Entry – AGC maintains the right to reject entry or eject from the terminal any individual or vendor at **AGC**'s sole discretion, regardless of individual's relationship with other Users. Specific refusal of entry will be implied for the following:

- Name not on the Gate List – **No exceptions.**
- No Picture Identification.
- No proof of Employment.
- No vehicle license or vehicle number
- Crewmember not on the Gate List.
- Does not meet **AGC** insurance requirements.
- No last minute arrivals – **No exceptions.**

Taxis – Taxis are neither permitted nor allowed in **AGC**'s facility at anytime – No **exceptions.**

Bicycles – Riding of bicycles in **AGC**'s property is prohibited.

2.12 Intoxicating Beverages or Narcotics

Possession or consumption of intoxicating beverages or narcotics is prohibited on **AGC** property. If a person is exhibiting signs of being alcohol/drug impaired they will not be allowed into the facility, whether or not it is a person coming off a vessel (barge, tugboat, ship) or making entrance through the security gate, until such times as the signs of impairment are no longer are evident.

2.13 Gangways

A gangway is provided by **AGC** for use by a vessel. Any damage sustained, recovery costs, etc., will be assessed against the vessel.

The vessel will be responsible for the welfare and maintenance of any gangway and/or accommodation ladder while in use at **AGC**. Safety aspects of gangway usage should consider but not be limited to the following:

- Equipped with stanchions that are stable, bolted or otherwise safely secured at the base in order to prevent stanchion from pulling out.
- Provide upper and lower manropes through stanchions on each side.
- Fitted with cleated stringers or duckboards.
- Equipped with safety nets below.
- Keep in good condition, safely rigged and secured.
- Checked regularly for changes in elevation due to draft of tide.
- Adequately lighted at night.
- Clear of any obstacles, including lifting or support bridles.

AGC0011986

2.14 Security Guard Service

At User's request, AGC can provide security guard service for a fee outlined in **Exhibit A**. The security guard will be under the direction of the Terminal Manager and will control transit through the terminal and ingress and egress to and from the vessel of all personnel and/or vehicles, delivery trucks, etc. The vessel will provide the terminal with crew, services and vendor lists that the vessel's Master will sign. The Terminal Manager has the sole discretion as to transit rights to or from the vessel that will not be unreasonably withheld.

3.0 JOINT SHIP-TERMINAL RESPONSIBILITIES

3.1 Safety

Paramount is the fact that the responsibility for strict adherence to safety is common to both vessel and terminal. Operations on board the vessel are the responsibility of the Master, and operations on the shore and within the terminal facility are the responsibility of **AGC**. It is a joint responsibility to make sure that all Rules and Regulations provided herein, as well as laid down for each individual vessel operator, are followed without deviation. Any unsafe acts or violations or procedure that could be detrimental to safe operations must be brought to the attention of the other party immediately.

Protective Equipment

All personnel entering the terminal facility and particularly the dock and terminal operating areas must wear personnel protective equipment consisting of the following:

a. Hard Hat
b. Safety Glasses.
c. Goggles when working in identified goggle areas or participating in activities otherwise requiring goggles.
d. Ear plugs when working in identified earplug areas or participating in activities otherwise requiring earplugs.
e. Shirts and long pants are to be worn.
f. Footwear that has a substantial sole, a heel and substantial upper, such as leather. Tennis shoes, sandals, cloth-like, or shoes with vent holes are not acceptable.

There are 'no exceptions' to requirements e. and f. above. Exceptions to requirements a., b., c., and d. above are as follows:

Except when posted, inside buildings, control rooms or enclosed vehicles. Or except when posted, walking from the parking lot adjacent to the dock to the terminal administration office or vice-versa.

Enforcement of the safety requirements is the responsibility of all terminal operations personnel. In the event a person is not wearing the required personnel protective equipment, the following guidelines will be followed:

a. Ask the person to comply with the requirements.
b. Advise non-vessel personnel to leave the area until such time as they have the appropriate personnel protective equipment.
c. Advise vessel personnel to return to their vessel until such time as they have the appropriate personnel protective equipment.
d. Individuals who refuse to cooperate should be reported to the Terminal Manager or shift foreman and will be escorted off terminal premises by terminal security.

Employers or the individuals themselves will provide personnel protective equipment. The Terminal Manager or shift foreman may, at their discretion, provide this equipment if warranted by the circumstances.

AGC0011987

Dock Obstruction

It is in the best interests of both parties not to cause undue obstruction of the dock area with articles or materials that are not related to the business at hand. This particularly applies to vehicles that may prevent access to the dock area by emergency vehicles.

4.0 **SCHEDULE OF CHARGES**

4.1 A Schedule of Charges is shown in Exhibit A. (Separate attachment)

4.2 **Request to Vacate**

Any vessel requesting the use of AGC dock for the purpose of lay berth shall do so with the full understanding and agreement that such use is and be subject to and subordinate to any usage of the facilities by AGC and shall not interfere with AGC regular marine traffic or terminal operations nor violate the Rules and Regulations contained herein.

Upon receiving four (4) hours notice for ships, and two (2) hours notice for barges the subject vessel shall, at its own expense, vacate the berth. Any vessel failing to comply with such notice shall be subject to a charge of ~~$1,000.00~~ (one thousand U.S. Dollars) per hour or pro rata thereof; from the time notice expires until the dock has been vacated. Further, such vessel shall also be responsible for all lost time accrued against the waiting vessel and/or operation or to the fullest extent of any financial loss incurred by AGC.

and agreement

ACKNOWLEDGEMENT OF RECEIPT BY USER
and agreement to

Acknowledged receipt of the above Rules and Regulations for the use of AGC terminal facilities.

South

Signed: _____

Title: GM

Date: 4/1/12

Berthing will be allowed from 4/1/12 through 3/31/14 unless parties agree otherwise in writing. Absent urgent matters, AGC will provide at least 90 days notice to vacate the berth.

Monthly fee is REDACTED /month unless otherwise agreed upon.

AGC0011988

INSURANCE COVERAGE ENDORSEMENT.

It is agreed that the Named Insured's Commercial General Liability policy will:

Name **ASH GROVE CEMENT** and affiliated corporations(s) and their respective directors, officers and employees as additional insureds as their interest may appear;

Be primary and noncontributory with any insurance maintained by **ASH GROVE CEMENT**;

Provide a waiver of subrogation in favor of **ASH GROVE CEMENT;**

Contain a severability of interest provision in favor of **ASH GROVE CEMENT**;

It is agreed that the Named Insured's Automobile Liability policy will:

1) Provide a waiver of subrogation in favor of **ASH GROVE CEMENT;**

2) If work includes transportation of dangerous or hazardous materials, including fuel and oils used in the vehicle, the policy shall include without limitation, coverage for risks of transportation of dangerous or hazardous materials, including overturn and upset.

It is agreed that the Named Insured's Workers' Compensation and Employers' Liability policy will:

☐ My Company is exempt from the following because I am a Sole Proprietor. _____
Initials

Provide a waiver of subrogation in favor of **ASH GROVE CEMENT;**

If the Named Insured leases or uses temporary labor, the Alternate Employer Endorsement is included.

Include U.S. Longshoremen and Harbor Workers Compensation Act coverage.

Include the Jones Act coverage (if applicable).

Insurance Company: Durham and Bates Ins.

Authorized Representative: _____
Print Name.

_____
Signature.

4/1/12
Date.

AGC0011989

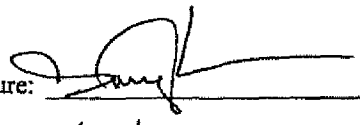
RELEASE AND INDEMNITY AGREEMENT RESPECTING ENTRY ONTO PREMISES OF ASH GROVE CEMENT COMPANY

As a condition of entry onto the premises of Ash Grove Cement Company, vessels in its custody, control or charter, wharf docks, piers or any other locations outside the premises, You agree RELEASE and INDEMNIFY Ash Grove Cement Company ("AGC"), and its Affiliates. As used in this Agreement, the term "You" includes all of your employees, agents, partners, contractors, subcontractors, invitees and contract laborers and the term "Affiliates" shall include any affiliate, subsidiary, parent or related corporation, director, officer, employee, agent, contractor, subcontractor, or underwriter. The terms "You" and "Affiliates" are intended to have the broadest possible legal meaning.

You, on Your own behalf and on behalf of Your Associates, agree to RELEASE, and HOLD HARMLESS AGC and its Affiliates, and to INDEMNIFY and DEFEND AGC, and its Affiliates, from any and all liability for claims, suits, losses, damages, liabilities, judgments, fees, fines, expenses (including attorney's fees) and costs (collectively, "Damages") caused or alleged to have been caused by, or arising out of, injury to (including death of) persons (including without limitation You or any Employee or Affiliate) or damage to or destruction of property (whether belonging to AGC, its Affiliates, You or Associates, or any third party) in connection with any entry into the Premises by You or Your Employees or Associates. Without limiting the foregoing, You agree to indemnify, hold harmless and defend AGC, and its Affiliates, from and against any Damages pertaining to any environmental condition (including without limitation costs of remediation) arising in connection with any entry onto the Premises by You or any Employee or Associates. This indemnity is specifically intended to operate regardless of fault and shall operate without regard to the cause or causes of any claim, including, without limitation, even though a claim is caused in whole or in part by the negligence (whether sole, joint, concurrent, comparative, contributory, active, passive, gross or otherwise), willful misconduct, strict liability, or other fault, of AGC, its Affiliates, You or any Employee or Associate.

You agree to abide by all the terms and conditions of AGC's General Rules and Regulations, a copy of which you acknowledge having received and reviewed prior to the execution of this Agreement.

You hereby represent that you have insurance coverage to cover the contract of indemnity specified in AGC's General Rules and Regulations. You agree to provide a Certificate of Insurance and Endorsement evidencing that coverage. You acknowledge and agree that your liability under this Agreement is not limited to your insurance and you agree to provide renewal certificates of insurance evidencing coverage throughout any period during which you or any Employee or Associate may enter the Premises.

Signature: 

Date: 4/1/2012

Printed Name: Doug Gilmer

Title: GM

AGC0011990

ASH GROVE CEMENT

APPENDIX 3.

BERTH APPLICATION

Ash Grove Cement Company
3737 N. Port Center Wasy
Portland, OR 97217

Fax: 503-286-4987
email: gary.wright@ashgrove.com
email: john.hone@ashgrove.com

Reservation of a berth is requested at the ASH GROVE CEMENT COMPANY (AGC) terminal: South Pdx Terminal DO DO

By: Doug Gilmer *Authorized Individual* Of: Wilsonville Concrete Prod. *Agency Firm* On: 4-1-12 *Date*

Vessel various barges, tugs, Master: , dredges Gearless? (Y) (No)

ETA: 4/1/12 ETD: 3/31/14 Days in Berth: _____

Charterers/Owner: _____ Port of Registry: _____

Agent: _____ Ph: _____

Full Style _____ Fax: _____

Nationality: _____ GRT: _____ LOA: _____

Draft: _____ Beam: _____ Gas Free ? (Y) (N) (If applicable)

Note: Terminal warrants a minimum draft of 33ft fresh water (10.06m) available

P & I Club: _____

Application for reservation of vessel berth and vessel berthing is subject to AGC General Rules and Regulations and to the timely filing of the statement of Financial Responsibility provided and incorporated herewith as Supplement to this Berth Application

NOTE: Insurance Coverage Endorsements, Certificates and Hold Harmless & Indemnity Agreements will be required for all vendor and service companies.

REQUESTED BY AND AGREED TO:

Doug Gilmer
Authorized Individual Printed Name

Authorized Individual Signature

4/1/12
DATE

ASH GROVE CEMENT COMPANY

Redacted

TERMINAL FEES
~~See Appendix A, included~~

PAYMENT REQUIRED PRIOR TO BERTH...
UNLESS OTHERWISE NEGOTIATED

FOR ASH GROVE CEMENT COMPANY USE ONLY

Application Received By: _____ Time/Date: _____

Application Approved By: _____ Time/Date: _____

General Comments or Special Requests:

AGC0011991

JAN 3 1963

Permit No. G-2333

APPLICATION FOR A PERMIT

To Appropriate the Ground Waters of the State of Oregon

I, ASH GROVE LIME AND PORTLAND CEMENT COMPANY (Name of applicant)

of FAIRFAX BUILDING, KANSAS CITY (Postoffice Address), county of JACKSON,

state of MISSOURI, do hereby make application for a permit to appropriate the following described ground waters of the state of Oregon, SUBJECT TO EXISTING RIGHTS:

If the applicant is a corporation, give date and place of incorporation

Delaware - August 8, 1949

1. Give name of nearest stream to which the well, tunnel or other source of water development is situated WILLAMETTE RIVER (Name of stream) tributary of COLUMBIA RIVER

2. The amount of water which the applicant intends to apply to beneficial use is ..... cubic feet per second or ~~XX~~ 200 gallons per minute. *See Remarks (see ltr 3-18-63)

3. The use to which the water is to be applied is COOLING WATER AND/OR HYDRATION WATER FOR LIME PRODUCTION

4. The well or other source is located 912 ft. N (N. or S.) and 375 ft. E (E. or W.) from the S.W. corner of SECTION 26 (Section or subdivision)

(If preferable, give distance and bearing to section corner)

(If there is more than one well, each must be described. Use separate sheet if necessary)

being within the SOUTHWEST CORNER SW¼ SW¼ of Sec. 26, Twp. 2 N, R. 1 W, W. M., in the county of MULTNOMAH

5. The NO CANAL (Canal or pipe line) to be ..... miles in length, terminating in the ..... (Smallest legal subdivision) of Sec. ....., Twp. ....., R. ....., W. M., the proposed location being shown throughout on the accompanying map.

6. The name of the well or other works is LIME PLANT WELL

DESCRIPTION OF WORKS

7. If the flow to be utilized is artesian, the works to be used for the control and conservation of the supply when not in use must be described.

NOT ARTESIAN - PUMP DISCHARGE WILL BE PROVIDED WITH SHUTOFF VALVES

8. The development will consist of ONE WELL (Give number of wells, tunnels, etc.) having a diameter of 12 inches and an estimated depth of 200 feet. It is estimated that 200 feet of the well will require STEEL (Kind) casing. Depth to water table is estimated 20 FEET (Feet) BELOW GRADE OR ELEVATION 12'-0" ± COLUMBIA RIVER DATUM

G1— —2.5M

AGC0011992

G-2333

CANAL SYSTEM OR PIPE LINE— NO CANAL OR PIPE LINE

9. (a) Give dimensions at each point of canal where materially changed in size, stating miles from headgate. At headgate: width on top (at water line) NO CANAL *feet; width on bottom ..... feet; depth of water ..... feet; grade ..... feet fall per one thousand feet.*

(b) At ..... miles from headgate: width on top (at water line) ..... feet; width on bottom ..... feet; depth of water ..... feet; grade ..... feet fall per one thousand feet.

(c) Length of pipe, ... ft.; size at intake, ... in.; in size at ..... ft. from intake ..... in.; size at place of use ..... in.; difference in elevation between intake and place of use, ... ft. Is grade uniform? ..... Estimated capacity, ... sec. ft.

10. If pumps are to be used, give size and type 500 GALLON/MINUTE - VERTICAL TURBINE - WATER LUBRICATED - 10" BOWLS

Give horsepower and type of motor or engine to be used 60 H.P. - 440V-3Ø-60 CYCLE VERTICAL

11. If the location of the well, tunnel, or other development work is less than one-fourth mile from a natural stream or stream channel, give the distance to the nearest point on each of such channels and the difference in elevation between the stream bed and the ground surface at the source of development

WELL LOCATED APPROXIMATELY 1000 FEET DUE EAST OF WILLAMETTE RIVER AT ELEVATION 33'-8" - RIVER BED APPROXIMATELY MINUS 50' COLUMBIA RIVER DATUM

12. Location of area to be irrigated, or place of use .....

Township N. or S.	Range E. or W. of Willamette Meridian	Section	Forty-acre Tract	Number Acres To Be Irrigated
NO IRRIGATION CONTEMPLATED				
2 N	1 W	26	SW ¼ SW¼	OPERATION OF LIME PLANT
2 N	1 W	27	SE ¼ SE ¼	"

(If more space required, attach separate sheet)

Character of soil .....

Kind of crops raised .....

AGC0011993

G - 2333

MUNICIPAL SUPPLY—

13. To supply the city of NOT MUNICIPAL SUPPLY

in ..... county, having a present population of .....

and an estimated population of ..... in 19.....

ANSWER QUESTIONS 14, 15, 16, 17 AND 18 IN ALL CASES

14. Estimated cost of proposed works, $10,000 to $11,000

15. Construction work will begin on or before MARCH 1, 1963

16. Construction work will be completed on or before MAY 1, 1963

17. The water will be completely applied to the proposed use on or before JANUARY 1, 1964

18. If the ground water supply is supplemental to an existing water supply, identify any application for permit, permit, certificate or adjudicated right to appropriate water, made or held by the applicant. NO EXISTING WATER SUPPLY

Ash Grove Lime & Portland Cement Co.

(Signature of applicant) Vice Pres.-Productio

Remarks: ALTHOUGH ONLY 50 GPM USAGE IS NORMALLY ANTICIPATED, WELL AND PUMPING FACILITIES ARE DESIGNED FOR A 500 GPM CAPACITY AS INDICATED, TO PROVIDE STANDBY RESERVE IN CASE OF FIRE.

WATER WILL BE DISTRIBUTED BY MEANS OF STEEL PIPE THROUGHOUT THE PLANT AREA ONLY.

STATE OF OREGON, }
County of Marion, } ss.

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for .....

In order to retain its priority, this application must be returned to the State Engineer, with corrections on or before ....., 19.....

WITNESS my hand this ..... day of ....., 19.....

STATE ENGINEER

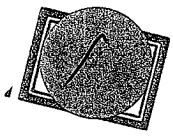
By .....

ASSISTANT

AGC0011994

STATE OF OREGON, }
County of Marion, } ss.

PERMIT



This is to certify that I have examined the foregoing application and do hereby grant the same, SUBJECT TO EXISTING RIGHTS and the following limitations and conditions:

The right herein granted is limited to the amount of water which can be applied to beneficial use and shall not exceed 0.45 *cubic feet per second measured at the point of diversion from the well or source of appropriation, or its equivalent in case of rotation with other water users, from* a well

The use to which this water is to be applied is operation of a lime plant

If for irrigation, this appropriation shall be limited to - - *of one cubic foot per second or its equivalent for each acre irrigated and shall be further limited to a diversion of not to exceed* ..... *acre feet per acre for each acre irrigated during the irrigation season of each year;* .....

and shall be subject to such reasonable rotation system as may be ordered by the proper state officer.

The well shall be cased as necessary in accordance with good practice and if the flow is artesian the works shall include proper capping and control valve to prevent the waste of ground water.

The works constructed shall include an air line and pressure gauge or an access port for measuring line, adequate to determine water level elevation in the well at all times.

The permittee shall install and maintain a weir, meter, or other suitable measuring device, and shall keep a complete record of the amount of ground water withdrawn.

The priority date of this permit is March 19, 1963 for 0.34 c.f.s.
January 3, 1963 for 0.11 c.f.s.

Actual construction work shall begin on or before April 10, 1964 *and shall thereafter be prosecuted with reasonable diligence and be completed on or before October 1, 19*64

*Complete application of the water to the proposed use shall be made on or before October 1, 19*65

WITNESS my hand this 10th *day of* April, *19*63

Chris L. Wheeler
STATE ENGINEER

A

Application No. G-2575 PC

Permit No. G- 2333

PERMIT

TO APPROPRIATE THE GROUND WATERS OF THE STATE OF OREGON

This instrument was first received in the office of the State Engineer at Salem, Oregon, on the 3rd *day of* January, *19*63 *at* 1:00 *o'clock* P. *M.*

Returned to applicant:

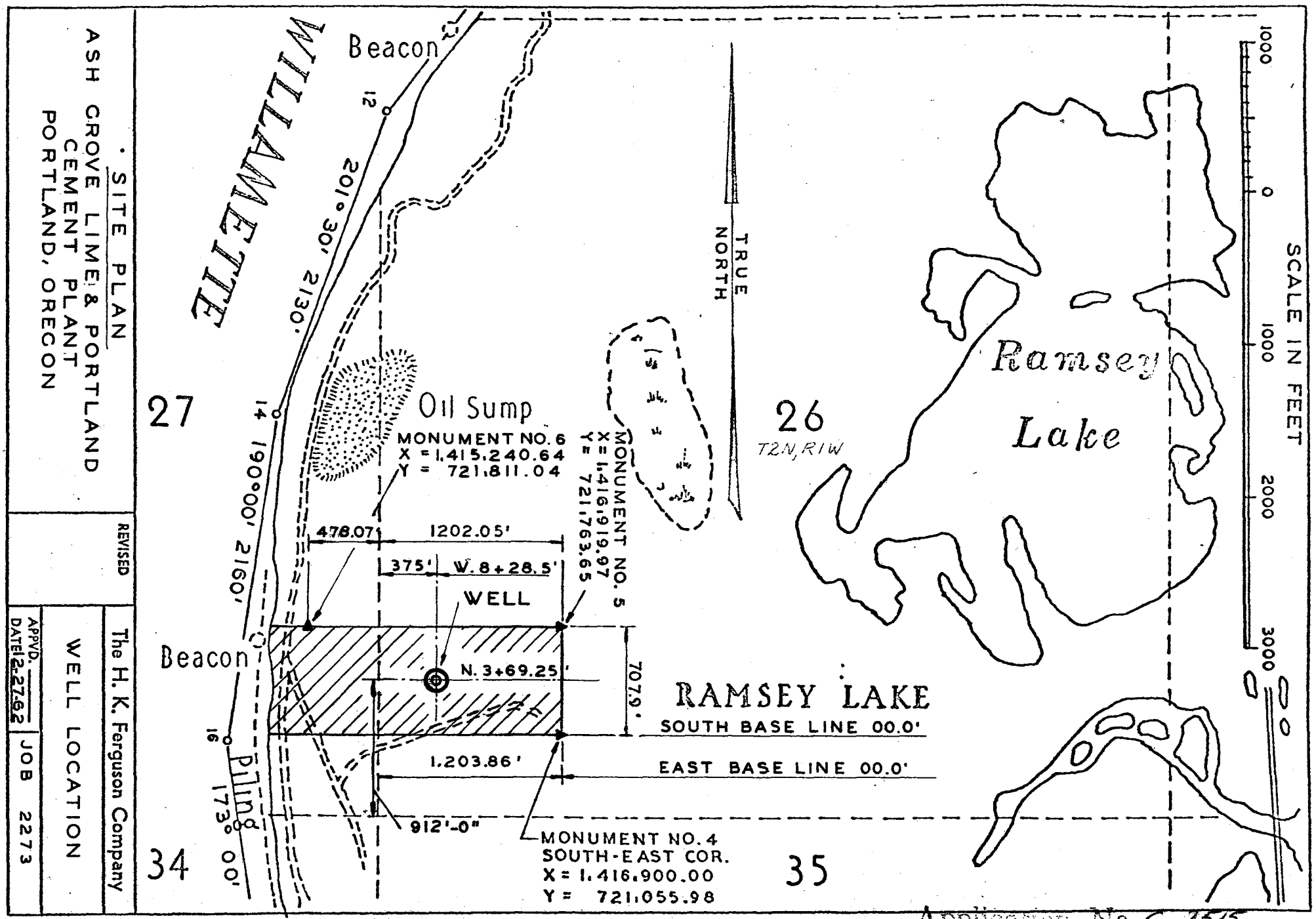
Approved:
April 10, 1963
CHRIS L. WHEELER
STATE ENGINEER

Recorded in book No. 9 *of Ground Water Permits on page* 2333

Drainage Basin No. 3 *page* 30

State Printing 2000

AGC0011995



Application No. G-2313
Permit No. G-2333

AGC0011996

STATE OF OREGON BOOK 510 PAGE 89

COUNTY OF MULTNOMAH

CERTIFICATE OF WATER RIGHT

This Is to Certify, *That* ASH GROVE LIME AND PORTLAND CEMENT COMPANY

of 101 West 11th, Kansas City 5 , *State of* Missouri , *has made proof to the satisfaction of the STATE ENGINEER of Oregon, of a right to the use of the waters of* a well

a tributary of Willamette River, tributary of Columbia River *for the purpose of* operation of a lime plant

under Permit No. G-2333 *of the State Engineer, and that said right to the use of said waters has been perfected in accordance with the laws of Oregon; that the priority of the right hereby confirmed dates from* March 19, 1963, for 0.34 cubic foot per second; January 3, 1963, for 0.11 cubic foot per second

that the amount of water to which such right is entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 0.45 cubic foot per second

or its equivalent in case of rotation, measured at the point of diversion from the stream. The point of diversion is located in the SW¼ SW¼, Section 26, T. 2 N., R. 1 W., W. M. Well located 912 feet North and 375 feet East from the SW Corner of Section 26.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to - - - - - - - - of one cubic foot per second per acre,

and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right hereby confirmed, and to which such right is appurtenant, is as follows:

SW¼ SW¼
Section 26
SE¼ SE¼
Section 27
T. 2 N., R. 1 W., W. M.

The right to the use of the water for the purposes aforesaid is restricted to the lands or place of use herein described.

WITNESS the signature of the State Engineer, affixed this date. June 17, 1966

State Engineer

Recorded in State Record of Water Right Certificates, Volume 25 *, page* 33131

AGC0011997

BOOK 510 PAGE 90

25420

91

CERTIFICATE OF WATER RIGHT

STATE OF OREGON

Ash Grove Lime & Portland Cement Co.
101 W-11th
Kansas City 5, Missouri

STATE OF OREGON,

STATE OF OREGON, }
County of Multnomah } ss.

I, Si Cohn, County Clerk, and ex-officio Recorder of Conveyances, in and for said County, do hereby certify that the within instrument of writing was received for record and recorded in the record of WATER RIGHTS of said County at

1966 JUN 21 AM 11 53

SI COHN, CO. CLERK
MULTNOMAH COUNTY
OREGON

In Book 510 On Page 89

Witness my hand and seal of office affixed.

SI COHN, County Clerk.

N Lakefish Deputy.

Form Co. Clk.-25 Recording Certificate

AGC0011998

Permit A—4M—5-64 SP-12908-119

STATE OF OREGON

COUNTY OF MULTNOMAH

Proof of Appropriation of Water

ASH GROVE LIME AND PORTLAND CEMENT COMPANY

of 101 West 11th, Kansas City 5 , State of Missouri ,
has applied beneficially the waters of
a well

a tributary of Willamette River, tributary of Columbia River for the purpose of
operation of a lime plant

under Permit No. G-2333 of the State Engineer, and that the use of said waters has been completed under the terms of said permit; that the priority of the right dates from March 19, 1963, for 0.34 cubic foot per second; January 3, 1963, for 0.11 cubic foot per second

that the amount of water for the purposes aforesaid, has been actually beneficially used in the amount of
0.45 cubic foot per second

or its equivalent in case of rotation, measured at the point of diversion from the stream. The point of diversion is located in the SW¼ SW¼, Section 26, T. 2 N., R. 1 W., W. M.
Well located 912 feet North and 375 feet East from the SW Corner of Section 26.

The amount of water used for irrigation, together with the amount secured under any other right existing for the same lands, shall be limited to - - - - - - - of one cubic foot per second per acre,

and shall conform to such reasonable rotation system as may be ordered by the proper state officer.

A description of the place of use under the right, and to which such right is appurtenant, is as follows:

SW¼ SW¼
Section 26
SE¼ SE¼
Section 27
T. 2 N., R. 1 W., W. M.

I have read the above and foregoing proof of appropriation of water; I know the contents thereof, and that the facts therein stated are true.

IN WITNESS WHEREOF, I have hereunto set my hand this 12th day of April

9 66

ASH GROVE LIME & PORTLAND CEMENT CO.

By

Executive Vice President

AGC001199

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM 10, OREGON within 30 days from the date of well completion.

WATER WELL REPORT
STATE OF OREGON
(Please type or print)

MULT 001730

State Well No. 2N/1W-27

State Permit No. .....

(1) OWNER:
Name ASH GROVE LIME AND PORTLAND CEMENT CO
Address PORTLAND, ORE.

(2) LOCATION OF WELL:
County MULT. Driller's well number 4149
¼ ¼ Section 27 T. 2N R. 1W. W.M.
Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):
New Well [X] Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal [X]
Irrigation ☐ Test Well ☐ Other ☐

(5) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable [X] Jetted ☐
Dug ☐ Bored ☐

(6) CASING INSTALLED:
Threaded ☐ Welded [X]
12 " Diam. from 0 ft. to 212 ft. Gage .330
..... " Diam. from ..... ft. to ..... ft. Gage .....
..... " Diam. from ..... ft. to ..... ft. Gage .....

(7) PERFORATIONS:
Perforated? [X] Yes ☐ No
Type of perforator used STAR
Size of perforations 3/8 in. by 1 1/4 in.
480 perforations from 194 ft. to 206 ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

(8) SCREENS:
Well screen installed ☐ Yes [X] No
Manufacturer's Name .....
Type ..... Model No. .....
..... Slot size ..... Set from ..... ft. to ..... ft.
Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.

(9) CONSTRUCTION:
Well seal—Material used in seal CEMENT GROUT
Depth of seal 25 ft. Was a packer used? NO
Diameter of well bore to bottom of seal ..... in.
Were any loose strata cemented off? ☐ Yes [X] No Depth .....
Was a drive shoe used? [X] Yes ☐ No
Was well gravel packed? ☐ Yes [X] No Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.
Did any strata contain unusable water? ☐ Yes [X] No
Type of water? Depth of strata
Method of sealing strata off

(10) WATER LEVELS:
Static level 27 ft. below land surface Date 5/18/63
Artesian pressure lbs. per square inch Date

(11) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? [X] Yes ☐ No If yes, by whom?
Yield: 560 gal./min. with 9 ft. drawdown after 5 hrs.
" " " "
" " " "
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m. Date
Temperature of water 56° Was a chemical analysis made? ☐ Yes [X] No

(12) WELL LOG:
Diameter of well below casing .....
Depth drilled 212 ft. Depth of completed well 212 ft.
Formation: *Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of formation.*

MATERIAL	FROM	TO
SAND	0	5
BLUE CLAY	5	12
SAND AND SILT	12	47
CLAY AND SILT	47	63
PACKED SAND	63	125
SAND SMALL AMOUNT OF GRAVEL	125	181
PACKED SAN	181	190
CEMENTED GRAVEL	190	194
WATER BEARING SAND AND GRAVEL	194	208
SAND GRAVEL AND CLAY	208	212

Work started 4/30 1963 Completed 5/18 1963
Date well drilling machine moved off of well 5/18 1963

(13) PUMP:
Manufacturer's Name .....
Type: ..... H.P. .....

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
NAME R.J. STRASSER DRILLING CO
(Person, firm or corporation) (Type or print)
Address 8110 SE SUNSET LANE PORT 6, ORE
Drilling Machine Operator's License No. .....
[Signed] Robert L. Strasser
(Water Well Contractor)
Contractor's License No. 10 Date MAY 23 1963

(USE ADDITIONAL SHEETS IF NECESSARY)

AGC0012000

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WASTE DISCHARGE PERMIT
Department of Environmental Quality
Northwest Region Office
2020 Southwest Fourth Avenue, Portland, OR 97201-4987
Telephone: (503) 229-5263

Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:
Ash Grove Cement Company
13939 N Rivergate Blvd.
Portland, OR 97203

SOURCES COVERED BY THIS PERMIT:

Type of Wastewater	Outfall Number	Outfall Location
Storm Runoff, Tunnel infiltration, and Non-contact Cooling	001 or 002	RM 3.3 or on site

PLANT TYPE AND LOCATION:
Settling Basins, Evaporation, Irrigation or Surface Discharge
Limestone Grinding and Lime Slaking Plant
13939 N. Rivergate Blvd.
Portland, OR 97203

RECEIVING STREAM INFORMATION:
Basin: Willamette
Sub Basin: Lower Willamette
Stream: Willamette
LLID 1227618456580-3.3-D
County: Multnomah

EPA REFERENCE NUMBER: OR OR-000160-1

Issued in response to Application No. 971316 received July 21, 2009

Gregory Geist, Manager
Water Quality Source Control, Northwest Region

5/17/11
Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify or operate a waste water collection, treatment, control and disposal system and discharge to public waters adequately treated waste waters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

	Page
Schedule A - Waste Discharge Limitations not to be Exceeded	2
Schedule B - Minimum Monitoring and Reporting Requirements	3
Schedule D - Special Conditions	5
Schedule F - General Conditions	6

Unless specifically authorized by this permit, by another NPDES or WPCF permit, or by Oregon Administrative Rule, any other direct or indirect discharge of waste is prohibited, including discharge to waters of the state or an underground injection control system.

SCHEDULE A
Waste Discharge Limitations

1. **OUTFALL 001 to Willamette River**
   a. Discharge to state waters is permitted only during November 1 through April 30 and must occur in accordance with the limitations herein.

OUTFALL 001 LIMITATIONS		
Parameter	**Limitation**	
Total Suspended Solids	25	mg/L monthly average concentration
Total Suspended Solids	50	mg/L daily maximum concentration
pH	6.5 -8.5	Within the range at all times, Standard Units
Temperature	Comply with small point source "bubble" allocation by continuing to operate in accordance with practices as described in the permit application, the permit evaluation reports and the Willamette River TMDL. No discharge May 1 through October 31.	
Flow	13,000	gallons per day maximum

   b. Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-041 and 340-045-0080 except in the following defined mixing zone:

   The Mixing Zone is defined as that portion of the river along the riverbank 3 feet wide extending to the property line up and down stream.

2. **OUTFALL 002 to Land Irrigation Site**
   a. Except for surface discharge as defined in 1.a above, all wastewater from the permitted source types shall be distributed via irrigation to the designated area in the south east portion of the facility property for dissipation by evapotranspiration and controlled seepage following sound irrigation practices so as to prevent:
      (1) Surface runoff or subsurface drainage through drainage tile;
      (2) The creation of odors, fly and mosquito breeding or other nuisance conditions;
      (3) The overloading of land with nutrients, organics, or other pollutant parameters; and,
      (4) Impairment of existing or potential beneficial uses of groundwater.
   b. Wastewater shall be placed on a cover crop to insure maximum infiltration and evapotranspiration.
   c. All activities pertaining to the management, treatment and disposal of the authorized wastewater and maintenance of the land application site shall be conducted in accordance with the approved Irrigation Wastewater Management Plan as required in Schedule D.1 of this permit, and any approved updates and amendments. No changes or amendments may be made in the approved plan without written approval by the Department.
   d. The permittee shall, during all times of disposal, provide personnel whose responsibilities include assuring the continuous performance of the disposal system within the limitations of this permit.
   e. No activities shall be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater. All wastewater and process related residuals will be managed and disposed in a manner that will prevent a violation of the Groundwater Quality Protection Rules (OAR 340-040).
   f. All settling pond waste solids must be used or disposed in a manner that will prevent their entry into the Willamette River and not create health hazards or nuisance conditions.

SCHEDULE B
Minimum Monitoring and Reporting Requirements

1. Minimum Monitoring Requirements

The permittee shall monitor the parameters as specified below at the locations indicated.

OUTFALL 001 (Willamette River)

Samples shall be collected prior to discharge to the Willamette River at an identified sample point SP subject to approval by the Department.

Item or Parameter	Site	Minimum Frequency	Type of Sample
Monthly Reporting			
Total Suspended Solids	SP	Daily when discharging	Grab[1,2]
pH (Standard units, 0.1 SU accuracy)	SP	Continuous when discharging	Continuous Recorder[1,2]
Temperature (°C, °F)	SP	Continuous when discharging	Continuous Recorder[1,2]
Total Flow (GPD)	SP	Daily when discharging	Measurement

OUTFALL 002 (Land Irrigation Site)

Samples shall be collected prior to discharge to the land application/irrigation site at an irrigation sample point **ISP** identified subject to approval by the Department.

Item or Parameter	Site	Minimum Frequency	Type of Sample
Monthly Reporting			
# of Days Irrigating	ISP	Record daily, report monthly	Record and report
pH (meter on site within 15 min)	ISP	Monthly	Grab (or continuous recorder)[1,2]
Total Flow (GPD)	ISP	Monthly total/Daily average	Measurement/Calculation
Annual Reporting[3]			
Quantity Irrigated[3] (inches/acre)	ISP	Monthly	Calculation
Flow Meter Calibration[3]	ISP	Annually	Verification
Irrigation piping and system components inspection[3]	ISP	Monthly when irrigating	Record the date, time and results of inspection
Failures of Irrigation system piping and other components[3]	ISP	Per occurrence	Record the date and time of the failure and describe the event and the remedy, including what happened to the irrigation water

NOTES:

1 The Permittee should use an approved test method, as indicated in 40 CFR 136.3, and whenever possible with a Quantitation Limit (QL) that is less than or equal to that listed in Revised RPA IMD, Appendix B Quantitation Limits Tables, November 2007 located on the web at http://www.deq.state.or.us/wq/pubs/imds/rpaammend.pdf. The Permittee must ensure that all monitoring analysis reports contain both the QL and detection level of the method as defined therein. Analyses for water quality parameters with effluent limits should use methods and procedures resulting in minimum QLs.

2 On-site analyses shall be performed by personnel fully trained and capable of proper calibration and operation of the instrument. Operator shall maintain instrument calibration log and meet the analytical requirements of the method as detailed in footnote 1.

3 Outfall 002 Irrigation Reporting is due annually in the report described below in Schedule B 2. f. except items reported monthly noted above and reported as described below in Schedule B 2.a

2. **Minimum Reporting Requirements**

a. **Reporting Frequency:** Except as noted above, the reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the month following sampling. The monthly reports must indicate for outfall 001 either the number of days of surface discharge or "no-discharge" and for outfall 002 either the number of days of irrigation or "no irrigation" as well as the results of monitoring.

b. **Report Submittal Address:**

DEQ Northwest Region Water Quality, attn: Mer Wiren,
2020 SW Fourth Ave., Ste 400,
Portland, OR 97201-4987.

c. **Reporting Forms:** Monitoring results must be reported on approved forms such as the EPA 3320 form. The EPA 3320 Form is not required to be used if the permittee uses a form(s) that is approved and includes all the discharge data required by the permit, the facility information and the certification/signature statement. The permittee must ensure that all monitoring analysis reports contain both the QL and detection level of the method, as well as the units of the results.

d. **Reporting Conventions:** For sample results below the detection level, the result shall be reported as less than the laboratory detection level (for example "<1.0"). For sample results above the detection limit and below the quantitation limit, the results shall be reported as "eDL" (for example "e1.0"). For sample results above the quantitation limit, the results shall be reported as the numeric laboratory result.

e. **Laboratory Requirements:** The laboratory used by the permittee to analyze samples must have a quality assurance/quality control (QA/QC) program to verify the accuracy of sample analyses. If QA/QC requirements are not met for any analysis, the results must be included in the report, but not used in the calculations required by this permit. When possible, the permittee must re-sample in a timely manner for parameters failing QA/QC requirements, analyze the samples, and report the results.

f. **Outfall 002:** By no later than January 15 of each year, the permittee shall submit a report to the Department that provides a log of wastewater irrigation, including the dates of irrigation, the area and location of land irrigated, the inches of water applied per acre, and any deviations from site management practices in the Irrigation Wastewater Management Plan required in Schedule D.1 of this permit.

SCHEDULE D
Special Conditions

1. No later than January 1, 2012 the Permittee shall submit to the Department an Irrigation Wastewater Management Plan or documentation that all sources of process or process-related wastewater are no longer present. The plan shall be prepared in accordance with the Department's Internal Management Directive – Operations Monitoring and Management (OM&M) Plans for Land Application of Non-Sanitary Wastewater, November 2002. The plan shall outline the methods of land application and disposal of irrigation water, including the conditions for irrigation, both during the growing season and during the winter months, and an evaluation of the hydraulic and nutrient loading rates at which the irrigation water shall be applied to ensure compliance with the terms of this permit. Upon Department approval, the permittee shall implement the plan.

2. Wastewater Characterization Sampling: No surface water discharges shall occur until the completion of the wastewater characterization. The Permittee shall submit a wastewater characterization sampling plan by September 1, 2011 incorporating at a minimum the sampling below in order to characterize the wastewater at the Rivergate site. The characterization shall be completed no later than December 31, 2011. These samples shall be collected from the combined wastewater and be representative of the wastewater to be irrigated or discharged to surface waters. Analytical methods and quantitation limits shall be as in Schedule B (1) Note 1above.

Item or Parameter	Site	Minimum Number of Samples per Site	Type of Sample
TSS	ISP	4	Grab
pH	ISP	4	Grab
Chlorine Residual[1]	ISP	4	Grab
Temperature[2]	ISP	4	Grab
Arsenic, Total & Inorganic[3]	ISP	4	Grab
Pb, Zn[3]	ISP	4	Grab

[1] Chlorine Residual may be discontinued if none of the wastewater streams contain or originated as chlorinated well water.
[2] Temperature monitoring includes report the time of day sampled and ambient air temperature.
[3] For the arsenic and metal samples the minimum number of samples is 2 if results are "non-detect" at the correct quantitation limit or 4 if results are detected (see Schedule B (1) Note 1).

3. The Permittee shall not be required to perform a hydrogeologic characterization or groundwater monitoring during the term of this permit, provided that:
   a. the facilities are operated in accordance with the permit conditions, and;
   b. there are no adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility's operation.

   If warranted at permit renewal, the Department may re-evaluate the need for a full assessment of the facility's impact on groundwater quality.

4. Except as provided in OAR 340-052-0045, prior to constructing or modifying any wastewater control facilities, detailed plans and specifications shall be approved in writing by the Department. Following approval of the plans, all construction shall be in strict conformance with the plans unless otherwise approved in writing by the Department.

5. The Permittee shall, during all times of disposal, provide personnel whose primary responsibilities are to assure the continuous performance of the disposal system within the limitations of this permit.

6. An adequate contingency plan for the prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity of good in-plant control and quick and proper action in the event of a spill or accident.

SCHEDULE F
NPDES General Conditions

SECTION A. STANDARD CONDITIONS

1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and the federal Clean Water Act and is grounds for an enforcement action. Failure to comply is also grounds for the Department to terminate, modify and reissue, revoke, or deny renewal of a permit.

2. Penalties for Water Pollution and Permit Condition Violations

The permit is enforceable by DEQ or EPA, and in some circumstances also by third-parties under the citizen suit provisions 33 USC §1365. DEQ enforcement is generally based on provisions of state statutes and EQC rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows the Department to impose civil penalties up to $10,000 per day for violation of a term, condition, or requirement of a permit. The federal Clean Water Act provides for civil penalties not to exceed $32,500 and administrative penalties not to exceed $11,000 per day for each violation of any condition or limitation of this permit.

Under ORS 468.943, unlawful water pollution, if committed by a person with criminal negligence, is punishable by a fine of up to $25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense. The federal Clean Water Act provides for criminal penalties of not more than $50,000 per day of violation, or imprisonment of not more than 2 years, or both for second or subsequent negligent violations of this permit.

Under ORS 468.946, a person who knowingly discharges, places, or causes to be placed any waste into the waters of the state or in a location where the waste is likely to escape into the waters of the state is subject to a Class B felony punishable by a fine not to exceed $200,000 and up to 10 years in prison. The federal Clean Water Act provides for criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment of not more than 3 years, or both for knowing violations of the permit. In the case of a second or subsequent conviction for knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

3. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Department may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
e. New information or regulations
f. Modification of compliance schedules
g. Requirements of permit reopener conditions
h. Correction of technical mistakes made in determining permit conditions
i. Determination that the permitted activity endangers human health or the environment
j. Other causes as specified in 40 CFR 122.62, 122.64, and 124.5

The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants

The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 and 307(a) of the federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

7. Property Rights and Other Legal Requirements

The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References

Except for effluent standards or prohibitions established under Section 307(a) of the federal Clean Water Act and OAR 340-041-0033 for toxic pollutants and standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees

The permittee must pay the fees required by Oregon Administrative Rules.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Need to Halt or Reduce Activity Not a Defense

For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities

a. Definitions

(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b. and c. of this section.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Prohibition of bypass.

(1) Bypass is prohibited and the Department may take enforcement action against a permittee for bypass unless:

(a) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and

(c) The permittee submitted notices and requests as required under General Condition B.3.c.

(2) The Department may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Department determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.

(1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to the Department at least ten days before the date of the bypass.

(2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
   (1) An upset occurred and that the permittee can identify the causes(s) of the upset;
   (2) The permitted facility was at the time being properly operated;
   (3) The permittee submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
   (4) The permittee complied with any remedial measures required under General Condition A.3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Upset

For purposes of this permit, A Single Operational Upset that leads to simultaneous violations of more than one pollutant parameter will be treated as a single violation. A single operational upset is an exceptional incident that causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational upset does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational upset is a violation.

6. Public Notification of Effluent Violation

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entitles (e.g., public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed in accordance with General Condition B.7. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

7. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from bypasses or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
c. Ensure immediate notification to the public, health agencies, and other affected entities (including public water systems). The response plan must identify the public health and other officials who will receive immediate notification;
d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
e. Provide emergency operations: and
f. Ensure that DEQ is notified of the public notification steps taken.

8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit, and shall be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points may not be changed without notification to and approval of the Department.

2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under 40 CFR part 136, or in the case of sludge use and disposal, under 40 CFR part 503, unless other test procedures have been specified in this permit.

4. Penalties of Tampering
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of not more than $10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both.

5. Reporting of Monitoring Results
Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permittee
If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or, in the case of sludge use and disposal, under 40 CFR part 503, or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements
Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which shall be averaged as specified in this permit.

8. Retention of Records
Records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR part 503). Records of all monitoring information including all calibration and maintenance records,

all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit and records of all data used to complete the application for this permit shall be retained for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

9. Records Contents

Records of monitoring information must include:

a. The date, exact place, time, and methods of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

10. Inspection and Entry

The permittee must allow the Department or EPA upon the presentation of credentials, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

11. Confidentiality of Information

Any information relating to this permit that is submitted to or obtained by DEQ is available to the public unless classified as confidential by the Director of DEQ under ORS 468.095. The Permittee may request that information be classified as confidential if it is a trade secret as defined by that statute. The name and address of the permittee, permit applications, permits, effluent data, and information required by NPDES application forms under 40 CFR 122.21 will not be classified as confidential. 40 CFR 122.7(b).

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes

The permittee must comply with OAR chapter 340, division 52, "Review of Plans and Specifications" and 40 CFR Section 122.41(l) (1). Except where exempted under OAR chapter 340, division 52, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility.

2. Anticipated Noncompliance

The permittee must give advance notice to the Department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR Section 122.61. The permittee must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours from the time the permittee becomes aware of the circumstances, unless a shorter time is specified in the permit. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

The following must be included as information that must be reported within 24 hours under this paragraph:

a. Any unanticipated bypass that exceeds any effluent limitation in this permit;
b. Any upset that exceeds any effluent limitation in this permit;
c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Department in this permit; and
d. Any noncompliance that may endanger human health or the environment.

A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:

e. A description of noncompliance and its cause;
f. The period of noncompliance, including exact dates and times;
g. The estimated time noncompliance is expected to continue if it has not been corrected;
h. Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and
i. Public notification steps taken, pursuant to General Condition B.7.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance

The permittee must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:

a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information

The permittee must furnish to the Department within a reasonable time any information that the Department may request to determine compliance with the permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements
All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR Section 122.22.

9. Falsification of Information
Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison. Additionally, according to 40 CFR 122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a federal civil penalty not to exceed $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

10. Changes to Discharges of Toxic Pollutant
The permittee must notify the Department as soon as it knows or has reason to believe the following:
a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:
   (1) One hundred micrograms per liter (100 µg/l);
   (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
   (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Section 122.21(g)(7); or
   (4) The level established by the Department in accordance with 40 CFR Section 122.44(f).
b. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
   (1) Five hundred micrograms per liter (500 µg/l);
   (2) One milligram per liter (1 mg/l) for antimony;
   (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR Section 122.21(g)(7); or
   (4) The level established by the Department in accordance with 40 CFR Section 122.44(f).

SECTION E. DEFINITIONS

1. *BOD* means five-day biochemical oxygen demand.
2. *CBOD* means five day carbonaceous biochemical oxygen demand.
3. *TSS* means total suspended solids.
4. "*Bacteria*" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
5. *FC* means fecal coliform bacteria.
6. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
7. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR Section 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR Chapter 340, Division 41.

8. *mg/l* means milligrams per liter.
9. *kg* means kilograms.
10. m^3/d means cubic meters per day.
11. *MGD* means million gallons per day.
12. 24-hour *Composite sample* means a combination of at least six discrete sample aliquots of at least 100 milliliters, collected at periodic intervals from the same location, during the operating hours of the facility over a 24 hour period. Four (rather than six) aliquots should be collected for volatile organics analyses. The composite must be flow or time proportional, whichever is more appropriate. The sample aliquots must be collected and stored in accordance with procedures prescribed in the most recent edition of *Standard Methods for the Examination of Water and Wastewater.*
13. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
14. *Quarter* means January through March, April through June, July through September, or October through December.
15. *Month* means calendar month.
16. *Week* means a calendar week of Sunday through Saturday.

As Posted.

State of Oregon
Department of
Environmental
Quality

National Pollutant Discharge Elimination System
PERMIT EVALUATION AND FACT SHEET
Public Notice Draft 4-5-11
Oregon Department of Environmental Quality
Northwest Region
2020 SW 4th Ave, Suite 400
Portland, OR 97201
(503) 229-5263

Public Notice Draft

Permittee:	Ash Grove Cement Company/ Ash Grove Rivergate Lime Plant 13939 N Rivergate Blvd. Portland, OR 97203
Existing Permit Information:	File Number: 3690 Permit Number: 102465 Expiration Date: January 31, 2010 EPA Reference Number: OR-000160-1
Source Contact:	Glenn Dollar, 503-247-5423 Environmental Health and Safety Manager
Source Location:	13939 N Rivergate Blvd. Portland, OR 97203 Multnomah County
LLID:	1227618456580-3.3-D
Receiving Stream/Basin:	Willamette Basin; Lower Willamette Sub Basin; Stream = Willamette
Proposed Action:	Renew Permit Application Number: 971316 Date Received: 7/21/2009
Source Category:	NPDES Minor – Industrial (NPDES-IW-B16 = facilities not elsewhere classified with non-process wastewater)
Sources Covered:	Non-contact cooling, stormwater, infiltration
Permit Writer:	Mer Wiren, P.E. Sr. Environmental Engineer, Northwest Region, Source Control Section Draft 4/5/11

1.0 INTRODUCTION

The Department of Environmental Quality is proposing to renew the NPDES wastewater permit for the Ash Grove Cement Company's Rivergate Lime Plant located at 13939 N. Rivergate Blvd., Portland OR 97203. This permit allows the land application (irrigation) and discharge of non-contact cooling water, stormwater, and groundwater infiltration subject to effluent limitations, to the site and to the Willamette River, 3.3 miles from the confluence with the Columbia River, in the Lower Willamette Sub Basin of the Willamette Basin. This renewal is for operations that are reduced compared to the previous renewal; there are no increases in concentration, volume, or loading.

The current National Pollutant Discharge Elimination System (NPDES) Permit expired on January 31, 2010. DEQ received renewal application number 971316 from Ash Grove Cement on July 21, 2009. Because a completed renewal application was submitted to DEQ prior to expiration and in a timely manner, the current permit will not expire until final action is taken by DEQ on the renewal application as per OAR 340-045-0040.

The Federal Water Pollution Control Act of 1972 and its subsequent amendments as well as Oregon Revised Statutes (ORS 468B.050) require a NPDES permit for the discharge of wastewater to surface waters. This proposed permit action by DEQ complies with both federal and state requirements. Groundwater protection and land application of treated wastewater are regulated and authorized by OAR 340 in divisions 40 and 55.

This permit evaluation report describes the basis and methodology used in developing the permit. The permit is divided into several sections:

Schedule A – Waste discharge limitations
Schedule B – Minimum monitoring and report requirements
Schedule D – Special conditions
Schedule F – General conditions

The proposed permit contains the following substantive changes from the 2005 permit:

- Cover Page: The list of covered sources, types of wastewater has changed; a second 'outfall' (for land application) is defined.
- Schedule A Waste Discharge Limitations: A new limitation for temperature has been added.
- Schedules A and B: Limitations and monitoring are now required for both discharge to surface waters and for land application.
- A weather and hydraulic loading based approach to surface water discharge versus land application has been added to require land irrigation during the summer and to require surface water discharge only

in winter and only when irrigation would provide too much water to the land application site.

- Land application/irrigation protocols and standards concerning ponding, management practices and groundwater protection are addressed in the proposed permit.
- Schedule B Minimum Monitoring and Reporting: Identifies a link to preferred methods and shows required quantitation limits for tested parameters; requires identification of sampling points for outfalls 001 and 002; requires outfall 002 monitoring monthly and some data submitted in an annual report.
- Schedule D Special Conditions: Requires an Irrigation Wastewater Management Plan and wastewater characterization sampling prior to surface water discharge.
- Schedule F General Conditions: Includes the new industrial permit General Conditions adopted by the Department earlier this year.
- In addition, this Permit Evaluation Report includes process specific definitions of when discharge is not allowed to provide information if Ash Grove management contemplates future changes to site operations.

2.0 FACILITY DESCRIPTION

2.1 General

Operations: The Rivergate plant of the Ash Grove Cement Company has been in existence since 1964. A map along with a site plan and water schematic are attached at the end of this document. It was built as a Lime plant to produce quick lime (Calcium oxide, CaO) from limestone by the calcining process in kilns. That operation continued until 2006. The site also had a hydrating department that slaked the quicklime to "hydrated" lime (Calcium Hydroxide, Ca $(OH)_2$). That process does still occur on site using quicklime brought in from elsewhere. The remaining activities include receiving limestone and dolomite by barge, off loading, sorting by size, grinding to powder, and shipping in bulk by truck for agricultural usage.

Water Uses and Wastewater Generation: The water source to Ash Grove is a deep aquifer well (212 ft according to the original well log). The well water is chlorinated and stored in a 12,000 gallon water tank on top of the hydrating plant. Gravity feed with pressure head delivers water throughout the plant. Well water is not used for drinking but supplies all other uses including showers and restrooms.

Wastewater from sanitary uses was originally treated on-site with a septic system and drain field but has been discharged to a sanitary sewer since year 2000.

Historically the site had lime kilns. The kilns were decommissioned in 2006 and along with an associated impoundment have been removed. That area of the site is presently vacant with a gravel surface. Thus, one major type of wastewater, the lime kiln seal water, is no longer generated. Similarly, limestone washing, once a major contributor of site wastewater, was discontinued in 1974.

There is still a hydrating department on site that is now operated by a different business entity (CaO to $Ca(OH)_2$). There are no discharges or wastewater impoundments from that process.

Currently, the major activity at the site is grinding limestone and dolomite rock to powder for agricultural uses. The raw material is received by barge and off loaded. The ground product is shipped offsite in bulk by truck. There are conveyors and size sorters, a grinding mill, and large piles of raw material and some of 'sized' material. The only related water usage is dust suppression. Any excess of this water evaporates or infiltrates without runoff.

A truck wash is used to avoid fugitive dust migrating offsite. The truck wash has an impoundment with a recycled water system. Make-up water is added at an estimated average of 330 gallons per day. Occasionally during wet weather, when direct rainfall on the impoundment exceeds losses, there is excess truck wash water which overflows the basin weir and is 'land applied/irrigated' adjacent to the impoundment.

Stormwater appears to infiltrate rather than to runoff. Overall, the site is flat, except at the immediate river's edge. At the river edge there is a raised berm

isolating the interior of the site from the river. On the riverward side of the berm, the bank drops steeply to the water. The majority of the site is not paved. During a recent (wintertime) inspection, there were small standing puddles but these were said to be transitory. There was no sign of stormwater collecting in perimeter ditches or of any run-off at the river's edge. There is no powdery grey-white staining on the bank. The ditch along the south property line and the impoundments in the southwest corner of the site leading to the outfall appear abandoned. They are overgrown with shrubs and small trees and are blocked in several locations with piles of raw material. The outfall is blocked at the weir from the last downstream impoundment, so discharge at the outfall is presently impossible.

During wet weather some stormwater infiltrates into a tunnel no longer in use. This infiltration is pumped out of the tunnel into an impoundment (the southern of 3 parallel cells in the "rock wash basins") for subsequent irrigation. There is no estimate for this volume, but it was recently observed during wet weather to be less than the flow from the compressor described below. During dry weather this infiltration stops.

There are a number of pneumatically driven mechanisms which are actuated by pressurized air from a compressor located adjacent to the former kiln site. The cooling water from this compressor, an estimated 14,000 gallons per day (1870 cubic feet per day), is now the majority of wastewater generated at Ash Grove. This is non-contact cooling water which goes from the well to the holding tank, through the compressor cooling system, to an impoundment (the northern of 3 parallel cells of the "rock wash basins"). This cooling water mixes with the tunnel infiltration water in the central 'rock wash basin' prior to pumping to irrigation. Ash Grove has recently started the process to have the compressor cooling system replaced with a non-water system. This wastewater source may be eliminated as soon as the summer of 2011.

The water from these two sources is directly irrigated onto a field (approximately 6 acres) at the east end of the plant site that has been dedicated to that purpose for many years. At a recent inspection performed in the rainy season and immediately after several days of heavy rain, ponding was observed at the irrigation site but without sign of runoff. The ponding was not surprising considering the weather. Land application/irrigation protocols and standards concerning ponding are addressed in the proposed permit.

In summary, there have been no discharges to surface water from any of the various site uses or from stormwater during this permit cycle. There is no process wastewater generated on site. There are two sources of wastewater which are currently irrigated on site (stormwater and 'process-related' non-contact cooling water).

2.2 Wastewater Treatment

The wastewater at the site is collected in a three part impoundment (the 'rock wash basins') where it mixes, settles, and is then irrigated onto a grassy area.

Based on dimensions and the compressor cooling water flow, the detention time at the settling basins is estimated at 7days which means there will be some natural dissipation of heat load and de-chlorination. Discharge to irrigation is through a 2 ½ inch hose in batch rather than continuous mode with pumping under float activated control.

2.3 Wastewater Characteristics

The wastewater is currently irrigated, not discharged to surface waters. It has only been discharged twice since 1974, so discharge data is nearly non-existent. Since the permit requires surface water discharge during winter wet weather when flows would exceed the hydraulic capacity of the irrigation site, the wastewater that would be discharged needs to be characterized and limited in the permit as necessary to protect waters of the state. The wastewater that will continue to be irrigated at most times needs to be characterized to verify compatibility with land application to vegetated land and with groundwater protection regulations. Therefore, sampling will be required by this permit for wastewater characterization. Data generated in this manner will be used at the next renewal or may be used to revisit the permit limits if necessary.

The known wastewater characteristics include:

- chlorine residual (the well water is chlorinated between the well and the storage tank; no other treatment chemicals are added)
- heat load (the wastewater is primarily non-contact cooling water used to cool a compressor)
- pH (much of the site is covered with lime and/or limestone residuals which raise pH)
- Total Suspended Solids, TSS, may be present as they often are at lime facilities
- Other parameters in the well water or which become dissolved or suspended during residence time in the settling basin or during infiltration into the tunnel (see below).

2.4 Well Water Characteristics

The well water in use at Ash Grove Rivergate was tested for drinking water usage on 4/29/1987. The results included "non-detect" for Arsenic, Cadmium, Copper, Lead, Mercury, Nitrate*, Selenium, Silver, Sulfate, and Zinc. Results below the drinking water MCL were listed for Fluoride, Chromium, and Barium. Results typical of local groundwater were reported for these parameters: chloride, hardness, iron, manganese and pH. In conclusion, the well water is not expected to be a source of metals or other pollutants to the wastewater. *Nitrate continues to be tested regularly and is ND or below the MCL.

2.5 Groundwater Issues

A Site Assessment investigation was performed by DEQ which resulted in a Site Strategy Recommendation that did not identify a groundwater contamination

problem at this site (ECSI 4696). There is no groundwater remediation or cleanup project underway or planned for this site.

Groundwater is not part of the discharge considered for this site except with regard to the tunnel infiltration water which is likely a combination of runoff and of shallow groundwater infiltration. Such water would be impacted by the stored raw materials, limestone and dolomite. Those materials have been tested and characterized for designation as organic soil amendments. Reviewing that information has not raised concern for pollutants entrained or dissolved during runoff or infiltration.

The site is not in a designated Groundwater Management Area or other sensitive area. However, because groundwater could possibly be influenced by the irrigation of the wastewater, an evaluation was conducted by the Department's Senior Groundwater Hydrologist, a Registered Geologist, Bill Mason. His evaluation was similar to that performed for authorizing the irrigation of "recycled water" (treated domestic wastewater). His conclusion was that "the site poses a low risk to groundwater beneficial uses, and therefore [he did] not recommend groundwater monitoring during this permit cycle." This is comparable to the "no reasonable impact on groundwater" determination required for permitting of recycled water use.

2.6 Storm Water

The site has a steep bank at the river capped with a raised berm and is then flat perhaps sloping slightly away from the river toward the east (interior) of the site. This site has virtually no stormwater runoff because little of the site is paved or impervious. The majority of the site is covered with large sized gravel which is open and quite porous. The soil under the gravel is sandy (porous). The large area used for irrigation of the wastewater, is vegetated and yields no runoff. At hydraulic overload, temporary ponding occurs rather than runoff. The perimeter ditches are earthen, highly porous, and show no signs of conveying any water. In addition, they are currently blocked.

Rainwater falling on the site generally infiltrates. Rainwater falling directly on the cooling water impoundment is subject to settling followed by pumping for either irrigation or for surface discharge.

2.7 Outfalls

There is one outfall to surface waters at the site as listed in the permit. Outfall 001 is a 24 inch diameter galvanized corrugated steel pipe located in the southwest corner of the property. It starts at a weir on the landward side of the berm separating the majority of the site from the river. It is subsurface until it breaks through the steep river bank above water level. The outfall was equipped with a continuous recording device for pH and temperature monitoring as required by the 2002 renewal. The outfall is currently blocked from any possible discharge so the monitoring equipment is in storage at the office. Prior to future discharge through outfall 001, flow and parameter monitoring equipment would

have to be installed, sampling points would have to be defined, the head end of the outfall would have to be opened and a connection or pipe to the wastewater source would have to be established.

The wastewater generated at this site has long been irrigated to a field at the east end of the site. It is pumped there through a 2 1/2" hose. Dispersal equipment was missing at the time of a recent inspection. This land application is defined as outfall 002 for this renewal permit. Limitations and monitoring requirements are addressed for each outfall.

2.7 Sludge Management

There have never been waste solids or sludge produced at this site. The material that settles out in the settling basins is reintroduced into the production process becoming part of the product.

3.0 PERMIT HISTORY

3.1 Permit History

The plant first made application for a Waste Discharge Permit in 1967 to the Oregon State Sanitary Authority, the predecessor of DEQ. Ash Grove Cement has had a permit continuously since that time. The first NPDES permit was in 1973 with renewals in 1977, 1982, 1987, 1992, 1997, 2002, and 2005.

EPA first promulgated effluent limitation guidelines concerning calcium oxide production and calcium hydroxide production in 1974. The regulations underwent some changes and additions reaching the current requirements effective by 1989. These revisions had impact on the permit renewals which similarly evolved, generally becoming more stringent or at a minimum staying the same. The parameters of interest in the regulations and permit have been flow, pH (acidity), and TSS. The Willamette TMDL (discussed below) has added temperature to that list.

There will be substantive changes in this renewal due to the closing and removal of the calcium oxide production facilities formerly at this site.

3.2 Compliance History

There have been no discharges or compliance actions during this permit cycle. The site has only discharged twice since 1974, one of which resulted in a Notice of Non-compliance for high pH in 1994.

4.0 RECEIVING WATER

4.1 Designated Beneficial Uses

The receiving water for the Ash Grove Cement Company, Rivergate Plant is the Willamette River. For many years they have irrigated in lieu of a surface water discharge. However, they have had hydraulic overloading at their irrigation site. Subsequent to this renewal AGC will discharge seasonally to the Willamette River through outfall 001 during the winter when their irrigation site is

hydraulically overloaded. Therefore, the lower Willamette River water quality will be reviewed. The designated beneficial uses of the Willamette River in this reach are as given in Table 1. The water quality standards for the Willamette Basin were developed to protect these beneficial uses and can be found in Oregon Administrative Rules 340-041-0345 some of which are summarized in Table 2.

TABLE 1
WILLAMETTE RIVER DESIGNATED BENEFICIAL USES
BASED ON 340-041-0340, TABLE 340A

Beneficial Uses	Main Stem Willamette River Mouth to Willamette Falls, Including Multnomah Channel
Public Domestic Water Supply[1]	X
Private Domestic Water Supply[1]	X
Industrial Water Supply	X
Irrigation	X
Livestock Watering	X
Fish and Aquatic Life[2]	X
Wildlife and Hunting	X
Fishing	X
Boating	X
Water Contact Recreation	X
Aesthetic Quality	X
Hydro Power	X
Commercial Navigation & Transportation	X

[1] With adequate pretreatment and natural quality that meets drinking water standards.
[2] See also figures 340A and 340B for fish use designations for this basin.
[3] Not to conflict with commercial activities in Portland Harbor.

With regard to Fish and Aquatic Life Use, the Figures 340A and 340B in the regulations show that this portion of the Willamette River is designated as a 'Salmon and Steelhead Migration Corridor' but without 'spawning usage'. This is relevant and important to the temperature discussion below.

TABLE 2 SELECTED STATE WIDE WATER QUALITY STANDARDS OAR 340-041-007 THROUGH 036	
Parameter	**In-stream Water Quality Criteria**
Dissolved Oxygen	**Cool Water Aquatic Life Criteria:** ≥ 6.5 mg/L (absolute minimum for surface samples)
Temperature	The 7-day average maximum temperature of a stream identified as having a migration corridor use may not exceed 20 °C (68.0 °F) and must have cold water refugia – Insignificant anthropogenic inputs are allowed
Thermal Plumes	Prevent impairment of spawning, acute impairment, instantaneous lethality, thermal shock, and migration blockage.
Turbidity	No more than a ten percent cumulative increase in natural stream turbidities allowed
BASIN SPECIFIC WATER QUALITY CRITERIA FOR THE MAINSTEM OF THE WILLAMETTE RIVER 340-041-0345	
pH	≥ 6.6 and ≤ 8.5
Total Dissolved Solids	100.0 mg/L

4.2 Receiving Stream Water Quality

The Willamette River exceeds water quality standards for some parameters, and is therefore deemed to be water quality limited. The parameters are listed in Table 3 below. To address these problems, the Department has developed Total Maximum Daily Loads (TMDL) for temperature, mercury, and bacteria for the Willamette. For more information on TMDLs in general and on the TMDLs developed for the Willamette in particular, go to:
http://www.deq.state.or.us/wq/tmdls/tmdls.htm

Ash Grove is not a source of and was not given a waste load allocation for bacteria or mercury. The AGC wastewater does have waste heat. It starts as cold well water which is used for non-contact cooling. That process warms the water which means that temperature is a parameter which will be reviewed in light of the Willamette River TMDL for temperature. There is no reason to believe this wastewater is a source of the other limited parameters (see the well water characterization and the site assessment for contaminants under groundwater above).

TABLE 3
2004/06 303(D) LISTING INFORMATION

Stream Segment	Parameter	Season	Listing Status
Willamette River (Mouth to Willamette Falls)	Aldrin	Year-around	Water Quality Limited
	Bacteria (fecal coliform)	Fall/Winter/Spring	TMDL Completed
	Biological Criteria	Year-around	Water Quality Limited
	DDT & DDE (DDT metabolite)	Year-around	Water Quality Limited
	Dieldrin	Year-around	Water Quality Limited
	Iron	Year-around	Water Quality Limited
	Manganese	Year-around	Water Quality Limited
	Mercury	Year-around	TMDL Completed
	Polychlorinated Biphenyls (PCBs)	Year-around	Water Quality Limited
	Pentachlorophenol	Year-around	Water Quality Limited
	Polycyclic Aromatic Hydrocarbons (PAHs)	Year-around	Water Quality Limited
	Temperature	Summer	TMDL Completed

4.3 Regulatory Mixing Zone Analysis

Federal regulations and Oregon Administrative Rules allow DEQ to suspend all or part of the water quality standards in small, designated areas within receiving waters around a discharge. These small areas allow treated wastes and receiving waters to thoroughly mix and dilute the treated wastes. These are known as "allocated impact zones" or "mixing zones." Two mixing zones can be developed for each discharge: 1) The acute mixing zone, also known as the "zone of initial dilution" (ZID), and 2) the chronic mixing zone, usually referred to as "the mixing zone." The ZID is a small area where acute criteria can be exceeded but must be designed to prevent lethality to organisms drifting through it. The larger mixing zone is an area where acute criteria must be met but chronic criteria can be exceeded. It must be designed to protect the integrity of the entire water body. The applicable rules for Oregon are found in OAR 340-041-0053.

4.4 Mixing Zone Definition

In the case of Ash Grove Cement the flow data is estimated. Flow volumes would need to be documented to perform a detailed site specific mixing zone analysis. Operations, flow, and loadings subject to this proposed renewal permit are substantially less than at the last renewal.

Environmental mapping demonstrated there were no critical resource areas within the vicinity of the mixing zone. Review of the fish use maps indicate salmonid spawning does not occur in the mainstem of the Willamette. There are no public access points near the mixing zone. The wastewater does not contain nuisance materials, floating debris, oil, scum or materials that will cause objectionable deposits, odors, fungal or bacterial growth. Limitations in the proposed permit assure that criteria or standards are met at the end of pipe rather than at the edge of the RMZ. The regulatory mixing zone, as previously defined, complies with the requirements contained in OAR 340-041-0053.

Therefore, the previously designated regulatory mixing zone for Ash Grove Cement, Rivergate remains the same size and location as previously defined but with clarified language:

> "The Mixing Zone is defined as that portion of the river along the riverbank 3 feet wide extending to the property line up and down stream."

5.0 PERMIT LIMITATIONS

There are two categories of effluent limitations for NPDES permits. They are: 1) Technology-based effluent limits and 2) Water quality-based effluent limits. Technology-based effluent limits are developed based on the Effluent Limitation Guidelines (ELGs) established by EPA for specific industrial categories. Technology-based effluent limits define a minimum level of treatment using available technology. They may also be established using best professional judgment. By contrast, water quality-based effluent limits are developed independent of the available treatment technology and take into account the quality and quantity of the water in the receiving stream instead. When the receiving stream is water quality-limited or shows evidence of impairment, water quality-based effluent limits are typically more stringent than the technology-based permit limits.

Existing permit limits may fall into either of the categories described above. Since the relaxation of effluent limitations in reissued permits is not allowed under anti-backsliding provisions described in CFR 122.44(l), the most stringent of the technology-based, the water quality-based, or the existing permit limits must be included in the new permit, subject to certain exceptions.

5.1 Existing Permit Limitations

The existing permit limitations are shown in Table 4. These permit limitations will be retained unless superseded by more stringent limits set by technology standards or by the water quality analysis below.

TABLE 4
EXISTING PERMIT LIMITATIONS

Parameter	Existing Limits (monthly average)	Existing Limits (maximum daily)	Basis
TSS	25 mg/L	50 mg/L	TBEL
pH		Within the range 6.5 to 8.5	WQBEL
Flowrate		2000 L/hr	

5.2 Technology-Based Effluent Limits

When the Ash Grove Cement Company, Rivergate Lime Plant was producing calcium oxide (quicklime), the applicable technology based standards were contained in 40 CFR Part 415 Inorganic Chemicals Manufacturing Point Source Category, Subpart E Calcium Oxide Production Subcategory. The calcium oxide process has the limit of 'no discharge of process wastewater' contained in Subpart E 415.53 with the exception that a properly sized and operated settling impoundment could discharge an amount equal to the volume of rainwater falling on the impoundment in excess of a specified extreme storm [415.53(b)]. The calcium hydroxide (slaked lime) process is subject to Subpart AE Calcium Hydroxide Production Subcategory. The calcium hydroxide process has the limit of 'no discharge of process wastewater' contained in Subpart AE Section 415.312. See Table 5.

TABLE 5
Applicable Discharge Limitations
By Wastewater Process Source

Calcium Hydroxide Production 40 CFR Subpart AE 415.312	No Discharge to surface water. No discharge to an impoundment where there is any potential for discharge to surface water.	
Calcium Oxide Production 40 CFR Subpart E 415.53 (a)	No Discharge to surface water except as described below for an impoundment.	
(Calcium Oxide) Process Wastewater Impoundment including direct precipitation 40 CFR Subpart E 415.53 (b)	May discharge only when there is a rainfall event greater than the 25 yr, 24 hour rainfall event as defined by NOAA	The discharge volume is limited to that falling on the impoundment in excess of the defined storm amount

These limitations are presented here for information and for ongoing and future planning by Ash Grove management. They are not stated explicitly in this permit as there is no calcium oxide process on the site and there is no process wastewater for discharge from the calcium hydroxide process. These limits are incorporated in the permit by the listing of wastewater types that are permitted which does not include process wastewater.

As discussed above, Ash Grove has other water uses on site that result in wastewater for discharge or irrigation. These other uses are not covered by technology based effluent limitations from the EPA. The wastewater generated by those uses will be considered from the water quality perspective. Parameters in the wastewater will be compared to basin and state standards. Flowrate of discharge will be explicitly linked to the wastewater sources listed in this renewal.

5.3 Water Quality-Based Effluent Limits

Reasonable Potential Analysis and Permit Limit Derivation

EPA has developed a methodology called Reasonable Potential Analysis (RPA) for determining if there is a reasonable potential for a discharge to cause or contribute to violations of water quality standards. It takes into account effluent variability, available dilution (if applicable) and receiving stream water quality. It can be used with respect to water quality standards designed to protect both human and aquatic health from effects of toxic pollutants.

Following EPA's methodology for RPA, DEQ has developed a spreadsheet based comparison tool which performs the statistical analyses. If the results of the RPA indicate that there is a potential for the discharge to cause or contribute to exceedances of water quality standards, the methodology is then used to determine what the permit limits must be in order for the discharge to *not* cause or contribute to violations of water quality standards.

The RPA analysis cannot be performed at this time. In the case of Ash Grove Cement Company's Rivergate Lime plant, there have been no discharges and no effluent data since substantive changes have occurred at the site. The site review has resulted in a low concern for possible toxics in the wastewater. The new permit requires monitoring to characterize the wastewater. The emphasis in this renewal has been on defining the data desired for reasonable potential analysis and on assuring that known parameters of the wastewater are addressed by appropriate limitation and/or monitoring in the permit.

Total Suspended Solids

Suspended solids were originally limited at AGC due to technology based guidelines. Since then the calcium oxide process has been removed from the site. When the existing limitation is compared to the state water quality standards no more stringent requirement is needed for protection of the river from the AGC discharge of this parameter. Based on anti backsliding, no less stringent limitation may be set in this permit.

pH

The existing (end of pipe) limitation for pH is set at the basin standard. No more stringent standard is needed. No less stringent limitation may be set.

Chlorine Residual

The majority of the wastewater is the non-contact cooling water that was chlorinated as well water. The cooling water probably de-chlorinates by the residence time in the rock wash impoundments. Characterization of the wastewater will show if there is chlorine residual in the discharge water. A limitation for chlorine residual has not been placed in the permit for outfall 001 pending the results of the characterization.

Temperature

Temperature considerations are addressed by the statewide standards in OAR 340-041-007 and 0028, the basin specific stream designations in the subbasin maps 340-041-340A and B, the 2006 Willamette River Temperature TMDL, and the thermal plume criteria in OAR 340-041-0053(2)(d). The application of these standards to the Ash Grove Cement Rivergate discharge is as follows.

The state narrative criteria in OAR 340-041-007 (16)(B)(iv) requires that industrial cooling waters be subjected to off-stream cooling prior to discharge. The Ash Grove cooling water discharge meets this criteria by 7 day residence in the rock wash basins.

State and Basin Standards, OAR 340-041-0028(4)(d) and subbasin map 340A and B: The Willamette River at river mile 3.3 serves as a migration corridor for salmonids. The standard states that the 7-day average maximum temperature of a stream identified as having a migration corridor use may not exceed 20.0°C (68.0 °F) and must, in addition, have cold water refugia. Thus, the applicable water quality standard would be that the discharge not cause a measurable increase in the river temperature above 20°C beyond the mixing zone. There is no Ash Grove Rivergate data to compare to this standard but the volume of flow from Rivergate is too small for such an effect when compared to the river flow. Data collection and reporting will be required by Schedule D Special Conditions of effluent temperature prior to any surface discharges.

Temperature TMDL For streams that do not meet water quality standards, including the Willamette River for temperature, OAR 340-041-0028(12)(b)(B) states: "Following a temperature TMDL or other cumulative effects analysis, waste load and load allocations will restrict all NPDES point sources and nonpoint sources to a cumulative increase of no greater than 0.3 degrees Celsius (0.5 Fahrenheit) above the applicable criteria after complete mixing in the water body, and at the point of maximum impact." This portion of the regulations was a starting point for allocating waste heat loads to sources. A number of sources with relatively small contributions of heat load were grouped together by the

TMDL into a cumulative "bubble" allocation including the Ash Grove Rivergate site. The bubble allocation from river mile 0 to 50 applies to 31 sources, and allocates a cumulative heat load allocation of 193 Million Kcals/Day. (2006 Willamette River TMDL, Chapter 4 pages 4-70 though 71 and 4-120 through 121.) The small point sources included in the bubble allocation are deemed in compliance with the TMDL requirements provided they continue to operate as they were operating at the time of the TMDL development (specifically the heat load analysis). When the heat load analysis was performed, Ash Grove Rivergate had not discharged for many years. The calculations would have used the standard flow and temperature assumptions used for sites without data (less than 0.5 MGD and maximum 22°C). Although the data is still to be collected to prove this, the contemplated discharges are much smaller in volume and likely lower in temperature than these assumptions. The time period of greatest concern for excess thermal load is June 1 to September 30. Compliance with the temperature TMDL is now a limitation in the permit and is assured by limiting surface water discharges to November 1 through April 30. From May 1 through October 30 the wastewater will be irrigated.

Thermal Plume Criteria

In addition to the TMDL requirements, the thermal plume criteria must be met. The Department's water quality standards include temperature thermal plume limitations in OAR 340-041-0053(d) similar to the recommendations in the April 2003 EPA Region 10 Temperature guidance. This section of the rules contains criteria to prevent potential adverse impacts that may result from thermal plumes. The criteria as they apply to Ash Grove Rivergate are discussed below:

- *OAR 340-041-0053(d)(A)*: Impairment of an active salmonid spawning area where spawning redds are located or likely to be located.
  Ash Grove Cement, Rivergate Lime Plant: Not applicable. There is no salmonid spawning in this segment of the Willamette River. This segment of the Willamette River is used as a salmonid migration corridor.
- *OAR 340-041-0053(d)(B)*: Acute impairment or instantaneous lethality is prevented or minimized by limiting potential fish exposure to temperatures of 32°C/89.6°F or more to less than 2 seconds.
  Ash Grove Cement, Rivergate Lime Plant: There is no data to compare to this standard but this temperature would be highly unlikely for the discharge. Data will be collected prior to any surface discharge. Discharge at this temperature is precluded by the TMDL limitation.
- *OAR 340-041-0053(d)(C)*: Thermal shock caused by a sudden increase in water temperature is prevented or minimized by limiting potential fish exposure to temperatures of 25°C/ 77°F or more to less than 5% of the cross-section of 100% of the 7Q10 flow of the waterbody.
  Ash Grove Cement, Rivergate Lime Plant: The outfall 001 (if flowing full = 0.30 m^2) is less than 5% of the cross section of the 7Q10 flow (0.05 *6200 = 310 m^2). There is no possibility for the discharge to cause thermal shock. Discharge at this temperature is precluded by the TMDL limitation.

- *OAR 340-041-0053(d)(D)*: Unless ambient temperature is 21°C/ 69.8°F or greater, migration blockage is prevented or minimized by limiting potential fish exposure to temperatures of 21°C/ 69.8°F or more to less than 25% of the cross-section of 100% of the 7Q10 flow of the waterbody.
  Ash Grove Cement, Rivergate Lime Plant: The outfall 001 (if flowing full = 0.30 m^2) is less than 25% of the cross section of the 7Q10 flow (0.25 * 6200 = 1550 m^2). Thus, by area, the Ash Grove Rivergate discharge could not possibly cause migration blockage.

This analysis concludes that the discharge from *Ash Grove Cement, Rivergate Lime Plant* is expected to meet the temperature thermal plume limitations in OAR 340-041-0053(d).

In summary the *Ash Grove Cement, Rivergate Lime Plant* will be monitored for temperature prior to any surface discharge. By meeting the TMDL limitation placed in the permit, the discharge would meet the water quality standard specific for the river reach, and the thermal plume standards.

Other Parameters

The limited testing results from 1987 on the well water indicate generally low levels of a number of metals and other parameters. The raw materials stored and used at this site (limestone and dolomite rocks) have been tested so the Ash Grove agricultural products could achieve the certification as organic. Those tests indicate non-detect for most metals with low levels for arsenic, lead, and zinc. The site assessment did not indicate significant problems in site groundwater. Since parameters potentially of concern are low or absent in the well water, the groundwater and the raw materials and processes on site, the need for further characterization of the waste stream is limited. Because data is absent some wastewater characterization is required under the new permit.

Flowrate

The volume of wastewater from the cooling water and the tunnel are presently estimated and are needed for calculations and for projecting the effects of changing or eliminating either of these sources.

Parameters Relevant To Irrigation

The irrigated water must be suitable for cover crop growth and for protection of groundwater. Groundwater concerns have been discussed under Section 2.5 above. Suitability for cover crop growth is adequately addressed through the characterization of the waste stream and is a requirement for the Irrigation Wastewater Management Plan.

5.4 Whole Effluent Toxicity

This is a type of testing that is not applicable to a minor industry with non-process wastewater.

5.5 Antidegradation

An Antidegradation Review was performed for this discharge. The permit is being renewed without any increase in discharge loadings. Permit renewals with the same (or lower) discharge loadings as the previous permit are not considered to lower water quality from the existing condition. Based on the antidegradation review, the proposed discharge complies with the Antidegradation Policy for Surface Waters found in OAR 340-041-0026 (see Appendix D).

6.0 DRAFT PERMIT DISCUSSION

6.1 Face Page

The face page provides information about the permittee, description of the wastewater, outfall locations, receiving stream information, permit approval authority, and a description of permitted activities. The permittee is authorized to construct, install, modify, or operate a wastewater collection, treatment, control and disposal system. The permit allows discharge to the Willamette River and to irrigation on site subject to limits set by Schedule A and the following Schedules. All other discharges are prohibited.

The face page of this renewal changes the list of permitted wastewater source types, reducing the list to non-contact cooling water, stormwater, and infiltration. The discharge to the river remains outfall 001 at river mile 3.3; discharge to irrigation is now defined as outfall 002 and occurs on site.

In accordance with state and federal law, NPDES permits shall be effective for a fixed term not to exceed 5 years. Upon issuance, this permit will be effective for no more than 5 years expiring on December 31, 2014.

6.2 Schedule A, Waste Discharge Limitations

The proposed Schedule A follows below. Note the right hand column is only here in the evaluation report. This information is given because the type of limitation, TBEL OR WQBEL, and the flow basis are relevant if a violation occurs and an enforcement action is needed.

In general, at renewal the existing limitation or a more stringent limitation is placed in the permit. For Ash Grove at Rivergate, the limitations for TSS, pH and flow are the same as at the last renewal because no more stringent requirement was needed. Temperature is limited by requiring operations consistent with the Willamette TMDL issued since the previous renewal.

The regulatory mixing zone remains the same as at the previous renewal but the description has been clarified.

Discharge is now defined as to surface water or to irrigation. Irrigation practices are now subject to limitations.

SCHEDULE A
Waste Discharge Limitations

1. **OUTFALL 001 to Willamette River**
   a. Discharge to state waters is permitted only during November 1 through April 30 and is required only during wet weather when the hydraulic loading would exceed the capacity of the Outfall 002 Irrigation site and must occur in accordance with the limitations herein.

OUTFALL 001 LIMITATIONS		
Parameter	**Limitation**	
Total Suspended Solids	25	mg/L monthly average concentration
Total Suspended Solids	50	mg/L daily maximum concentration
pH	6.5 -8.5	Within the range at all times, Standard Units
Temperature	Comply with small point source "bubble" allocation by continuing to operate in accordance with practices as described in the permit application, the permit evaluation reports and the Willamette River TMDL. No discharge May 1 through October 31.	
Flow	13,000	gallons per day maximum

   b. Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-041 and 340-045-0080 except in the following defined mixing zone:

   The Mixing Zone is defined as that portion of the river along the riverbank 3 feet wide extending to the property line up and down stream.

2. **OUTFALL 002 to Land Irrigation Site**
   a. Except for surface discharge as defined in 1.a above, all wastewater from the permitted source types shall be distributed via irrigation to the designated area in the south east portion of the facility property for dissipation by evapotranspiration and controlled seepage following sound irrigation practices so as to prevent:

   (1) Prolonged ponding of treated reclaimed water on the ground surface;
   (2) Surface runoff or subsurface drainage through drainage tile;
   (3) The creation of odors, fly and mosquito breeding or other nuisance conditions;
   (4) The overloading of land with nutrients, organics, or other pollutant parameters; and,
   (5) Impairment of existing or potential beneficial uses of groundwater.

   b. Wastewater that is disposed of on land shall be disposed of on a deep-rooted cover crop to insure maximum infiltration and evapotranspiration.

   c. All activities pertaining to the management, treatment and disposal of the authorized wastewater and maintenance of the land application site shall be conducted in accordance with the approved Irrigation Wastewater Management Plan as required in Schedule D.1 of this permit, and any approved updates and amendments. No changes or amendments may be made in the approved plan without written approval by the Department.

   d. The permittee shall, during all times of disposal, provide personnel whose primary responsibilities are to assure the continuous performance of the disposal system within the limitations of this permit.

e. No activities shall be conducted that could cause an adverse impact on existing or potential beneficial uses of groundwater. All wastewater and process related residuals will be managed and disposed in a manner that will prevent a violation of the Groundwater Quality Protection Rules (OAR 340-040).

All settling pond waste solids must be used or disposed in a manner that will prevent their entry into the Willamette River and not create health hazards or nuisance conditions.

6.3 Schedule B – Minimum Monitoring and Reporting Requirements

6.3.1 Monitoring Requirements

Monitoring requirements are broken into separate tables with explanatory footnotes for the surface water discharge and the irrigation land discharge. Analytical methods and quantitation limits are referenced by link to the department website.

6.3.2 Reporting Requirements

Explicit reporting requirements are given including specifics regarding the reporting of irrigation monitoring.

SCHEDULE B
Minimum Monitoring and Reporting Requirements

1. **Minimum Monitoring Requirements**
The permittee shall monitor the parameters as specified below at the locations indicated.

OUTFALL 001 (Willamette River)
Samples shall be collected prior to discharge to the Willamette River at an identified sample point SP subject to approval by the Department.

Item or Parameter	Site	Minimum Frequency	Type of Sample
Monthly Reporting			
Total Suspended Solids	SP	Daily when discharging	Grab[1,2]
pH (Standard units, 0.1 SU accuracy)	SP	Continuous when discharging	Continuous Recorder[1,2]
Temperature (°C, °F)	SP	Continuous when discharging	Continuous Recorder[1,2]
Total Flow (GPD)	SP	Daily when discharging	Measurement

OUTFALL 002 (Land Irrigation Site)
Samples shall be collected prior to discharge to the land application/irrigation site at an irrigation sample point ISP identified subject to approval by the Department.

Item or Parameter	Site	Minimum Frequency	Type of Sample
Monthly Reporting			
# of Days Irrigating	ISP	Record daily, report monthly	Record and report
pH (meter on site within 15 min)	ISP	Monthly	Grab (or continuous recorder)[1,2]
Total Flow (GPD)	ISP	Monthly total/Daily average	Measurement/Calculation

Annual Reporting[3]			
Quantity Irrigated[3] (inches/acre)	ISP	Monthly	Calculation
Flow Meter Calibration[3]	ISP	Annually	Verification
Irrigation piping and system components inspection[3]	ISP	Monthly when irrigating	Record the date, time and results of inspection
Failures of Irrigation system piping and other components[3]	ISP	Per occurrence	Record the date and time of the failure and describe the event and the remedy, including what happened to the irrigation water

NOTES:

1 The Permittee should use an approved test method, as indicated in 40 CFR 136.3, and whenever possible with a Quantitation Limit (QL) that is less than or equal to that listed in Revised RPA IMD, Appendix B Quantitation Limits Tables, November 2007 located on the web at http://www.deq.state.or.us/wq/pubs/imds/rpaammend.pdf. The Permittee must ensure that all monitoring analysis reports contain both the QL and detection level of the method as defined therein. Analyses for water quality parameters with effluent limits should use methods and procedures resulting in minimum QLs.

2 On-site analyses shall be performed by personnel fully trained and capable of proper calibration and operation of the instrument. Operator shall maintain instrument calibration log and meet the analytical requirements of the method as detailed in footnote 1.

3 Outfall 002 Irrigation Reporting is due annually in the report described below in Schedule B 2. f. except items reported monthly noted above and reported as described below in Schedule B 2.a.

2. Minimum Reporting Requirements

a. **Reporting Frequency:** Except as noted above, the reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the month following sampling. The monthly reports must indicate for outfall 001 either the number of days of surface discharge or "no-discharge" and for outfall 002 either the number of days of irrigation or "no irrigation" as well as the results of monitoring.

b. **Report Submittal Address:**

DEQ Northwest Region Water Quality, attn: Mer Wiren,
2020 SW Fourth Ave., Ste 400,
Portland, OR 97201-4987.

c. **Reporting Forms:** Monitoring results must be reported on approved forms such as the EPA 3320 form. The EPA 3320 Form is not required to be used if the permittee uses a form(s) that is approved and includes all the discharge data required by the permit, the facility information and the certification/signature statement. The permittee must ensure that all monitoring analysis reports contain both the QL and detection level of the method, as well as the units of the results.

d. **Reporting Conventions:** For sample results below the detection level, the result shall be reported as less than the laboratory detection level (for example "<1.0"). For sample results above the detection limit and below the quantitation limit, the results shall be reported as "eDL" (for example "e1.0"). For sample results above the quantitation limit, the results shall be reported as the numeric laboratory result.

e. **Laboratory Requirements:** The laboratory used by the permittee to analyze samples must have a quality assurance/quality control (QA/QC) program to verify the accuracy of sample analyses. If QA/QC requirements are not met for any analysis, the results must be included in the report, but not used in the calculations required by this permit. When possible, the permittee must re-sample in a timely manner for parameters failing QA/QC requirements, analyze the samples, and report the results.

f. **Outfall 002:** By no later than January 15 of each year, the permittee shall submit a report to the Department that provides a log of wastewater irrigation, including the date of irrigation, the area and location of land irrigated, the inches of water applied, and any deviations from site management practices in the Irrigation Wastewater Management Plan required in Schedule D.1 of this permit.

6.4 Schedule D - Special Conditions

The proposed Schedule D follows below including requirements for an Irrigation Wastewater Management Plan and a Wastewater Characterization Sampling Plan. The characterization is necessary because there is almost no historic data on the site wastewater, the sources on site have changed, the volumes are estimated and the current practice of irrigating all the wastewater will have to be modified with either source elimination or surface discharge. The wastewater needs to be characterized prior to surface discharge but also with regard to the irrigation site and groundwater protection.

Monitoring and reporting was considered for metals, cyanide, and total phenols (in accordance with the department's Internal Management Directive, concerning Reasonable Potential Analysis for Toxic Pollutants at industrial sites). Based on review of the well water data, the analysis of the raw materials (limestone and dolomite) for Organic Product designation, and the contaminant survey of the site, monitoring for most parameters was ruled out as unnecessary. The remaining monitoring is a minimum number of samples required. Arsenic, lead, mercury and zinc sampling may be suspended after 2 non-detect results in a row with analyses by an approved method and at the correct quantitation limit.

SCHEDULE D
Special Conditions

1. No later than December 31, 2012 the Permittee shall submit to the Department an Irrigation Wastewater Management Plan or documentation that all sources of process or process-related wastewater are no longer present. The plan shall be prepared in accordance with the Department's Internal Management Directive – Operations Monitoring and Management (OM&M) Plans for Land Application of Non-Sanitary Wastewater, November 2002. The plan shall outline the methods of land application and disposal of irrigation water, including the conditions for irrigation, both during the growing season and during the winter months, and an evaluation of the hydraulic and nutrient loading rates at which the irrigation water shall be applied to ensure compliance with the terms of this permit. Upon Department approval, the permittee shall implement the plan.

2. Wastewater Characterization Sampling: No surface water discharges shall occur until the completion of the wastewater characterization. The Permittee shall submit a wastewater characterization sampling plan by September 1, 2011 incorporating at a minimum the sampling below in order to characterize the wastewater at the Rivergate site. The characterization shall be completed no later than December 31, 2011. These samples shall be collected from the combined wastewater and be representative of the wastewater to be irrigated or discharged to surface waters. Analytical methods and quantitation limits shall be as in Schedule B (1) Note 1above.

Item or Parameter	Site	Minimum Number of Samples per Site	Type of Sample
TSS	ISP	4	Grab
pH	ISP	4	Grab
Chlorine Residual[1]	ISP	4	Grab
Temperature[2]	ISP	4	Grab
Arsenic, Total & Inorganic[3]	ISP	4	Grab
Pb, Zn[3]	ISP	4	Grab

[1] Chlorine Residual may be discontinued if none of the wastewater streams contain or originated as chlorinated well water.
[2] Temperature monitoring includes report the time of day sampled and ambient air temperature.
[3] For the arsenic and metal samples the minimum number of samples is 2 if results are "non-detect" at the correct quantitation limit or 4 if results are detected (see Schedule B (1) Note 1).

3. The Permittee shall not be required to perform a hydrogeologic characterization or groundwater monitoring during the term of this permit, provided that:
   a. the facilities are operated in accordance with the permit conditions, and;
   b. there are no adverse groundwater quality impacts (complaints or other indirect evidence) resulting from the facility's operation.

   If warranted at permit renewal, the Department may re-evaluate the need for a full assessment of the facility's impact on groundwater quality.

4. Except as provided in OAR 340-052-0045, prior to constructing or modifying any wastewater control facilities, detailed plans and specifications shall be approved in writing by the Department. Following approval of the plans, all construction shall be in strict conformance with the plans unless otherwise approved in writing by the Department.

5. The Permittee shall, during all times of disposal, provide personnel whose primary responsibilities are to assure the continuous performance of the disposal system within the limitations of this permit.

6. An adequate contingency plan for the prevention and handling of spills and unplanned discharges shall be in force at all times. A continuing program of employee orientation and education shall be maintained to ensure awareness of the necessity of good in-plant control and quick and proper action in the event of a spill or accident.

6.5 Schedule F, NPDES General Conditions

These conditions are standard to all NPDES permits and include language regarding operation and maintenance of facilities, monitoring and record keeping, and reporting requirements. The General Conditions were revised in 2010. A summary of the changes is as follows:

- There are additional citations to the federal Clean Water Act and CFR, including references to standards for sewage sludge use or disposal.
- There is additional language regarding federal penalties.
- Bypass language has been made consistent with the CFR.
- Overflow language has been eliminated.
- Requirements regarding emergency response and public notification plans have been made more explicit.
- Language pertaining to duty to provide information has been made more explicit.
- Confidentiality of information is addressed.
- A definition of CBOD has been added.

7.0 NEXT STEPS

7.1 Public Comment Period

The proposed NPDES permit will be made available for public comment for 35 days. Public notice and links to the proposed permit will be posted on the Departments website, advertized in newspapers for major sources, and sent to parties that subscribe to the Department's pertinent public notice e-mail lists. A Public Hearing will be scheduled if requested by sufficient people (10 or more people, or by an authorized person representing an organization of at least 10 people). An additional public notice would be published to advertise a public hearing.

7.2 Response to Comments

The Department will respond to comments received during the comment period. All those providing comment will receive a copy of the Department's response. Interested parties may also request a copy of the Department's response. Once comments are received and evaluated, the Department will decide whether to issue the permit as proposed or make changes to the permit or deny the permit.

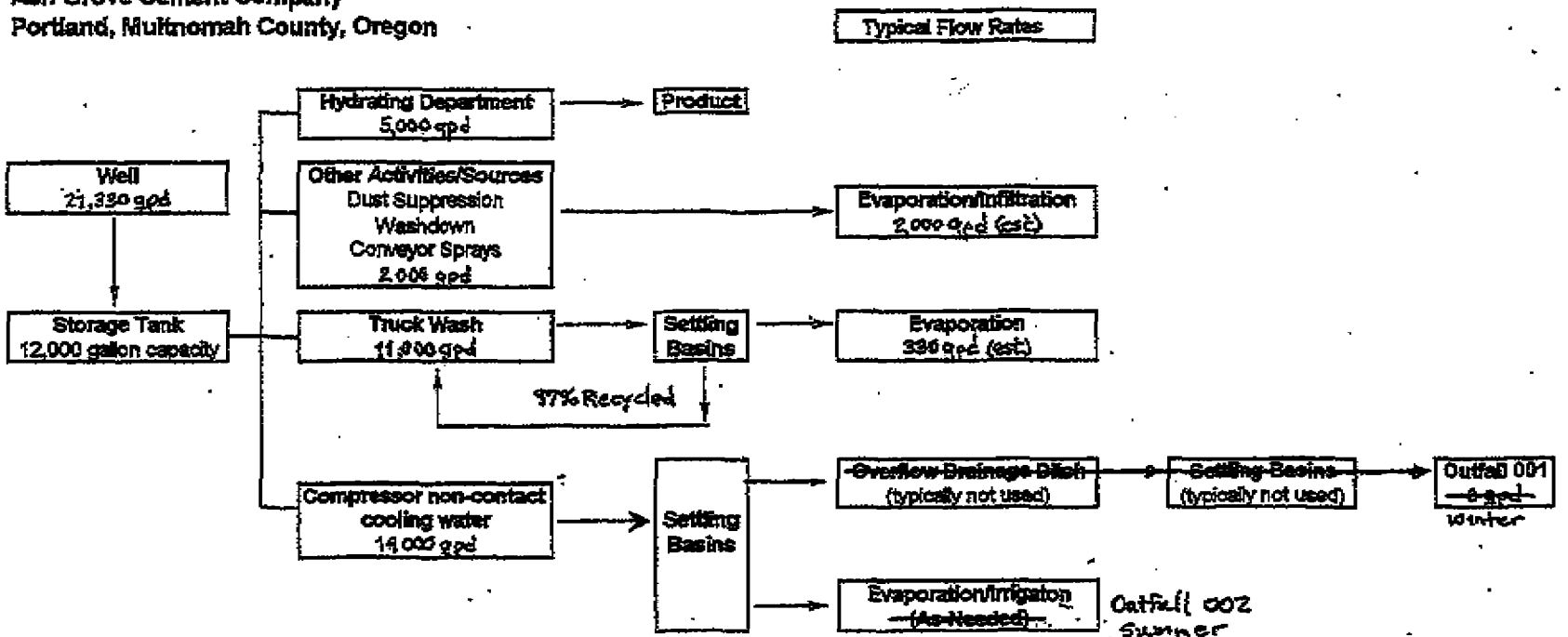
7.3 Modifications to Fact Sheet and Permit Evaluation Report

Depending on the nature of the comments and any changes made to the permit as result of comments, this fact sheet and evaluation report may be modified. The Department may also choose to update the fact sheet and evaluation report through memorandum or addendum. If substantive changes are made to the permit, an additional round of public comment may occur.

7.4 Issuance

Once comments are received and evaluated, the Department will decide whether to issue the permit as proposed or make changes to the permit or deny the permit. The Permittee will be notified of the department decision. At issuance, the finalized permit is mailed to the permittee and goes into effect.

Schematic of Water Flow
Rivergate Lime Plant
Ash Grove Cement Company
Portland, Multnomah County, Oregon

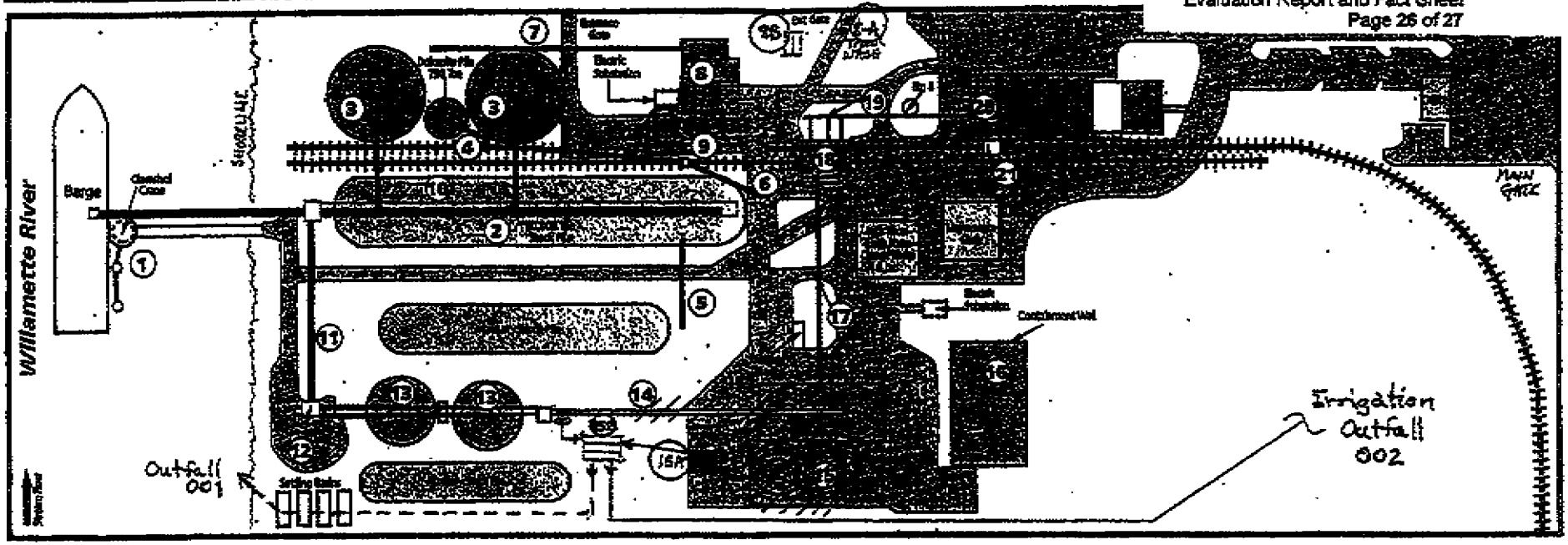


2009

Schematic Water Flow
Amended 3-7-11 H.Wiren(DEQ)
Based on information and
New Permit 2011

AGC0012039

Ash Grove Rivergate Lime Pla



Raw Material Receiving

1. Limestone barge unloading
2. Main stockpile conveyor
3. Agricultural limestone conveyors
4. Dolomite unloading and stockpiling (railcar)
5. Stacker conveyor
6. Railcar unloading conveyor

Ag Mills

7. Agricultural limestone reclaim conveyor
8. Ag Mill Department
   - Three 66" Raymond roller mills
   - One 73" Raymond roller mill
   - Total Output: 135 STPH
9. Storage silos
   - 1,500 tons Agricultural lime
   - 1,500 tons Limestone flour
   - 750 tons Dolomite

— Exit Gate
8-A = Truck Wash
8-B = Truck Wash Settling Basins (no discharge) No outlet - reuse

Kilns

10. Tunnel reclaim conveyor
11. Screening feed conveyor
12. Triple deck vibrating screen
13. Sized chemical grade limestone stockpiles
14. Kiln feed conveyor (tunnel)
15. Kiln Department — Removed
    - Two Model 100 Calcimatic kilns — Total Output: 425 STPH
    - One model 200 Calcimatic kiln — Fuels: Oil, coal, natural gas, or landfill gas
16. Fuel oil storage
    - 475,000 gallon capacity
17. Quicklime storage conveyor (Settling Basin - No Discharge)
18. Quicklime sting, crushing, and storage
    - Two Sturdivant cone crushers
    - One Pennsylvania impact mill
    - 2,775 ton storage capacity

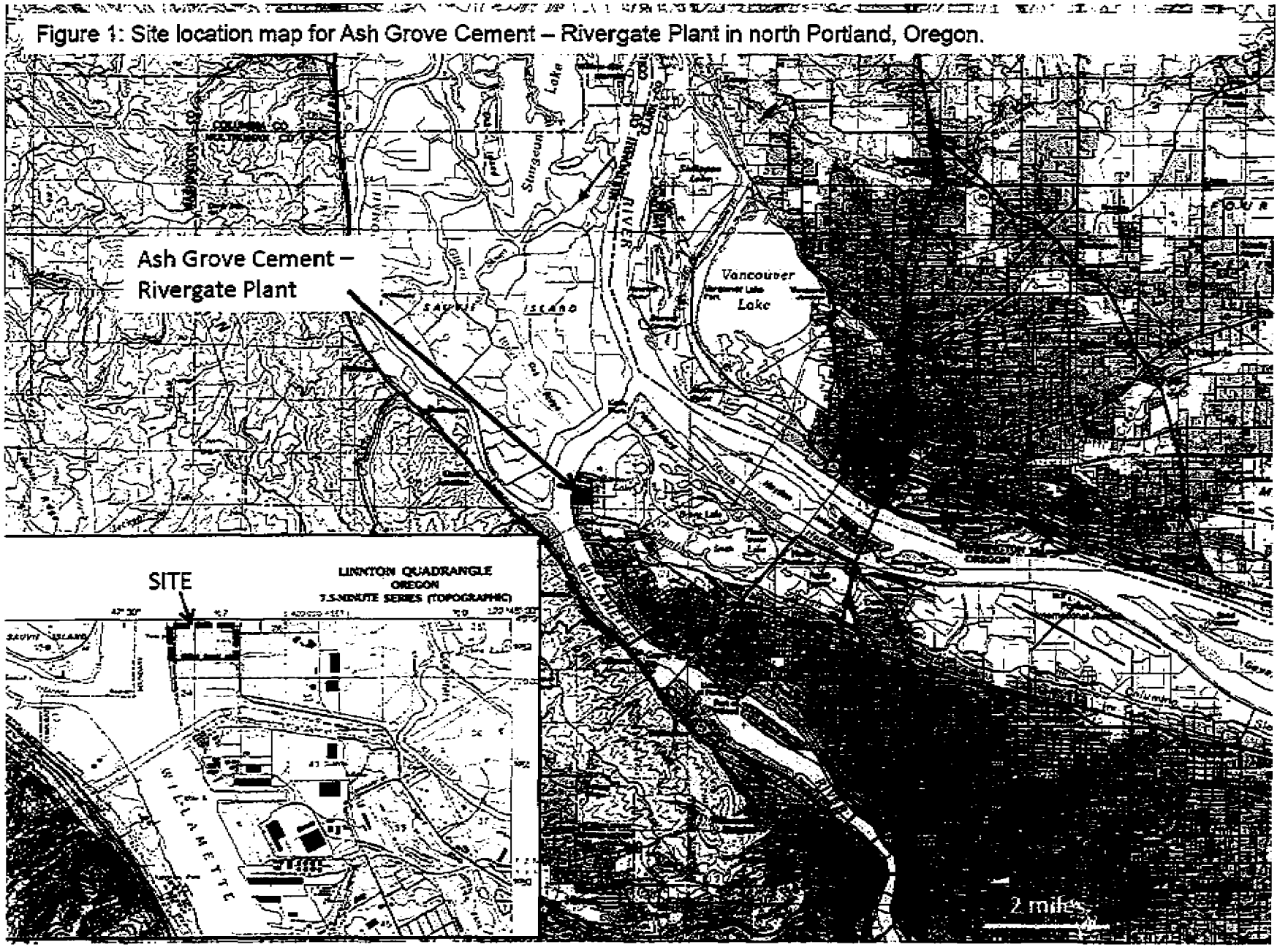
15A Compressor Building
15B Rockwash Basins

Hydrator

19. Hydrate feed conveyor
20. Hydrate department
    - One Kritzer hydrator
    - Total Output: 4 STPH
21. Hydrate lime storage
    - 270 ton capacity
    - Water Tower above
    - Well in/at maintenance shop immediate chlorination

Site Plan From Ash Grove Cement
Amended 1-14-11 by M. Wurm
based on verbal information
and other site maps from
Glenn Dollar

Figure 1: Site location map for Ash Grove Cement – Rivergate Plant in north Portland, Oregon.



Ash Grove Cement Company

NPDES Permit # 102465

Schedule B Outfall 002 (Land Application /Irrigation Site) requires the identification of an irrigation sampling point (ISP) which is subject to approval by ODEQ. Ash Grove Cement Company would like to propose a location on a pipe which connects to the hose (please refer to the pictures attached below) which extends to the land application/irrigation site.

Ash Grove Cement Company would further like to submit for approval per Schedule D, Special Conditions, the following characterization sampling plan. The samples will be collected at the above referenced ISP when pumping to the land application/irrigation site.

Item or Parameter	Site	Minimum Number of Samples per Site	Type of Sample
TSS	ISP	4	Grab
pH	ISP	4	Grab
Chlorine Residual[1]	ISP	4	Grab
Temperature[2]	ISP	4	Grab
Arsenic, Total & Inorganic[3]	ISP	4	Grab
Pb, Zn[3]	ISP	4	Grab

The characterization shall be completed no later than December 31, 2011, provided a sufficient supply of water is available for collecting a representative sample.

Analytical methods and quantitation limits shall be as outlined below;

The Permittee should use an approved test method, as indicated in 40 CFR 136.3, and whenever possible with a Quantitation Limit (QL) that is less than or equal to that listed in Revised RPA IMD, Appendix B Quantitation Limits Tables, November 2007 located on the web at http://www.deq.state.or.us/wq/pubs/imds/rpaammend.pdf. The Permittee must ensure that all monitoring analysis reports contain both the QL and detection level of the method as defined therein. Analyses for water quality parameters with effluent limits should use methods and procedures resulting in minimum QLs.

Oregon
John A. Kitzhaber, MD, Governor

Department of Environmental Quality
Northwest Region Portland Office/Water Quality
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6957
TTY 711

July 6, 2011

Glenn Dollar
Ash Grove Cement Company
13939 N Rivergate Blvd
Portland, OR 97203-6608

Re: NPDES Permit No. 102465
File #: 3690
Site: Ash Grove Cement - Rivergate Lime Plant
County: Multnomah

Mr. Dollar:

We have completed our review of your Wastewater Characterization Sampling Plan and Designation of ISP as submitted electronically on June 23, 2011. Thank you, these documents fulfill the requirement for submitting this plan and designation which was required for submittal by September 1, 2011.

The next step will be to perform the characterization which is to be completed prior to December 31, 2011, per permit #102465 Schedule D paragraph 2.

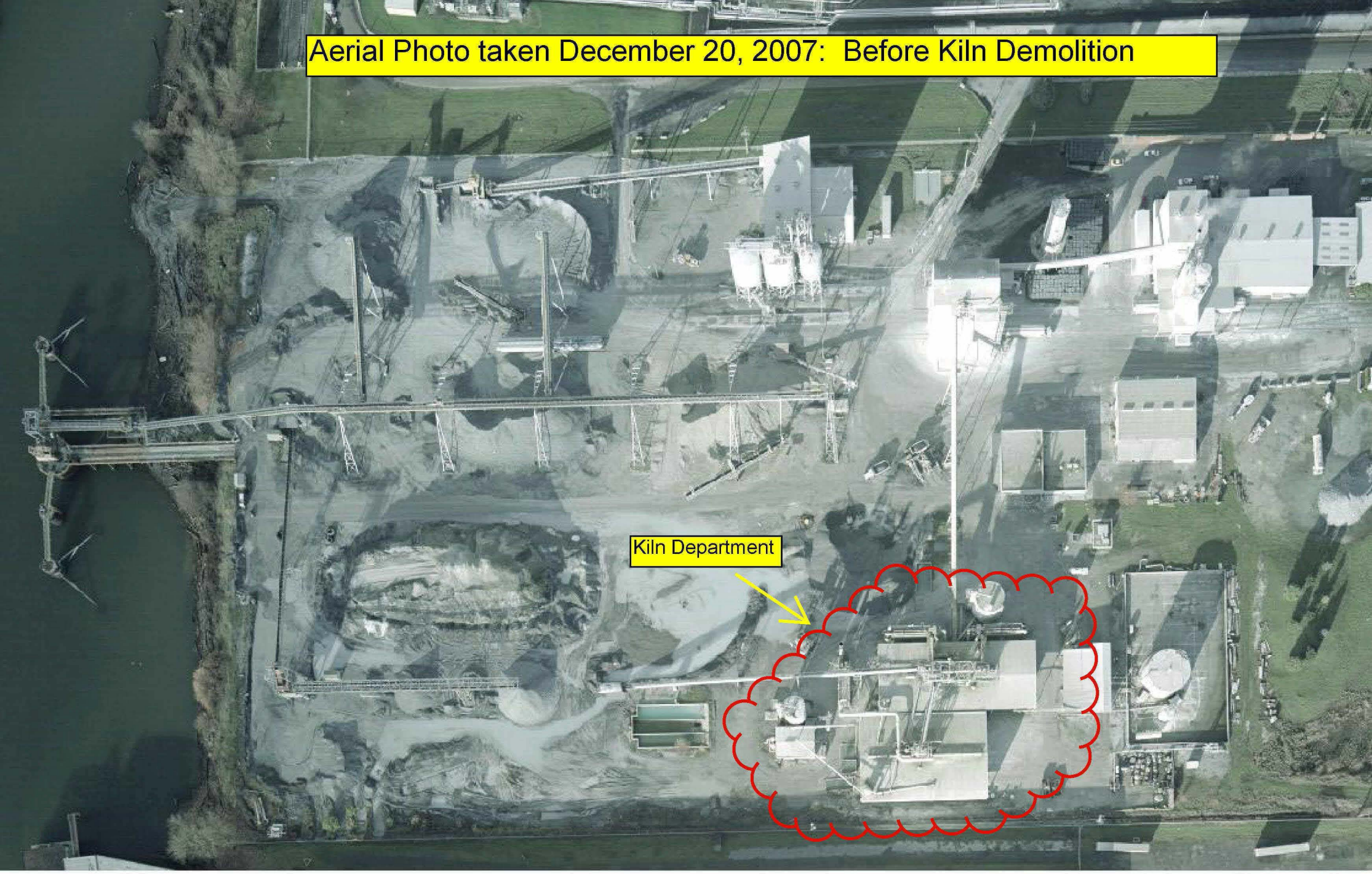
Please keep me posted on the progress toward eliminating the cooling water and remember to submit documentation of the elimination of all process and process related wastewaters or the OM&M based Irrigation Wastewater Management Plan by January 1, 2012.

Lastly, when irrigation resumes, be sure to monitor as described in Schedule B. Should you have any questions, please contact me at (503) 229-5292.

Sincerely,

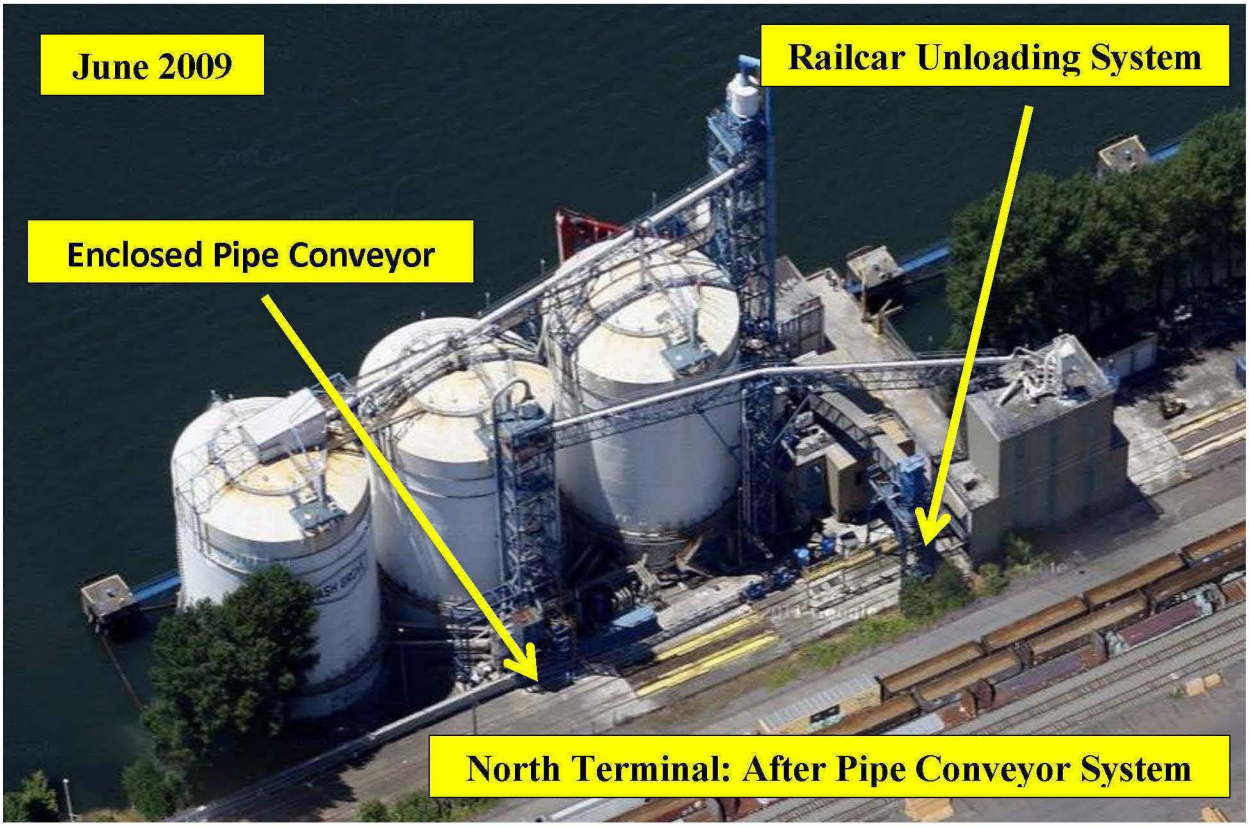
Mer Wiren, P.E.
Environmental Engineer
Northwest Region Water Quality
Department of Environmental Quality
2020 SW Fourth Ave, Suite 400
Portland, OR 97201

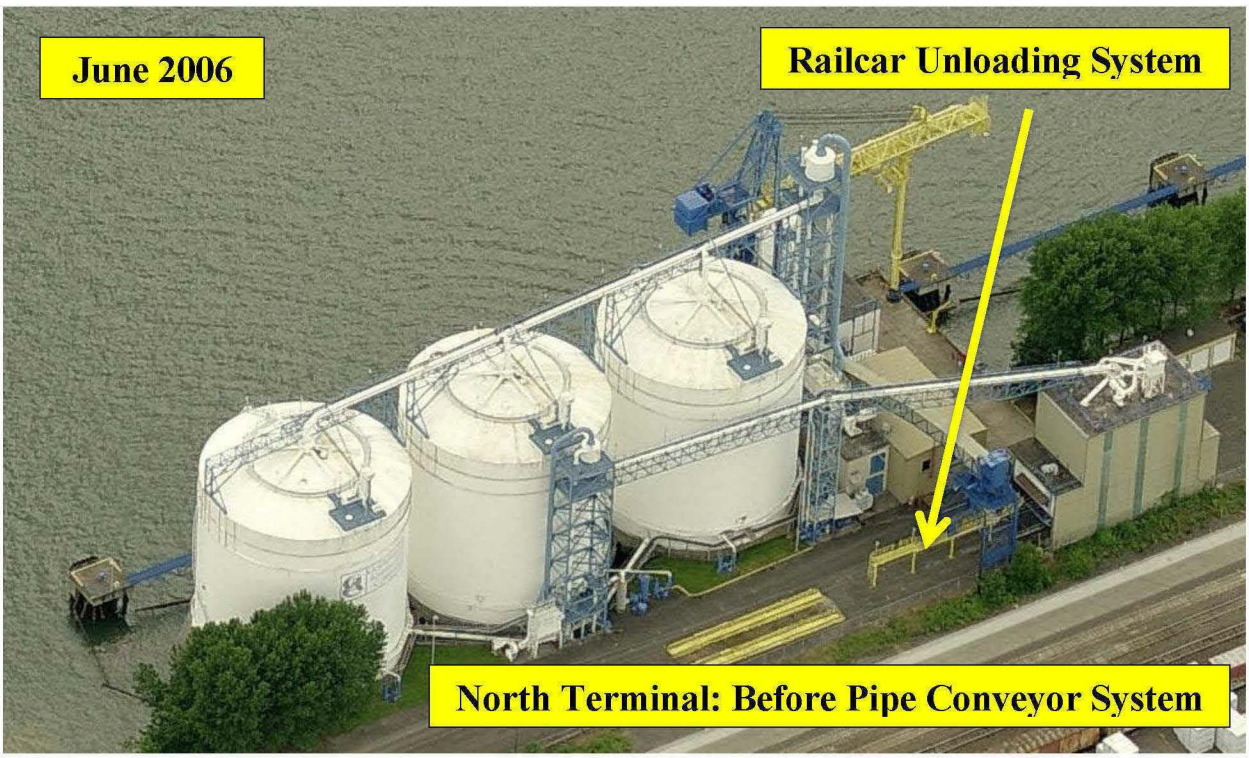
Enclosure: Ash grove Cement Company, NPDES Permit #102465, Wastewater Characterization Plan and Designation of ISP as submitted electronically June 23, 2011

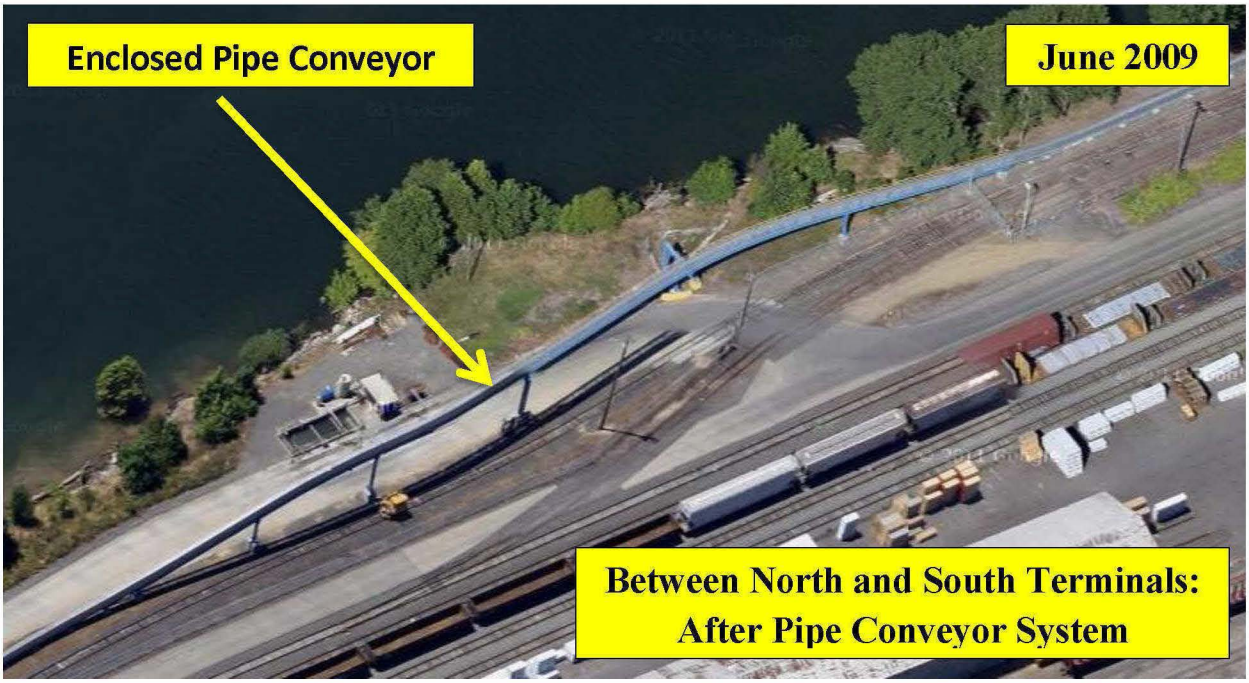

Aerial Photo taken December 20, 2007: Before Kiln Demolition
Kiln Department

Aerial Photo taken November 19, 2008: After Kiln Demolition
Kiln Department

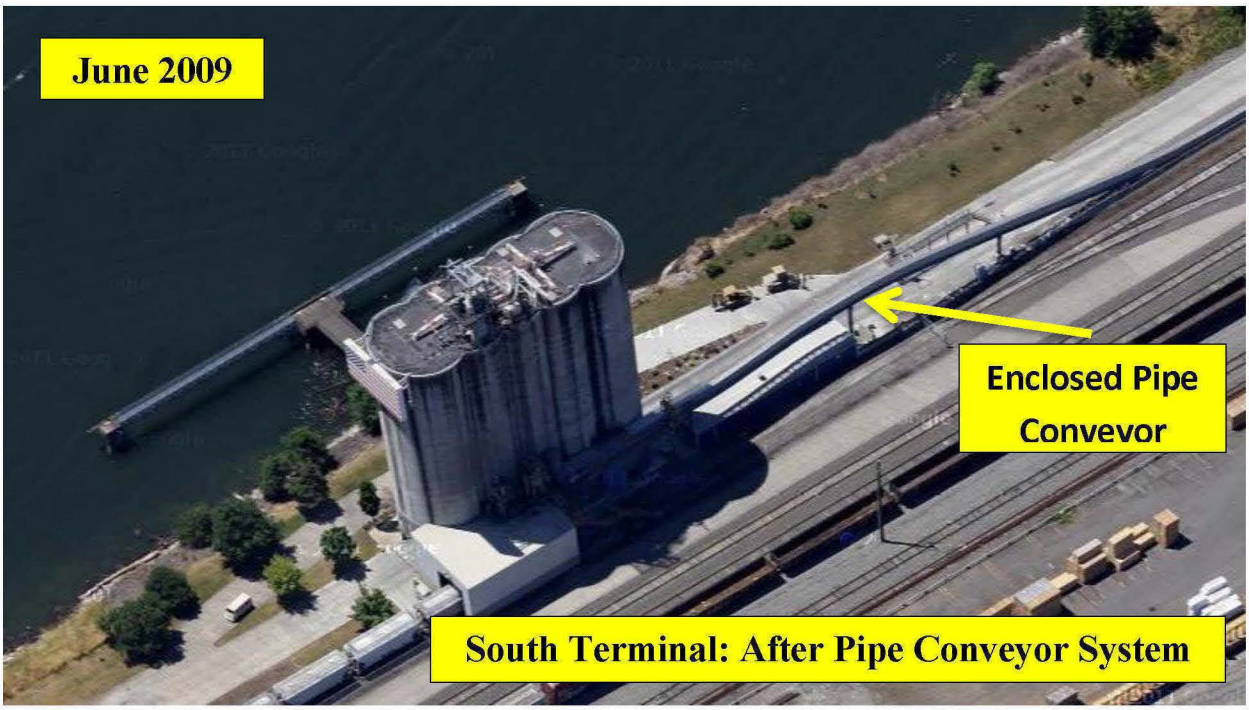
AGC0012046


June 2009
Railcar Unloading System
Enclosed Pipe Conveyor
North Terminal: After Pipe Conveyor System


June 2006
Railcar Unloading System
North Terminal: Before Pipe Conveyor System


Enclosed Pipe Conveyor
June 2009
Between North and South Terminals:
After Pipe Conveyor System

June 2006
Between North and South Terminals:
After Pipe Conveyor System


June 2009
Enclosed Pipe Convevor
South Terminal: After Pipe Conveyor System

June 2006
South Terminal: Before Pipe Conveyor System

N

monument no. 6
point on north property line
x = 1,415,240.64
y = 721,811.04

monument no. 5
x = 1,415,819.97
y = 721,763.65
elev. = 32.66

WILLAMETTE RIVER

STREAM FLOW

PROPERTY LINE

EAST BASE LINE

RIGHT OF WAY

SOUTH BOUNDARY—BASE LINE

ENTRANCE GATE

EXIT GATE

AG RECLAIM SCREEN

RECLAIMING CONVEYOR

LIMESTONE PILE 10,000 TON

DOLOMITE PILE 750 TON

LIMESTONE PILE 10,000 TON

STOCKPILE CONVEYOR

STOCKPILE CONVEYOR

RECEIVING HOPPER A-RH-101

HINGED BELT CONVEYOR A-HBC-102

CAR STOP

TUNNEL

RAIL RECEIVING CONVEYOR

50,000 TON STOCK PILE

RAIL UNLOADER

STOCKPILE CONV. A-SC-103

TRIPPER A-TRC-104

CONVEYOR SUPPORT BENT

STACKER CONV.

CLAMSHELL CRANE A-CSC-105

DOCK OFFICE

MOD NO. 1

MOD NO. 2

SCREEN FEED CONVEYOR A-SFC-114

GRADED STOCK PILES

SETTLING BASINS

TUNNEL

SETTLING BASINS

ELECTRICIANS BUILDING

NATURAL GAS

AG TRUCK WASH RACK

MILL No. 4

MILL BLDG.

ELECTRIC SUBSTATION

SETTLING BASIN

TRUCK LOAD-OUT BINS

PENN CRUSHER

BULK QUICKLIME BINS

COVERED HYDRATE FEED CONVEYOR

BIN 8

TRUCK & TRACK SCALE

SCALE HOUSE

OIL STORAGE

FUEL PUMPS

MAINTENANCE SHOP

STORES LUNCH ROOM CHANGE HOUSE & LAB

BICYCLE RACKS

COOLER OUT CONVEYOR

SETTLING BASIN

BIN 9

ELECTRIC SUBSTATION

DIKE

FILL & DISPENSE TRUCK RACK

TANK No. 5 (425,000 GAL)

TANK No. 4 (36,000 GAL)

TANK No. 2 (4,000 GAL)

BONE YARD

NATURAL GAS PIPING AREA

HYDRATE MILL BLDG.

PACKAGED LIME STORAGE

WAREHOUSE

HYDRATE BULK BIN LOADING

STORAGE SHEDS

EMPLOYEE PARKING

WALK

OFFICE

OFFICE PARKING

CAR STOP

monument no. 1
point on south property line and base line

monument no. 2
n.e. corner portland manufacturing co.
x = 1,415,374.24
y = 721,099.04

monument no. 3
point on south property line

monument no. 4
s.e. corner property
x = 1,415,900.00
y = 721,055.86
elev. = 31.10

ASH GROVE CEMENT CO.

DR'N. JL	RIVERGATE PLANT
CK'D	SITE PLAN
DATE 10/20/93	
SCALE 1" = 60'	DRAWING NUMBER Y 600
CAD FILE PLATPLOT	REV. 2
REV. 3	SHEET no. 1 of 1
DATE 1/15/11	
AP'VD BY GLW	

AGC0012050

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	001
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM / TO	2012	06	01	TO	2012	07	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids	SAMPLE MEASUREMENT			mg/L							
	PERMIT REQUIREMENT										
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT			GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.		503	247-5423	2012	07	02
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Signed for Carg Wright - Vacation

EPA Form 3320-1 (10-96) (REPLACES EPA FORM T-40 WHICH MAY NOT BE USED.) PAGE 1 OF 1

AGC0012051

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	05	01	TO	2012	06	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

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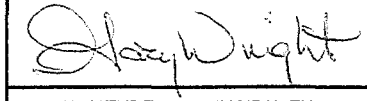
Total Suspended Solids	SAMPLE MEASUREMENT		50 mg/L	mg/L							
	PERMIT REQUIREMENT										
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT		13,000gpd	GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.		503	247-5423	2012	06	12
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012052

AGC0012053

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
102465	001

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	04	01	TO	2012	05	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids	SAMPLE MEASUREMENT		50 mg/L	mg/L							
	PERMIT REQUIREMENT										
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT		13,000gpd	GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Charles T Sunderland

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2012	05	14
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 102465
(17-19) DISCHARGE NUMBER: 001

MONITORING PERIOD
FROM YEAR 2012 MO 03 DAY 01 (20-21) (22-23) (24-25)
TO YEAR 2012 MO 04 DAY 01 (26-27) (28-29) (30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

AGC0012054

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids	SAMPLE MEASUREMENT		50 mg/L	mg/L							
	PERMIT REQUIREMENT										
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT		13,000gpd	GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 247-5423

DATE: YEAR 2012 MO 04 DAY 05

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
102465	001

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM / TO	2012	02	01		2012	03	02
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

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	PERMIT REQUIREMENT										
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	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT		13,000gpd	GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	503	247-5423	2012	03	06
TYPED OR PRINTED		AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012055

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM / TO	2012	01	01		2012	02	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids	SAMPLE MEASUREMENT		50 mg/L	mg/L							
	PERMIT REQUIREMENT										
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT		13,000gpd	GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE		DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.		503	247-5423	2012	02	03
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012056

AGC00012057

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
(2-16) (17-19)

102465	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	12	01	TO	2012	01	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids	SAMPLE MEASUREMENT			mg/L							
	PERMIT REQUIREMENT		50 mg/L								
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT			GPD							
	PERMIT REQUIREMENT		13,000gpd								
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2012	01	06
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	001
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

AGC0012058

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	11	01	TO	2011	12	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total Suspended Solids	SAMPLE MEASUREMENT			mg/L							
	PERMIT REQUIREMENT		50 mg/L								
pH (Standard units, 0.1 SU accuracy)	SAMPLE MEASUREMENT			SU							
	PERMIT REQUIREMENT										
Temperature (degrees C, Degrees F)	SAMPLE MEASUREMENT			Degrees F							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT			GPD							
	PERMIT REQUIREMENT		13,000gpd								
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2011	12	05
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012059

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	10	01	TO	2011	11	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

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NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total suspended solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Charles Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	Edward Dallas	503	247-5423	2011	11	01
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012060

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	09	01	TO	2011	10	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total suspended solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Charles Sunderland

TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2011	10	03
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 102465
(17-19) DISCHARGE NUMBER: 001

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	11	08	01	TO	11	09	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Total suspended solids	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
pH	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Temperature	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 247-5423

DATE: YEAR 2011 | MO 09 | DAY 01

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012061

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
(2-16) (17-19)

102465	002
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

AGC0012062

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	06	01	TO	2012	07	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

[X] Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT			SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT			days							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT			GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.		503	247-5423	2012	07	02
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Signed for Caryn Wright - Vacation

AGC0012063

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

(2-16) PERMIT NUMBER	(17-19) DISCHARGE NUMBER
102465	002

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	05	01	TO	2012	06	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT			SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT			days							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT			GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2012	06	12
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	002
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM / TO	2012	01	01		2012	02	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT	8.33		SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT	3		days							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT	7909		GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	Sherry Wright	503	247-5423	2012	05	14
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012064

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	002
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2012	03	01	TO	2012	04	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

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NOTE: Read Instructions before completing this form

AGC0012065

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	(4 Card Only) QUALITY OR CONCENTRATION MINIMUM (38-45)	AVERAGE (46-53)	MAXIMUM (54-61)	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT	7.56		SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT	7		days							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT	8474		GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2012	04	05
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	002
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM / TO	2012	02	01		2012	03	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT	7.99		SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT	10		days							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT	7267		GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
503	247-5423	2012	03	06
AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012066

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16) PERMIT NUMBER: 102465
(17-19) DISCHARGE NUMBER: 002

MONITORING PERIOD
FROM YEAR 2012 MO 01 DAY 01 (20-21) (22-23) (24-25)
TO YEAR 2012 MO 02 DAY 01 (26-27) (28-29) (30-31)

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

AGC00012067

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT	9.04		SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT	12		days							
	PERMIT REQUIREMENT										
Total Flow (GPD)	SAMPLE MEASUREMENT	4943		GPD							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 NUMBER 247-5423

DATE: YEAR 2012 MO 02 DAY 03

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
(2-16) 102465 PERMIT NUMBER
(17-19) 002 DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	11	01	TO	2011	12	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT	8.87		SU						Monthly	Grab
	PERMIT REQUIREMENT										
# of days irrigating	SAMPLE MEASUREMENT	5		days							
	PERMIT REQUIREMENT										
Total flow (GPD)	SAMPLE MEASUREMENT	7415		gal/day							
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER
Charles T Sunderland
TYPED OR PRINTED

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SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE: AREA CODE 503 | NUMBER 247-5423

DATE: YEAR 2011 | MO 12 | DAY 06

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012068

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
(2-16)

102465	002
PERMIT NUMBER	DISCHARGE NUMBER

(17-19)

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	11	01	TO	2011	12	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☐ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
pH (meter on site within 15 minutes)	SAMPLE MEASUREMENT			SU						Monthly	Grab
	PERMIT REQUIREMENT	9.09									
# of days irrigating	SAMPLE MEASUREMENT			days							
	PERMIT REQUIREMENT	2									
Total Flow (gallons) Monthly total	SAMPLE MEASUREMENT			gal							
	PERMIT REQUIREMENT	19,279									
Total flow (gallons) Daily average	SAMPLE MEASUREMENT			gal							
	PERMIT REQUIREMENT	9639.5									
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE			DATE		
Charles T Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	Donna Dalton	503	247-5423	2011	12	06
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012069

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	002#
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	10	01	TO	2011	11	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Number of days Irrigating	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
pH - (meter on site within 15 minutes)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD) Monthly total	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD) Daily average	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Charles Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	Glenn Dallas	503	247-5423	2011	11	01
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC0012070

AGC0012071

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	002#
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	09	01	TO	2011	10	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

[X] Check here if No Discharge

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PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Number of days Irrigating	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
pH - (meter on site within 15 minutes)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD) Monthly total	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD) Daily average	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Charles Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.		503	247-5423	2011	10	03
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
NAME Ash Grove Cement Company
ADDRESS 13939 N Rivergate Blvd.
Portland, OR 97203

FACILITY LOCATION 13939 N Rivergate Blvd.
Portland, OR 97203

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

(2-16)	(17-19)
102465	#002
PERMIT NUMBER	DISCHARGE NUMBER

Form Approved.
OMB No. 2040-0004
Approval expires 05-31-98

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	2011	08	01	TO	2011	09	01
	(20-21)	(22-23)	(24-25)		(26-27)	(28-29)	(30-31)

☒ Check here if No Discharge

NOTE: Read Instructions before completing this form

PARAMETER (32-37)		(3 Card Only) QUANTITY OR LOADING (46-53) AVERAGE	(54-61) MAXIMUM	UNITS	(4 Card Only) QUALITY OR CONCENTRATION (38-45) MINIMUM	(46-53) AVERAGE	(54-61) MAXIMUM	UNITS	NO. EX (62-63)	FREQUENCY OF ANALYSIS (64-68)	SAMPLE TYPE (69-70)
Number of days Irrigating	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
pH - (meter on site within 15 minutes)	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD) Monthly total	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
Total flow (GPD) Daily average	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER		TELEPHONE			DATE		
Charles Sunderland	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.	Signature	503	247-5423	2011	09	01
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

AGC00012072

— CITY OF PORTLAND —
ENVIRONMENTAL SERVICES

Water Pollution Control Laboratory

6543 N. Burlington Avenue, Bldg 217, Portland, Oregon 97203 ▪ Dan Saltzman, Commissioner ▪ Dean Marriott, Director

August 29, 2012

RECEIVED
AUG 31 2012
Ash Grove Rivergate

Glenn Dollar
Ash Grove Cement Company
13939 N Rivergate Boulevard
Portland, OR 97203

RE: **NPDES 1200-Z Industrial Stormwater Discharge Permit Renewal**
Common Name: Ash Grove Cement
File Number: 107213
SIC Codes: 5032, 4491

Dear Mr. Dollar:

DEQ has assigned your site coverage under the revised 1200-Z permit. The revised permit is effective July 1, 2012 through June 30, 2017. Due to the size of the permit, this correspondence contains the first two pages of the permit. The rest of the permit can be downloaded from http://www.deq.state.or.us/wq/wqpermit/docs/general/npdes1200z/Final1200Zpermit.pdf If you need a hard copy of the permit, please contact your Permit Manager as noted below. **Please review the permit carefully. Some of the major changes to the permit are listed below.**

You are required to meet monitoring and corrective action requirements depending on the year of permit coverage (1st, 2nd, 3rd, and 4th). The table below provides the date ranges for meeting these requirements.

1st Year	2nd Year	3rd Year	4th Year	5th Year
July 1, 2012 to June 30, 2013	July 1, 2013 to June 30, 2014	July 1, 2014 to June 30, 2015	July 1, 2015 to June 30, 2016	July 1, 2016 to June 30, 2017

Response to Benchmark Exceedances:
There are tiered corrective action responses for benchmark exceedances. (Please see pages 17 and 18 of permit). The Tier II corrective action requirements are triggered in the 2nd year you are operating under the new permit. **Please use the benchmark monitoring data collected from your site during the** July 2013 to June 2014 **monitoring year to calculate the 2nd year geometric mean.**

Monitoring:
You must monitor for the pollutant parameters in the table below. There are new pollutant parameters to monitor such as impairment pollutants, additional pollutants, and sector specific benchmarks and numeric effluent limits for certain industrial sectors (please see pages 19 and 21 of permit). You are not required to begin monitoring for these parameters until the 1st year monitoring year (July 1, 2012 to June 30, 2013). If a parameter is listed more than once in the table below, you must sample according to the highest frequency and the laboratory results must meet the lowest concentration.

Monitoring requirement	Parameter	Concentration	Sampling Freq.*
Benchmark	pH	5.5 – 9.0 S.U.	4 X per yr. ea. yr.
Benchmark	Total Copper	0.020 mg/L	4 X per yr. ea. yr.
Benchmark	Total Lead	0.040 mg/L	4 X per yr. ea. yr.
Benchmark	Total Zinc	0.12 mg/L	4 X per yr. ea. yr.
Benchmark	Oil & Grease	10 mg/L	4 X per yr. ea. yr.
Benchmark	TSS	100 mg/L	4 X per yr. ea. yr.
Additional Pollutant	Total Cadmium	**	8 X over 1st 3 yrs.
Additional Pollutant	Total Nickel	**	8 X over 1st 3 yrs.
Additional Pollutant	Total Chromium	**	8 X over 1st 3 yrs.
Impairment Pollutant	Aldrin	0.003 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	DDT	0.0011 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	DDT Metabolite (DDE)	0.00001 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	Dieldrin	0.0025 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	Iron	1.0 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	Total PCB (based on the sum of the following Aroclors: 1016, 1221, 1232,1242, 1248, 1254 and 1260)	0.002 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	Pentachlorophenol	0.02 mg/L	2 X per yr. ea. yr.
Impairment Pollutant	Polynuclear Aromatic Hydrocarbons	(See Footnote 1)	2 X per yr. ea. yr.
Sector Specific Benchmark	Total Iron	1.0 mg/L	4 X per yr. ea. yr.
Sector Specific Benchmark	Total Aluminum	0.75 mg/L	4 X per yr. ea. yr.

* The permit contains additional requirements on the frequency and timing of sample collection, see pages 20-21.

** The laboratory must use federally approved analytical method 200.8 for NPDES reporting.

Footnote 1: Polynuclear Aromatic Hydrocarbons:	**Concentration**
Acenaphthene	0.095 mg/L
Anthracene	2.9 mg/L
Benz(a)anthracene	0.001 mg/L
Benzo(a)pyrene	0.001 mg/L
Benzo(b)fluoranthene 3,4	0.001 mg/L
Benzo(k)fluoranthene	0.001 mg/L
Chrysene	0.001 mg/L
Dibenz(a,h)anthracene	0.001 mg/L
Fluoranthene	0.014 mg/L
Fluorene	0.39 mg/L
Indeno(1,2,3-cd)pyrene	0.001 mg/L
Pyrene	0.29 mg/L

If you provided sampling information in your SWPCP that is different than the information in this table, you will need to modify the SWPCP to conform to the table. You do *not* need to send the modified plan to DEQ or the City.

The City of Portland has entered into an Intergovernmental Agreement with the DEQ to administrate permits for those facilities located within the City. Please check the City website http://www.portlandonline.com/bes/index.cfm?c=31844& for general information, technical assistance on best management practices, and forms. If you have any questions about this permit, please contact your BES stormwater permit manager:

Tim Dean
City of Portland, WPCL
6543 N Burlington Avenue
Portland, OR 97203-5452
503-823-5537
Tim.Dean@portlandoregon.gov

Sincerely,

Michael J. Pronold
Environmental Manager

Enclosure: Permit pages 1 & 2

cc: File

GENERAL PERMIT
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
STORMWATER DISCHARGE PERMIT

Department of Environmental Quality
811 S.W. Sixth Avenue, Portland, OR 97204
Telephone: (503) 229-5630 or 1-800-452-4011 toll free in Oregon
Issued pursuant to ORS 468B.050 and The Federal Clean Water Act

ISSUED TO:

SOURCES THAT ARE REQUIRED TO OBTAIN COVERAGE UNDER THIS PERMIT

A facility that may discharge stormwater from a point source to surface waters or to conveyance systems that discharge to surface waters of the state and

1) The stormwater is associated with an industrial activity identified in *Table 1: Sources Covered* on p. 3; or
2) The facility is notified in writing by the Director that coverage under this permit is required for its stormwater discharges (see Note 1 below).

Note 1:

1) Facility is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D). Facility discharges stormwater associated with an industrial activity that is not described in *Table 1: Sources Covered* on p. 3 below.
2) Facilities may apply for conditional exclusion from the requirement to obtain coverage under this permit if there is no exposure of industrial activities and materials to stormwater pursuant to 40 CFR §122.26(g); see Permit Coverage and Exclusion from Coverage on p. 5 below.
3) The following activities are not required to obtain coverage under this permit:
   (i) Construction activities; asphalt mix batch plants; concrete batch plants; and Standard Industrial Classification code 14, Mining and Quarrying of Nonmetallic Minerals, Except Fuels, and industrial stormwater discharges to the Columbia Slough Watershed or to conveyances leading to the Columbia Slough. These activities are required to obtain coverage under separate general permits; and
   (ii) Any source that has obtained an individual NPDES permit for the discharge, unless the source is otherwise eligible for coverage under this permit and DEQ has approved the source's application for coverage under it.
   (iii) Any source that discharges to a sanitary sewer system and the discharge is approved by the sanitary sewer operator.

Neil Mullane, Administrator
Water Quality Division

Issuance Date: Oct. 1, 2011
Effective Date: July 1, 2012

PERMITTED ACTIVITIES

Until this permit expires, is modified or revoked, the permit registrant is authorized to construct, install, modify, or operate stormwater treatment or control facilities, and to discharge stormwater and non-stormwater discharges specifically authorized by the permit to public waters in conformance with all the requirements, limitations, and conditions set forth in the following schedules:

		Page
Permit Coverage and Exclusion From Coverage		5
Schedule A -	Technology Based Limitations, Water Quality Based Limitations, Stormwater Pollution Control Plan, Benchmarks and Corrective Actions	10
Schedule B -	Monitoring and Reporting Requirements	19
Schedule C -	Compliance Schedules	N/A
Schedule D-	Special Conditions	25
Schedule E -	Sector Specific Requirements	28
Schedule F -	General Conditions	87

Unless specifically authorized by this permit, by regulation issued by EPA, by another NPDES permit, or by Oregon Administrative Rule, any other direct or indirect discharge to waters of the state is prohibited, including discharges to an underground injection control system.

Schedule F contains General Conditions that are included in all general permits issued by DEQ. Should conflicts arise between Schedule F and any other schedule of the permit, the requirements in Schedule F will not apply.

Table 1. Sources Covered

Types of Industrial Sources Required to Obtain Coverage Under this Permit
Facilities with the following primary Standard Industrial Classification (SIC) codes: 10 Metal Mining 12 Coal Mining 13 Oil and Gas Extraction 20 Food and Kindred Products 21 Tobacco Products 22 Textile Mill Products 23 Apparel and Other Finished Products Made From Fabrics and Similar Material 24 Lumber and Wood Products, Except Furniture and 2491 Wood Preserving. (Activities with SIC 2411 Logging that are defined in 40 CFR §122.27 as silvicultural point source discharges are covered by this permit.) 25 Furniture and Fixtures 26 Paper and Allied Products 27 Printing, Publishing and Allied Industries 28 Chemicals and Allied Products (excluding 2874 Phosphate Fertilizer Manufacturing) 29 Petroleum Refining and Related Industries 30 Rubber and Miscellaneous Plastics Products 31 Leather and Leather Products 32 Stone, Clay, Glass, and Concrete Products 33 Primary Metal Industries 34 Fabricated Metal Products, Except Machinery and Transportation Equipment 35 Industrial and Commercial Machinery and Computer Equipment 36 Electronic and Other Electrical Equipment and Components, Except Computer Equipment 37 Transportation Equipment 38 Measuring, Analyzing, and Controlling Instruments; Photographic, Medical and Optical Goods; Watches and Clocks 39 Miscellaneous Manufacturing Industries 4221 Farm Product Warehousing and Storage 4222 Refrigerated Warehousing and Storage 4225 General Warehousing and Storage 5015 Motor Vehicle Parts, Used 5093 Scrap and Waste Materials
Facilities with the following primary SIC codes that have vehicle maintenance shops (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, or airport deicing operations: 40 Railroad Transportation 41 Local and Suburban Transit and Interurban Highway Passenger Transportation 42 Motor Freight Transportation and Warehousing (excluding 4221 Farm Product Warehousing and Storage, 4222 Refrigerated Warehousing and Storage, and 4225 General Warehousing and Storage) 43 United States Postal Service 44 Water Transportation 45 Transportation by Air 5171 Petroleum Bulk Stations and Terminals, except as provided in Note 1 below.
Facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils, except as provided in the note below.
Steam Electric Power Generation including coal handling sites
Landfills, land application sites and open dumps
Hazardous Waste Treatment, Storage and Disposal Facilities.
Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, recycling, and reclamation of municipal or domestic sewage (including land dedicated to the disposal of sewage sludge that are located within the confines of the facility) with the design flow capacity of 1.0 mgd or more, or required to have a pretreatment program under 40 CFR §403.

Note 1: Exemption for facilities storing, transferring, formulating, or packaging bulk petroleum products or vegetable oils:

A discharge permit is not needed if discharges are only from:

1) Stormwater that contacts oil-filled electrical equipment in transformer substations that are equipped with properly functioning oil spill prevention measures such as containment areas or oil/water separators.
2) Stormwater that contacts petroleum product receiving or dispensing areas or product dispensing equipment from which product is dispensed to final users, whether or not the stormwater is treated by an oil/water separator.
3) Stormwater that collects in a secondary containment area at a petroleum product dispensing site, where the secondary containment area is associated with storage tanks from which product is dispensed only to final users, and the discharge from the containment area is treated by an oil/water separator.
4) Stormwater that collects in a secondary containment area at a bulk petroleum product storage site, where the total storage capacity at the site does not exceed 150,000 gallons, and the discharge from the containment area is treated by an oil/water separator. A site with multiple containment areas is considered a single site for determining total storage capacity.

PERMIT COVERAGE AND EXCLUSION FROM COVERAGE

1. **New Discharger to Impaired Waters** (see Schedule D.3, Definitions)
   a. A new discharger to an impaired water without a Total Maximum Daily Load (TMDL) for pollutant(s) must meet the following conditions to obtain coverage under this permit, or cease the discharge or obtain an individual permit:
      i. Prevent all exposure to stormwater of the pollutant(s) for which the waterbody is impaired and document in the Stormwater Pollution Control Plan (SWPCP) procedures taken to prevent exposure onsite;
      ii. Document in SWPCP that the pollutant(s) for which the waterbody is impaired is not present at the site, or
      iii. Provide data and other technical information that demonstrates that the discharge is not expected to cause or contribute to an exceedance of the water quality standard for which the waterbody is impaired at the point of discharge to the waterbody if the pollutant(s) for which the waterbody is impaired are likely to be present at the site and DEQ has not issued a TMDL for the pollutant(s).
   b. A new discharger to an impaired water with a TMDL for pollutant(s) must meet the following conditions to obtain coverage under the permit:
      i. DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL and will grant the owner or operator coverage under the permit, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges.
      ii. DEQ will inform the applicant if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary.
   c. Conditions 1.a and b above do not apply if the waterbody is impaired for:
      i. Biological communities and no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment; or
      ii. Temperature, hydrologic modifications, or impaired hydrology.

2. **New Application for Permit Coverage**
   a. The following facilities that are required to obtain coverage under this permit must:
      i. New facility – Submit to DEQ or Agent (see Schedule D.4 for description of Agent) at least 60 calendar days before the planned activity that requires permit coverage, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
         1. DEQ-approved application form;
         2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
         3. Applicable permit fees.
      ii. Existing facility with stormwater discharges associated with industrial activities identified in *Table 1: Sources Covered* on p. 3 and operating without coverage under any NPDES permit for those discharges – Immediately submit to DEQ or Agent, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
         1. DEQ-approved application form;
         2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
         3. Applicable permit fees.
      iii. Existing facility that is designated by the Director as needing a stormwater permit pursuant to 40 CFR §122.26(a)(9)(i)(D) or is conducting an industrial activity that is not described in *Table 1: Sources Covered* on p. 3 that is notified by the Director that coverage under this

permit is required (see Note 1 of the cover page of the permit) – Within 90 calendar days of being notified by DEQ that permit coverage is required, submit to DEQ or Agent a complete application that includes the following:
1. DEQ-approved application form;
2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
3. Applicable permit fees.

iv. Existing facility operating under permit coverage that intends to change industrial processes at the site to a new primary industrial sector – Submit to DEQ or Agent at least 60 calendar days before the planned change, unless a later date is approved by DEQ or Agent, a complete application that includes the following:
1. DEQ-approved application form;
2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
3. Applicable permit fees.

v. Existing facility whose stormwater discharges are authorized by an individual NPDES permit and seeks coverage under this permit – Submit to DEQ or Agent a complete application that includes the following:
1. DEQ-approved application form;
2. One paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
3. Applicable permit fees.

b. Registration
i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. DEQ will respond in writing to any public comments on the applicant's SWPCP.
ii. DEQ or Agent will notify the applicant in writing if registration is granted or denied.
iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030.

3. Renewal Application Requirements for Facilities that DID NOT Exceed Benchmark(s) Based on the 4th year Benchmark Evaluation of Data Collected by July 2011 pursuant to Schedule A.10 of 1200-Z permit that expires in June 2012.

a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2012 must submit to DEQ or Agent, by March 31, 2012, unless a later date is approved in writing by DEQ or Agent, a complete application that includes the following:
i. DEQ-approved renewal application form; and
ii. One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit. If an Agent is receiving the application materials, submit two copies of the SWPCP.

b. Registration
i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period.
ii. DEQ or Agent will notify the applicant in writing if registration is approved or denied.
iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit in accordance with OAR 340-045-0030. If the applicant applies for an individual permit in accordance with OAR 340-045-0030, the applicant's coverage under this permit will continue until DEQ grants or denies the applicant's individual permit application.

4. **Renewal Application Requirements for Facilities that Exceed Benchmark(s) based on the 4th year Benchmark Evaluation of Data Collected by July 2011 pursuant to Schedule A.10 of 1200-Z permit that expires in June 2012.**
   a. To ensure uninterrupted permit coverage for industrial stormwater discharges, an owner or operator of a facility registered under the 1200-Z permit that expires on June 30, 2012 must submit to DEQ or Agent, by March 31, 2012, unless a later date is approved in writing by DEQ or Agent, a complete application that includes the following:
      i. DEQ-approved renewal application form; and
      ii. One paper copy and one electronic PDF of an updated SWPCP that meets the requirements of the new permit. If an Agent is receiving the application materials, submit two copies of the SWPCP.
         1. The owner or operator must include additional treatment measures in the SWPCP, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the treatment measures and the projected reduction of pollutant concentration(s). A licensed professional engineer (PE) or certified engineering geologist (CEG) shall design and stamp the portion of the SWPCP that addresses the treatment measures.
         2. The owner or operator may request a waiver including the additional treatment measures in the SWPCP if:
            (a) The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The updated SWPCP must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
            (b) Owner or operator implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The updated SWPCP must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.
   b. Registration
      i. Prior to granting the applicant registration under this permit, DEQ will provide a 30-calendar day public review period. DEQ will respond in writing to any public comments on the applicant's updated SWPCP.
      ii. DEQ or Agent will notify the applicant in writing if registration is approved or denied.
      iii. If registration is denied or the applicant does not wish to be regulated by this permit, the applicant may apply for an individual permit. If the applicant applies for an individual permit in accordance with OAR 340-045-0030, the applicant's coverage under this permit will continue until DEQ grants or denies the applicant's individual permit application.

5. **Name Change or Transfer of Permit Coverage**
   a. For a name change or transfer of permit coverage between legal entities, the owner or operator must submit to DEQ or Agent within 30 calendar days of the name change or planned transfer, a complete application that includes the following:
      i. DEQ-approved Name Change or Permit Transfer application form;

ii. An updated SWPCP, if revisions are necessary to address changed conditions. Submit one paper copy and one electronic PDF of the SWPCP. If an Agent is receiving the application materials, submit two copies of the SWPCP; and
iii. Applicable permit fees.

b. DEQ or Agent will notify the applicant in writing if the transfer is approved or denied. DEQ will transfer coverage under the permit after DEQ approves the application.
c. For a name change or transfer of permit coverage between legal entities that intend to change industrial processes at the site to a new primary industrial sector, the owner or operator must submit a new application for coverage under this permit as required in condition 2.a.iv above.

6. "No Exposure" Conditional Exclusion from Permit Coverage

a. An owner or operator that applies under 40 CFR §122.26(g)(2) for a "no exposure" conditional exclusion from coverage under this permit must:
   i. Protect industrial materials and activities from exposure to rain, snow, snow melt, and runoff by using a storm resistant shelter, except as provided in the Environmental Protection Agency (EPA) Guidance Manual for Conditional Exclusion from Stormwater Permitting Based on "No Exposure" of Industrial Activities to Stormwater (EPA 833-B-00-001, June 2000). Storm resistant shelters with unsealed zinc or copper roofing materials are not eligible for the "no exposure" conditional exclusion.
   ii. Ensure that contaminated soil or materials from previous operations is not exposed.
   iii. Complete and sign a certification, on a form approved by DEQ, that there is no stormwater exposure to industrial materials and activities from the entire facility, except as provided in 40 CFR §122.26(g)(2). The EPA Guidance Manual (EPA 833-B-00-001) may be used to determine whether the no exposure criteria are met.
   iv. Submit the signed certification to DEQ or Agent once every five years. If DEQ or Agent does not comment on the "no exposure" certification within 30 days, the "no exposure" conditional exclusion is deemed approved. DEQ or Agent may notify the applicant in writing or by email of its approval. The owner or operator must keep a copy of the certification on site and any notification of approval on site.
   v. Allow DEQ or Agent to inspect the facility to determine compliance with the "no exposure" conditions, and allow DEQ or Agent to make any "no exposure" inspection reports available to the public upon request.
   vi. Submit a copy of the "no exposure" certification to the municipal separate storm sewer system (MS4) operator (i.e., local municipality, district), upon their request, if facility discharges through an MS4; and allow inspection and public reporting by the MS4 operator.
b. Limitations for obtaining or maintaining the exclusion:
   i. This exclusion is available on a facility-wide basis only, not for individual outfalls.
   ii. If industrial materials or activities become exposed to rain, snow, snow melt, or runoff, the conditions for this exclusion no longer apply. In such cases, the discharge becomes subject to enforcement for un-permitted discharge. Any conditionally exempt discharger who anticipates changes in circumstances must apply for and obtain permit coverage before the change of circumstances.
   iii. DEQ or Agent retains the authority to make a determination that the "no exposure" conditional exclusion no longer applies and require the owner or operator to obtain permit coverage.

7. Authorized Non-Stormwater Discharges

a. Subject to the terms and conditions of the permit, the following non-stormwater discharges are authorized:
   i. Discharges from fire-fighting activities.
   ii. Fire hydrant flushings.
   iii. Potable water, including water line flushings.
   iv. Uncontaminated condensate from air conditioners, coolers and other compressors, and from outside storage of refrigerated gases and liquids.
   v. Irrigation drainage.
   vi. Landscape watering, provided that all pesticides, herbicides, and fertilizer have been applied in accordance with manufacturer's instructions.
   vii. Pavement wash waters where no detergents or hot water are used, no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed), and surfaces are swept before washing.
   viii. Vehicle washing that does not use detergents or hot water unless the 1700-A NPDES permit is required for the discharge.
   ix. Routine external building washdown that does not use detergents or hot water.
   x. Uncontaminated ground water or spring water.
   xi. Foundation or footing drains where flows are not contaminated with process materials.
   xii. Incidental windblown mist from cooling towers that collects on rooftops or adjacent portions of the facility, but not intentional discharges from the cooling tower (e.g., "piped" cooling tower blowdown or drains).

b. Piping and drainage systems for interior floor drains and process wastewater discharge points must be separated from the storm drainage system to prevent inadvertent discharge of pollutants to waters of the state, unless the process wastewater discharge is authorized by another NPDES permit that allows commingled outfalls. Discharge from floor drains to the stormwater drainage system is a violation of this permit.

c. Any other wastewater discharge or disposal, including stormwater mixed with wastewater, must be permitted in a separate permit, unless the wastewater is reused or recycled without discharge or disposal, or discharged to the sanitary sewer with approval from the sanitary sewer system operator.

8. Limitations on Coverage

a. Pursuant to OAR 340-045-0033(10), DEQ may deny permit coverage to an applicant or revoke a permit registrant's coverage under the permit and require the owner or operator to apply for and obtain an individual permit.

b. Coverage under this permit is not available under the following circumstances:
   i. The discharges are regulated by another NPDES permit, except a Municipal Separate Storm Sewer System (MS4) permit.
   ii. The discharges were included in a permit that has been or is in the process of being denied, terminated or revoked unless the source is otherwise eligible for coverage under this permit and DEQ approves the source's application to register under it and simultaneously revokes coverage under the other permit.
   iii. New discharger to waters designated as Outstanding Resource Waters for antidegradation purposes under 40 CFR 131.13(a)(3) and OAR 340-041-0004.

c. Any operator not wishing to be covered or limited by this general permit may make application for an individual NPDES permit in accordance with the procedures in OAR 340-045-0030.

SCHEDULE A

TECHNOLOGY BASED EFFLUENT LIMITATIONS

1. **Narrative Technology-Based Effluent Limits**

The permit registrant must meet the following narrative technology based effluent limits and any additional sector specific limits in Schedule E of the permit.

a. Minimize exposure - Minimize exposure of manufacturing, processing, material storage areas, including loading and unloading, disposal, cleaning, maintenance and fixed fueling areas, to rain, snow, snowmelt and runoff. To the extent technologically available and economically practicable and achievable in light of best industry practice, the permit registrant must do the following:
   i. Locate materials and activities indoors or protect them with storm resistant covers if stormwater from affected areas discharges to surface waters. Acceptable covers include, but are not limited to, permanent structures such as roofs or buildings and temporary covers such as tarps;
   ii. Use grading, berming, or curbing to divert stormwater away from these areas and prevent stormwater contamination;
   iii. Store all hazardous substances (see Schedule D.3, Definitions) within berms or other secondary containment devices to prevent leaks and spills from contaminating stormwater. If the use of berms or secondary containment devices is not possible, then store hazardous substances in areas that do not drain to the storm sewer system;
   iv. Locate materials, equipment and activities in containment and diversion systems, including the storage of leaking or leak-prone vehicles and/or equipment awaiting maintenance, to prevent leaks and spills from contaminating stormwater;
   v. Use drip pans or absorbents under or around leaking or leak-prone vehicles/equipment or store indoors. Drain fluids from equipment and vehicles prior to on-site storage or disposal;
   vi. Perform all cleaning operations indoors, under cover or in bermed areas that prevent runoff and run-on and also captures overspray;
   vii. Clean up spills or leaks promptly using absorbents or other effective methods to prevent discharge of pollutants and use spill/overflow protection equipment, and
   viii. Ensure that all washwater drains to a proper collection system such as a closed-loop system or sanitary sewer and not discharged to the stormwater drainage system unless the washwater is an authorized non-stormwater discharge listed in condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit.

b. Oil and Grease - Employ oil/water separators, booms, skimmers or other methods to eliminate or minimize oil and grease contamination of stormwater discharges.

c. Waste Chemicals and Material Disposal - Recycle or properly dispose of wastes to eliminate or minimize exposure of pollutants to stormwater. Cover all waste contained in bins or dumpsters where there is a potential for drainage of stormwater through the waste to prevent exposure of stormwater to these pollutants. Acceptable covers include, but are not limited to, storage of bins or dumpsters under roofed areas and use of lids or temporary covers such as tarps.

d. Erosion and Sediment Control - Stabilize exposed areas and contain runoff using structural and nonstructural controls to minimize erosion of soil at the site and sedimentation. Employ erosion control methods such as vegetating exposed areas, graveling or paving to minimize erosion of soil at the site. Employ sediment control methods such as detention facilities, vegetated filter strips, bioswales, flow velocity dissipation devices or other permanent erosion or sediment controls to minimize sediment loads in stormwater discharges. For activities that involve land disturbance, the permit registrant must contact the local municipality to determine if there are other applicable requirements related to stormwater control.

e. Debris Control - Employ screens, booms, settling ponds, or other methods to eliminate or minimize waste, garbage and floatable debris in stormwater discharges and ensure that this debris is not discharged to receiving waters.

f. Dust Generation and Vehicle Tracking of Industrial Materials - Minimize generation of dust and off-site tracking of raw, final or waste materials.

g. Housekeeping - Routinely clean all exposed areas that may contribute pollutants to stormwater using such measures as sweeping at regular intervals, litter pick-up, keeping materials orderly and labeled, prompt clean up of spills and leaks, proper maintenance of vehicles and stowing materials in appropriate containers.

h. Spill Prevention and Response Procedure - Minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans that include methods for spill prevention and clean-up and notification procedures. At a minimum, the permit registrant must implement the following:

   i. Procedures for plainly labeling containers (e.g., "Used Oil," "Spent Solvents," "Fertilizers and Pesticides," etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;

   ii. Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;

   iii. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills and other releases. Make the methods and procedures available to appropriate personnel. Employees who may cause, detect, or respond to a spill or leak must be trained in these procedures. Have the necessary clean-up material on-site and readily available, and

   iv. Procedures for notification of appropriate facility personnel, emergency agencies, and regulatory agencies. Contact information must be in locations that are readily accessible and available.

i. Preventative Maintenance - Regularly inspect, clean, maintain, and repair all industrial equipment and systems and materials handling and storage areas that are exposed to stormwater to avoid situations that may result in leaks, spills, and other releases of pollutants discharged to receiving waters. Clean, maintain and repair all control measures, including stormwater structures, catch basins, and treatment facilities to ensure effective operation and in a manner that prevents the discharge of pollution.

j. Employee Education - Develop and maintain an employee orientation and education program to inform personnel on the components and goals of the SWPCP. Train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel). Training must cover both the specific control measures used to achieve the narrative technology based effluent limits such as spill response procedures and good housekeeping practices, and the monitoring, inspection, reporting and documentation requirements in the permit. The education and training must occur within 30 calendar days of hiring an employee who works in areas where stormwater is exposed to industrial activities or conducts duties related to the implementation of the SWPCP, and annually thereafter.

k. Non-Stormwater Discharges - Eliminate any non-stormwater discharges not authorized by a NPDES permit (see condition 7 of the Permit Coverage and Exclusion from Coverage section of the permit for a list of authorized non-stormwater discharges).

2. **Numeric Technology Based Effluent Limits based on Stormwater Specific Effluent Limitations Guidelines** - The permit registrant with the following activities must comply with the applicable limitations:

Table 2. Numeric Effluent Limits based on Effluent Limit Guidelines

Regulated Activity	40 CFR Part/Subpart	Effluent Limit
Runoff from asphalt emulsion facilities	Part 443, Subpart A	See Schedule E.D.1
Runoff from material storage piles at cement manufacturing facilities	Part 411, Subpart C	See Schedule E.E.3
Runoff from hazardous waste landfills	Part 445, Subpart A	See Part E.K.3
Runoff from non-hazardous waste landfills	Part 445, Subpart B	See Part E.L.7
Runoff from coal storage piles at steam electric generating facilities	Part 423	See Schedule E.O.5

3. **Control Measures for Technology Based Effluent Limits**
   a. The permit registrant must select, design, install, implement and maintain control measures to meet the narrative and numeric technology based effluent limits in Schedule A.1, A.2 and Schedule E of the permit and described these measures in the SWPCP.
   b. For technology based effluent limits that require permit registrants to minimize pollutants in the discharge, permit registrants must reduce or eliminate pollutants to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In selecting the appropriate control measures to meet these limits, permit registrant may consider the age of the equipment and facilities involved, the processes employed, the engineering aspects of the application of various types of control techniques, the pollutant reductions likely to be achieved, any adverse environmental or energy effects of potential measures, and the costs of achieving pollutant reductions.
   c. The permit registrant must select, design, install, implement and maintain the control measures in accordance with good engineering practices and manufacturer's specifications. If the permit registrant deviates from manufacturer's specifications provide justification for such deviation in the SWPCP.
   d. DEQ or Agent may require the permit registrant to take corrective actions to meet the narrative and numeric technology based effluent limits in Schedule A.1, A.2 and Schedule E of the permit.
      i. If the permit registrant is failing to implement the control measures in the SWPCP, they must take corrective actions and implement the measures before the next storm event if practicable, unless otherwise approved by DEQ or Agent.
      ii. If modifications to the control measures are necessary to meet the technology limits in the permit, permit registrant must revise SWPCP within 30 days, unless otherwise approved by DEQ or Agent. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.

WATER QUALITY BASED EFFLUENT LIMITATIONS

4. Water Quality Standards

a. The permit registrant must not cause or contribute to a violation of instream water quality standards as established in OAR 340-041.

b. If at any time the permit registrant becomes aware, or DEQ or Agent determines, that the discharge causes or contributes to an exceedance of water quality standards, permit registrant must take the following corrective actions:

i. Within 24 hours of discovering the violation:
   1. Investigate the conditions that triggered the violation and
   2. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit.

ii. Within 30 days of the discovering the violation, submit a Water Quality Standards Corrective Action report to DEQ or Agent that documents the following:
   1. The results of the investigation, including the date the violation discovered and a brief description of the conditions that triggered the violation;
   2. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed, and
   3. Document whether SWPCP revisions are necessary. If permit registrant determines that SWPCP revisions are necessary based on the corrective action review, submit a revised SWPCP to DEQ or Agent with the report.

iii. Permit registrant must implement the corrective actions before the next storm event if practicable or no later than 60 days from discovering the violation, unless a later date is approved by DEQ or Agent.

c. DEQ may impose additional water quality-based limitations on a site-specific basis, or require the permit registrant to obtain coverage under an individual permit, if information in the application, required reports, or from other sources indicates that the discharge is causing or contributing to a violation of water quality standards, either in the receiving waterbody or a downstream waterbody. If DEQ determines that additional site specific requirements are necessary, DEQ will require the permit registrant to revise the SWPCP. DEQ will hold a 30-calendar day public review period on the revised SWPCP.

5. Discharges to Impaired Waters.

a. Existing Discharger to an Impaired Water with a TMDL for Pollutant(s) - DEQ presumes that compliance with the terms and conditions of the permit complies with the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges. Permit registrant must meet Schedule A.4 and B.1.b of the permit. DEQ will inform the permit registrant if any additional limits or controls are necessary to be consistent with the assumptions of the wasteload allocation(s) in the TMDL(s), or if coverage under an individual permit is necessary. If DEQ determines that additional site specific requirements are necessary, DEQ will require the permit registrant revise the SWPCP to incorporate the requirements. DEQ will hold a 30-calendar day public review period on the revised SWPCP.

b. Existing Discharger to an Impaired Water without a TMDL for Pollutant(s) - Permit registrant that discharges to an impaired water on the 303(d) list in effect at the time of permit assignment without a TMDL for the pollutant(s) must meet Schedule A.4 and B.1.b of the permit.

c. New Discharger to an Impaired Water - New discharges to impaired waters authorized to discharge under this permit must implement and maintain any control measures or conditions on the site that enabled the permit registrant to become eligible for permit coverage and modify such measures or conditions as necessary pursuant to corrective action requirements in the permit. Permit registrant must meet Schedule A.4 and B.1.b of the permit.

STORMWATER POLLUTION CONTROL PLAN

6. Preparation and Implementation of SWPCP

a. The SWPCP must be prepared by a person knowledgeable in stormwater management and familiar with the facility.
b. The SWPCP must be signed and certified in accordance with 40 CFR §122.22.
c. Permit registrants must implement the SWPCP and any revisions to the plan. Failure to implement any of the control measures or practices described in the SWPCP is a violation of the permit.
d. The SWPCP must be kept current and updated as necessary to reflect any changes to the site. Update the SWPCP within 30 days of making the changes.

7. Required Elements

a. Title Page - The title page of the SWPCP must contain the following information:
   i. Name of the site.
   ii. Name of the site operator or owner.
   iii. The name of the person(s) preparing the SWPCP.
   iv. Site or file number as indicated on the permit.
   v. Contact person's name and telephone number.
   vi. Physical address, including county, and mailing address if different.
b. Site Description - The SWPCP must contain the following information, including any information required in Schedule E of the permit:
   i. A general location map showing the location of the site in relation to surrounding properties, transportation routes, surface waters and other relevant features.
   ii. A site map including the following:
      1. drainage patterns;
      2. drainage and discharge structures (piping, ditches, etc.);
      3. outline of the drainage area for each stormwater outfall;
      4. paved areas and buildings within each drainage area;
      5. areas used for outdoor manufacturing, treatment, storage, or disposal of significant materials;
      6. existing structural control measures for minimizing pollutants in stormwater runoff;
      7. structural features that reduce flow or minimize impervious areas;
      8. material handling and access areas;
      9. hazardous waste treatment, storage and disposal facilities;
      10. location of wells including waste injection wells, seepage pits, drywells, etc.;
      11. location of springs, wetlands and other surface waterbodies both on site and adjacent to the site;
      12. location of groundwater wells;
      13. location and description of authorized non-stormwater discharges;
      14. location of sampling points; and
      15. location of spill prevention and cleanup materials.
   iii. A description of industrial activities conducted at the site or significant materials stored, used, treated or disposed of in a manner that allows exposure to stormwater. Include in the description the methods of storage, usage, treatment or disposal.
   iv. For each area of the site where a reasonable potential exists for contributing pollutants to stormwater runoff, a description of the potential pollutant sources that could be present in stormwater discharges.
   v. A description of control measures installed and implemented to meet the technology and water quality based requirements in Schedule A.1 –A.5 and any applicable sector specific requirements in Schedule E of the permit. Include in the description how the stormwater

control measures address potential pollutant sources from industrial activities and significant materials on-site, spills and leaks and authorized non-stormwater discharges.

vi. An estimate of the amount of impervious surface area (including paved areas and building roofs) and the total area drained by each stormwater outfall to be reported in area units.

vii. The name(s) of the receiving water(s) for stormwater drainage. If drainage is to a municipal storm sewer system, the name(s) of the ultimate receiving waters and the name of the municipality.

viii. The identification of the discharge outfall(s) and the point(s) where stormwater monitoring will occur as required by Schedule B.2.c. If multiple discharge outfalls exist but will not all be monitored, include a description of the outfalls and data or analysis supporting that the outfalls are representative as described in Schedule B.2.c.ii of the permit.

c. Procedures and Schedules -The SWPCP must contain the following information to meet the technology based effluent limits in Schedule A.1 of the permit

i. Spill Prevention and Response Procedure - Procedures for preventing and responding to spills and clean-up and notification procedures. Spills prevention plans required by other regulations may be substituted for this provision provided that stormwater management concerns are adequately addressed and the plan is kept onsite and included with the SWPCP. The location of clean-up materials must either be shown on the site drawings or indicated in the text of the SWPCP.

ii. Preventative Maintenance - Preventative maintenance procedures for conducting inspections, maintenance and repairs to prevent leaks, spills, and other releases and a schedule for regular pickup and disposal of waste materials, and inspections for leaks and conditions of drums, tanks and containers.

iii. Employee Education – Schedule for employee training.

d. Monitoring - If an existing facility is renewing their coverage under this permit and included the benchmarks in the SWPCP used for the prior permit, update the SWPCP to reflect the new benchmarks in Schedule A.9 and any applicable sector specific benchmarks in Schedule E of the permit.

8. SWPCP Revisions

a. Permit registrants must prepare SWPCP revisions in compliance with condition A.6 and clearly identify changes to activities on site and control measures.

b. Submission of all SWPCP revisions is not required. SWPCP revisions must be submitted only if they are made for any of the following reasons:

i. Change in site contact(s);

ii. In response to a corrective action or inspection;

iii. Changes to the site or control measures that may significantly change the nature of pollutants present in stormwater discharge; or significantly increase the pollutant(s) levels, discharge frequency, discharge volume or flow rate, and

iv. Changes to the monitoring locations or outfalls.

c. If submission of SWPCP revisions is required, permit registrant must submit the revised pages of the SWPCP or site map to DEQ or Agent within 30 days of making the revisions.

d. Review of the revisions by DEQ or Agent prior to implementation is not required, except revision to location of monitoring locations. If the permit registrant does not receive a response to the revisions from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.

e. DEQ or Agent may require the permit registrant revise the SWPCP at any time. The permit registrant must submit the revisions within 30 days, unless a later date is approved by DEQ or Agent.

f. SWPCP revisions are not subject to public notice and comment unless they are made in response to the water quality based effluent limit requirements in Schedule A.4 and A.5 of the permit.

STORMWATER DISCHARGE BENCHMARKS

9. Benchmarks

Benchmarks and reference concentrations for impairment pollutants are guideline concentrations, not limitations; a benchmark or reference concentration exceedance, therefore, is not a permit violation. They are designed to assist the permit registrant in determining whether its site controls are effectively reducing pollutant concentrations in stormwater discharged from the site. For facilities that are subject to federal limitations in Schedule A.2 of the permit, benchmarks apply to only those pollutants that are not limited by the federal regulations.

The following statewide benchmarks apply to each point source discharge of stormwater associated with industrial activity:

Table 3. Statewide Benchmarks

Parameter	Benchmark
Total Copper	0.02 mg/l
Total Lead	0.04 mg/L
Total Zinc	0.12 mg/L
pH*	5.5 – 9.0 SU
Total Suspended Solids*	100 mg/l
Total Oil & Grease*	10 mg/l
E. coli**	406 counts/100 ml

* See Schedule A.2 for list of facilities subject to federal limitations.

** The benchmark for E. coli applies only to active landfills and sewage treatment plants.

See Schedule E of the permit for the sector specific benchmarks that apply to certain industrial sectors/subsectors.

CORRECTIVE ACTIONS FOR IMPAIRMENT POLLUTANTS AND BENCHMARKS EXCEEDANCES

10. Tier I Corrective Action Response to Exceedances of Impairment Pollutants and Benchmarks:

a. If stormwater sampling results exceed any of the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant must within 30 calendar days of obtaining the monitoring results:
   i. Investigate the cause of the elevated pollutant levels.
   ii. Review the SWPCP and the selection, design, installation and implementation of control measures to ensure compliance with the permit. If permit registrant determines that SWPCP revisions are necessary based on corrective action review, submit the revised pages of the SWPCP to DEQ or Agent, including a schedule for implementing the control measures.
   iii. Summarize the following information in a Tier I report that is retained on site and submitted to DEQ or Agent upon request:
      1. The results of the investigation.

2. Corrective actions taken or to be taken, including date corrective action completed or expected to be completed. Where the permit registrant determines that corrective action is not necessary, provide the basis for this determination.
3. Document whether SWPCP revisions are necessary.

b. Implement the corrective actions before the next storm event if possible or as soon as practicable.
c. Permit registrants are exempt from the Tier I corrective action requirements for exceedances of benchmark parameters addressed by the Tier II corrective actions requirements in Schedule A.11 and A.12 below.

11. Tier II Corrective Actions for Facilities that exceeded Benchmarks based on 4th year Benchmark Compliance Evaluation required by 1200-Z permit that expires June 2012 (see Condition 4 of Permit Coverage and Exclusion section)

a. Permit registrants are exempt from the Tier II corrective action requirements in condition A.12 of the permit.
b. No later than two years after obtaining permit coverage, the permit registrant must install and implement the stormwater treatment measures.
c. After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.

12. Tier II Corrective Action Response based on 2nd year Geometric Mean Benchmark Evaluation:

a. Permit registrants must evaluate the sampling results collected during the 2nd year of permit coverage and determine if the geometric mean of the samples collected at each monitored outfall exceeds any statewide benchmark in Schedule A.9 of the permit. The permit registrant must report this information with Discharge Monitoring Report (DMR) form for that monitoring year.
   i. For the pH benchmark Tier II is triggered if more than three of eight samples are outside of the pH benchmark range.
   ii. Permit registrants are not required to conduct this evaluation for the benchmark parameter(s) where DEQ has granted a monitoring waiver in Schedule B.4 of the permit.
b. If the geometric mean of the sampling results for any outfall monitored exceeds any statewide benchmark (or if more than three of eight samples for any outfall are outside of the pH benchmark range), permit registrant must:
   i. Revised SWPCP
      1. Revise the SWPCP to include additional stormwater treatment measures, which may include a combination of source control and treatment measures, with the goal of achieving the benchmark(s) in Schedule A.9 of the permit in future discharges. Include in the SWPCP the rationale for the selection of the measures, the projected reduction of pollutant concentration(s) and the schedule for implementing these measures.
      2. Have a licensed professional engineer (PE) or certified engineering geologist (CEG) design and stamp the portion of the SWPCP that addresses the stormwater treatment measures.
      3. Submit the revised SWCP to DEQ or Agent by December 31st of the 3rd year of permit coverage. If the permit registrant does not receive a response from DEQ or Agent within 30 days of receipt, the proposed revisions are deemed accepted.
   ii. Tier II Deadline - Implement the treatment measures by June 30th of the 4th year of permit coverage.

iii. After the stormwater treatment measures are implemented, if sampling results continue to exceed the same benchmark parameter(s) that triggered the Tier II corrective action requirements, permit registrant must within 30 days of obtaining the sample results, evaluate whether the treatment measures were properly installed, maintained and implemented and whether modifications to these measures are necessary. Summarize these findings in a Tier II Benchmark Exceedance report that is retained on site and submitted to DEQ or Agent annually with the Discharge Monitoring Report form.

c. Tier II Waiver - Permit registrants may request a waiver from the requirements in Schedule A.12.b above if:
   i. The benchmark exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site (see Schedule D.3, Definitions). The Tier II waiver report must include the investigation and analysis used to demonstrate that the exceedances are due to natural background conditions and include any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
   ii. Permit registrant implements or has implemented volume reduction measures, such as low impact development practices, that have or will result in reductions of the mass load of pollutants in the discharge below the mass equivalent of the benchmarks in Schedule A.9 of the permit. The Tier II Waiver report must include data and analysis to support this determination, including the description of the measure(s), date(s) implemented or expected to be implemented and the mass load analysis.
   iii. Permit registrant must submit a Tier II Waiver report to DEQ or Agent by December 31st of the 3rd year of permit coverage. DEQ or Agent will grant or deny the waiver request within 60 days of its receipt.

13. Permit Compliance

a. Any noncompliance with any of the requirements of this permit constitutes a violation of the Clean Water Act. Failure to take any required corrective actions in Schedule A.10 through A.12 of the permit constitute an independent, additional violation of this permit and the Clean Water Act. Any actions and time periods specified for remedying noncompliance do not absolve parties of the initial underlying violations.

b. Where corrective action is triggered by an event that does not itself constitute a violation, such as a benchmark exceedance, there is no permit violation for the corrective actions provided that the permit registrant takes the corrective action within the deadlines identified in the permit.

c. A new permit registrant with a new facility (that begins operation after July 1, 2012) or an existing facility (that was in operation before July 1, 2012 without a stormwater discharge permit) must implement stormwater control measures to meet the technology and water quality based requirements in Schedule A.1 – A.5 and any applicable sector specific requirements in Schedule E of the permit within 90 days of receiving permit coverage. Control measures that require capital improvements must be completed in accordance with the schedule set forth in the SWPCP, but must be completed within two years of receiving permit coverage.

SCHEDULE B
MONITORING REQUIREMENTS

1. Pollutant Parameters

a. Benchmarks - Permit registrants must monitor for the benchmark pollutants identified in Schedule A.9 of the permit. Permit registrants must also monitor for benchmarks specified for industrial sector(s), both the primary industrial activity and any co-located industrial activities, applicable to the discharge in Schedule E of the permit.

b. Impairment Pollutants

i. Permit registrants that discharge to an impaired water without a TMDL for pollutant(s), must monitor for impairment pollutants for which a standard analytical method exists (see 40 CFR Part 136). Permit registrants that discharge to an impaired water with a TMDL are not required to monitor for impairment pollutant addressed by the TMDL, unless the TMDL establishes wasteload allocation(s) and additional requirements for industrial stormwater discharges.

ii. Before granting coverage under the permit, DEQ will identify in the permit assignment letter the impairment pollutants that the permit registrants is required to monitor and reference concentrations for these pollutants. The reference concentrations will be based on the acute aquatic life criteria, if criteria are approved for the pollutant. If there is not an acute criteria for the pollutant, DEQ will use the chronic criteria. If there is not a chronic criteria for the pollutant, DEQ will use the human health criteria.

1. If the pollutant for which the waterbody is impaired is suspended solids, turbidity or sediment/sedimentation, permit registrants must monitor for Total Suspended Solids (TSS).
2. If the pollutant for which the waterbody is impaired is expressed in the form of an indicator or surrogate pollutant, permit registrants must monitor for that indicator or surrogate pollutant.
3. No monitoring is required when a waterbody's impairment is due to one of the following:
   (a) Biological communities are impaired but no pollutant, including indicator or surrogate pollutants, is specified as causing the impairment.
   (b) When a waterbody's impairment is related to hydrologic modifications, impaired hydrology, or temperature.

c. Numeric Effluent limits pursuant to Federal Effluent Limit Guidelines - Permit registrants subject to effluent limit guidelines must monitor for the parameters in Schedule A.2 of the permit at each outfall containing the discharges from activities identified in the guidelines.

d. Additional pollutants - There are no benchmarks, reference concentrations or numeric effluent limits for these pollutants. The purpose of this monitoring is to determine to what extent the pollutants are present in industrial stormwater discharges.

i. Permit registrants must monitor for cadmium, nickel, chromium.

ii. Permit registrants with the Industrial Sector M (Auto Salvage Facilities, SIC code 5015) as a primary industrial activity and any co-located industrial activities must sample for mercury.

iii. Permit registrants with the Sector N (Scrap Recycling Facilities, SIC code 5093), as a primary industrial activity and any co-located industrial must sample for mercury and PCBs.

2. Sampling Procedures

a. Grab Sampling

i. For each outfall monitored, collect a single grab sample of stormwater discharge or a series of composite samples. Grab composite or time or flow weighted composite samples may be used as an alternative, except when monitoring for pH, oil and grease and E. coli. Samples must be collected from same storm event.

ii. Permit registrants may use a single grab sample to satisfy multiple pollutant parameter monitoring requirements (e.g., required to monitor for zinc as benchmark and impairment pollutant).

b. Representative Sample - Samples must be representative of the discharge. Unless approved in writing by DEQ or Agent, all samples must be taken at monitoring points specified in the SWPCP before the stormwater joins or is diluted by stormwater from a different drainage area of the facility or areas outside the facility; wastewater, or any other wastestream, body of water or substance unless:
   i. Otherwise approved in writing by DEQ or Agent; or
   ii. On-site stormwater flows are combined to utilize a common treatment facility (for example, filter or settling pond). In this case, monitor the discharge from the treatment facility.

c. Multiple Point Source Discharges - Each stormwater outfall must be monitored unless:
   i. Outfall serves an area with no exposure of stormwater to industrial activities; or
   ii. Outfall has effluent that is substantially similar to the effluent(s) of a monitored outfall and the same BMPs are implemented and maintained at the similar outfalls or drainage areas that lead to the outfalls. Substantially similar effluent(s) are discharges from drainage areas serving comparable activities where the discharges are expected to be similar in composition. The determination of substantial similarity or effluent(s) must be based on past monitoring or an analysis of industrial activities and site characteristics. The data or analysis supporting that the outfalls are representative must be included in the SWPCP. This provision does not apply to outfall(s) covered by a numeric effluent limit.

d. Timing - Monitor the discharge during the first 12 hours of the discharge event, which is a measureable storm event resulting in an actual discharge from a site. If it is not practicable to collect the sample within this period, collect the sample as soon as practicable and provide documentation with the Discharge Monitoring Report form why it was not practicable to take samples within the period. Permit registrant is not required to sample outside of regular business hours or during unsafe conditions. Regular business hours are from 8 am to 5 pm on week days, unless the permit registrant specifies different hours in the SWPCP.

e. Monitoring Frequency - Permit registrants must monitor their stormwater discharge according to the frequency described in Table 4 below
   i. Monitoring year is from July 1st to June 30th. The stormwater samples must be collected at least 14 days apart.
   ii. Permit registrant may collect more samples than the minimum frequency described below, but must report this additional data in the Discharge Monitoring Report form. These additional samples must be included to establish a monitoring waiver in Schedule B.4 or to conduct the geometric mean evaluation in Schedule A.12 of the permit.
   iii. Exceedance of Numeric Effluent Limit in Schedule A.2 of the permit - Conduct follow-up monitoring of any pollutant that exceeds the numeric effluent limit(s) within 30 days (or during the next measurable storm event should none occur within 30 days) of receiving the monitoring results. If the follow-up monitoring exceeds the numeric effluent limit, the permit registrant must monitor the discharge four times per year until compliance with the numeric effluent limit.

Table 4: Monitoring Frequency

Pollutant Category	Minimum Frequency	Monitoring Year
Benchmarks in Schedule A.9, and any applicable sector specific benchmarks in Schedule E	Four times per Year Two samples on or before Dec. 31 and two samples on or after Jan. 1.	All Five Years of Permit Coverage, unless Waiver Applies
Impairment Pollutants, if applicable	Two times per Year One sample before Dec. 31 and One sample after Jan. 1.	All Five Years of Permit Coverage, unless Waiver Applies
Numeric Effluent Limits Guidelines, if applicable	One time per Year, unless exceedance occurs	All Five Years of Permit Coverage
Pollutant Category	**Minimum Frequency**	**Monitoring Year**
Additional Pollutants:		
Mercury and PCBs for facilities with SIC 5093	Four times per Year Two samples before Dec. 31 and two samples after Jan.1.	First Year of Permit Coverage
Mercury for facilities with SIC 5015	Four times per Year Two samples before Dec. 31 and two samples after Jan. 1.	First Year of Permit Coverage
Cadmium, Chromium and Nickel	Four times per Year Two samples before Dec. 31 and two samples after Jan. 1.	First Two years of Permit Coverage

3. Monitoring Variance

a. Permit registrants may request a monitoring variance for missed samples due to no discharge from the site if one of the following criteria is met:
   i. State or federal authorities declared the year a drought year.
   ii. Demonstrate that rainfall in the area where the permit registrant's facility is located was 20% or more below the three-year average rainfall for that area.
   iii. Demonstrate to DEQ or Agent's satisfaction that discharge did not occur due to use of on-site retention system or other stormwater treatment system, or infrequent storm events of sufficient magnitude to produce run-off during normal business hours and safe conditions.

b. For each missed sample, report in the Discharge Monitoring Report form that no discharge occurred and include supporting data and analysis demonstrating why the monitoring did not occur.

4. Monitoring Waiver

a. Benchmark and Impairment Pollutant Monitoring
   i. A monitoring waiver may be requested in the following circumstances:

1. If the geometric mean of four consecutive sampling results is below the statewide benchmarks in Schedule A.9 of the permit, sector specific benchmarks in Schedule E of the permit, or reference concentrations for impairment pollutants identified in the permit assignment letter, the permit registrant is not required to monitor for these pollutant(s) for the remainder of the permit term. The permit registrant must submit to DEQ or Agent the analytical laboratory results from the four sampling events.
   (a) Results from sampling events cannot be averaged.
   (b) Monitoring waivers may be allowed for individual parameters.
2. If the exceedance(s) is attributed solely to the presence of the pollutant(s) in natural background and is not associated with industrial activities at the site, DEQ or Agent will consider these samples as being below the benchmark(s) or reference concentrations for impairment pollutant(s). Permit registrant must submit a Natural Background Waiver report to DEQ that describes the investigation and analysis to demonstrate that the exceedances are due to natural background conditions and includes any data collected by the permit registrant or others (including literature studies) that describe the levels of natural background pollutants in the discharge.
3. If a facility is inactive and unstaffed and no industrial materials or activities are exposed to stormwater, the permit registrant is not required to conduct monitoring for the remainder of the permit term.
   (a) Permit registrant must provide documentation with the DMR indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii).
   (b) The statement must be signed and certified in accordance with Schedule F of the permit.

ii. The permit registrant must submit to DEQ or Agent a request to exercise the monitoring waiver based on the conditions above and include the documentation to support the request. If DEQ or Agent does not comment within 30 calendar days, the monitoring waiver is deemed approved.
   1. There is no reduction in monitoring allowed for:
      (a) Visual observations, unless the site is inactive or unstaffed and there are no industrial materials or activities exposed to stormwater and permit registrant meets requirements in Schedule B.4.a.i.3 of the permit.
      (b) Monitoring for federal numeric effluent limit guidelines.
   2. Revocation of Monitoring Waiver
      (a) The permit registrant must reinstate the monitoring of stormwater discharge if:
         (i) Prior monitoring efforts used to establish the monitoring waiver were improper or sampling results were incorrect;
         (ii) Changes to site conditions are likely to affect stormwater discharge characteristics;
         (iii) Additional monitoring occurs and the sampling results exceed benchmark(s), or
         (iv) For inactive or unstaffed sites, the facility becomes active and/or staffed or industrial materials or activities become exposed to stormwater
      (b) DEQ or Agent will notify the permit registrant in writing if the monitoring waiver is revoked.

5. **Additional Monitoring** - DEQ may notify permit registrants in writing of additional discharge monitoring requirements. Any such notice will state the reasons for the monitoring, locations and pollutants to be monitored, frequency and period of monitoring, sample types and reporting requirements.

6. **A New Permit Registrant Discharging to Clackamas River, McKenzie River above Hayden Bridge (River Mile 15) or North Santiam River** (For potential or existing dischargers that did not have a permit prior to January 28, 1994, and existing dischargers that have a NPDES stormwater discharge permit but request an increased load limitation.)
   a. Not later than 180 calendar days after obtaining permit coverage, permit registrant must submit to DEQ a monitoring and water quality evaluation program. This program must be effective in evaluating the in-stream impacts of the discharge as required by OAR 340-041-0350.
   b. Within 30 calendar days of DEQ approval, the permit registrant must implement the monitoring and water quality evaluation program.

INSPECTIONS

7. **Permit registrant must meet the following inspection requirements:**
   a. Conduct inspections on a monthly basis when the facility is in operation of areas where industrial materials or activities are exposed to stormwater and areas where stormwater control measures, structures, catch basins, and treatment facilities are located.
      i. Inspect the facility for the following:
         1. Industrial materials, residue, or trash that may have or could come into contact with stormwater;
         2. Leaks or spills from industrial equipment, drums, tanks, and other containers;
         3. Offsite tracking of industrial or waste materials, or sediment where vehicles enter or exit the site, excluding employee only entrances and exits;
         4. Tracking or blowing of raw, final, or waste materials;
         5. Evidence of, or the potential for, pollutants entering the drainage system;
         6. Evidence of pollutants discharging to receiving waters at all outfall(s), and the condition of and around the outfall;
         7. Presence of floating solids (associated with industrial activity), foam, visible oil sheen, discoloration of the stormwater discharge. Conduct visual observations when stormwater discharge is occurring during regular business hours and safe conditions, and
         8. Properly functioning stormwater control measures.
      ii. Exception for inactive or unstaffed sites as long as there are no industrial materials or activities exposed to stormwater. If circumstances change and industrial materials or activities become exposed to stormwater or the facility becomes active and/or staffed, this exception no longer applies and permit registrant must immediately resume monthly facility inspections.
      iii. For exceptionally large facilities where monthly inspections of all areas identified above are infeasible, DEQ or Agent may approve in writing a modified inspection frequency.
   b. Document the following in an inspection report that is retained on-site and submitted to DEQ or Agent upon request:
      i. The inspection date and time;
      ii. Control measures needing cleaning, replacement, maintenance, reconditioning or repair;
      iii. The condition of the drainage/conveyance system and need for maintenance;
      iv. Previously unidentified sources of pollutants, and
      v. Stormwater discharge observations and whether discharge contained floating solids (associated with industrial activity), foam, visible oil sheen, and was discolored. If these pollutants are present in the discharge, describe corrective action taken or will be taken to remedy the problem.

REPORTING AND RECORDKEEPING REQUIREMENTS

8. **Reporting Monitoring Data**
   a. The permit registrant must submit a DEQ-approved Discharge Monitoring Report (DMR) form to DEQ or Agent by July 31st of each year. Identify in the DMR the sampling results for the previous monitoring year and include the laboratory results from the testing laboratory.
   b. The permit registrant must report the minimum detection level and analytical methods for the parameters analyzed. Non-detections must be reported as "ND" with the detection level in mg/L parentheses, e.g., ND (0.005 mg/L). In calculating the geometric mean, one-half of the detection level must be used for non-detections.

9. **Exceedance Report for Numeric Effluent Limits**
   If follow-up monitoring pursuant to Schedule B.2.e.iii of the permit exceeds a numeric effluent limit, permit registrant must submit an Exceedance Report to DEQ or Agent no later than 30 calendar days after receiving the lab results. The report must include the monitoring data from this monitoring event and the preceding monitoring event(s) and an explanation of the situation; what the permit registrant has done to correct the violation or intends to do if the corrective actions are not complete.

10. **Record Keeping Procedures**- Permit registrant must record and maintain at the facility the following information. All records must be retained by the permit registrant for at least three (3) years and made available to DEQ, Agent or local municipality upon request.
    a. A copy of the SWPCP and any revisions, corrective actions reports, and monthly inspection reports.
    b. Inspection, maintenance, repair and education activities.
    c. Spills or leaks of significant materials (See Schedule D.3, Definitions) that impacted or had the potential to impact stormwater or surface waters. Include the corrective actions to clean up the spill or leak as well as measures to prevent future problems of the same nature.

SCHEDULE D
SPECIAL CONDITIONS

1. **Releases in Excess of Reportable Quantities.** This permit does not relieve the permit registrant of the reporting requirements of 40 CFR §117 Determination of Reportable Quantities for Hazardous Substances and 40 CFR §302 Designation, Reportable Quantities, and Notification.

2. **Availability of SWPCP and Monitoring Data.** The Stormwater Pollution Control Plan (SWPCP) or stormwater monitoring data must be made available to government agencies responsible for stormwater management in the permit registrant's area.

3. **Definitions**
   a. Capital Improvements means the following improvements that require capital expenditures:
      i. Treatment best management practices including but not limited to settling basins, oil/water separation equipment, grassy swales, detention/retention basins, and media filtration devices.
      ii. Manufacturing modifications that incur capital expenditures, including process changes for reduction of pollutants or wastes at the source.
      iii. Concrete pads, dikes and conveyance or pumping systems utilized for collection and transfer of stormwater to treatment systems.
      iv. Roofs and appropriate covers for manufacturing areas.
      v. Volume reduction measures, including low impact development control measures.
   b. Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.
   c. Co-located Industrial Activities means any industrial activities, excluding the primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i - ix, xi) and OAR 340-045-0033(5), and identified in *Table 1: Sources Covered* on page 3 of the permit. An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified in Table 1 of the permit.
   d. Control Measure means any Best Management Practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.
   e. Existing Discharger means an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.
   f. Impaired Waters means those waters identified by a State or EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards for one or more pollutants. This may include both waters with approved TMDLs, and those for which a TMDL has not yet been approved.
   g. Hazardous Substances as defined in 40 CFR §302 Designation, Reportable Quantities, and Notification.
   h. High Quality Waters means those waters that meet or exceed levels that are necessary to support the propagation of fish, shellfish, and wildlife; recreation in and on the water; and other designated beneficial uses for a given pollutant. Waters identified on the 303(d) list as not meeting applicable state water quality standards for a given pollutant are not high quality waters.
   i. Industrial Activity means the categories of industrial activities included in the definition of "stormwater discharges associated with industrial activity" as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).
   j. Industrial Stormwater means stormwater runoff from industrial activity.

k. Material Handling Activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.
l. Minimize means reduce or eliminate, or both, to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.
m. New Discharger means a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, that is not a new source, and that has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.
n. New Source means any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of that commenced: after promulgation of standards of performance under section 306 of the CWA that are applicable to such source, or after proposal of standards of performance in accordance with section 306 of the CWA that are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.
o. Outstanding Resource Waters means those waters designated by the commission where existing high quality waters constitute an outstanding state or national resource based on their extraordinary water quality or ecological values or where special water quality protection is needed to maintain critical habitat areas.
p. No exposure means all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).
q. Natural background pollutants include substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on the site, or pollutants in run-on from neighboring sources that are not naturally occurring.
r. Operator means any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:
    i. The entity has operational control over industrial activities, including the ability to modify those activities; or
    ii. The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).
s. Point Source Discharge means a discharge from any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, or conduit.
t. Primary industrial activity means any activities performed on-site that are (1) identified by the facility's primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.
u. Significant Materials includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges.
v. Stormwater Associated With Industrial Activity includes, but is not limited to, stormwater discharges from the following:
    i. Industrial plant yards;

ii. Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
iii. Material handling sites (Material handling activities include the storage, loading and unloading, transportation or conveyance of raw material, intermediate product, finished product, by-product or waste product.);
iv. Refuse sites;
v. Sites used for the application or disposal of process waste waters (as defined in 40 CFR § 401);
vi. Sites used for storage or maintenance of material handling equipment;
vii. Sites used for residual treatment, storage, or disposal; shipping and receiving areas;
viii. Manufacturing buildings;
ix. Storage areas (including tank farms) for raw materials, and intermediate and finished products;
x. Areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. Significant materials includes, but are not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical that a facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ash, slag, and sludge that have the potential to be released with stormwater discharges; and
xi. Stormwater run-on that commingles with stormwater discharges associated with industrial activity at the facility.

w. Stormwater Conveyance means a sewer, ditch, or swale that is designed to carry stormwater; a stormwater conveyance may also be referred to as a storm drain or storm sewer.
x. Total Maximum Daily Load (TMDL) is the sum of the individual Waste Load Allocations (WLAs) for point sources and Load Allocations (LAs) for nonpoint sources and background. See OAR 340-041-0002(65) and OAR 340-042-0030(15).
y. Treatment measures mean Best Management Practices that are intended to remove pollutants from stormwater. These measures include, but are not limited to: settling basins, oil/water separation equipment, detention/retention basins, media filtration devices, electrocoagulation, constructed wetlands and bioswales.
z. Wasteload Allocation (WLA) means the portion of receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation. See OAR 340-041-0002(67).

4. **Local Public Agencies Acting as DEQ's Agent**

DEQ has authorized certain local governments and special districts to act as its Agent in implementing portions of this permit. The Agent may be authorized to conduct the following activities, including but not limited to: application and SWPCP review, inspections, monitoring data review, stormwater and wastewater monitoring, and verification and approval of no-exposure certifications. Where DEQ has entered into such an agreement, DEQ or its Agent will notify the permit registrant of where to submit no-exposure certifications, and other notifications or correspondence associated with this permit.

SCHEDULE E
SECTOR SPECIFIC REQUIREMENTS

1. **Sector Specific Requirements**
   Permit registrants must meet the sector-specific requirements in Schedule E of the permit associated with their primary industrial activity and any co-located industrial activities, as defined in Schedule D of the permit. The sector-specific requirements apply to the areas of the facility where the sector-specific activities occur. Facilities may be subject to more than one sector/subsector requirement.
2. These sector-specific requirements in Schedule E are in addition to the requirements in Schedule A and B of the permit.
3. If there is a conflict with requirements in the "Sources that are Required to Obtain Coverage under the Permit" section or the "Permit Coverage and Exclusion from Coverage" section of the permit, the requirements in Schedule E will not apply.
4. Table E-1 below identifies the sectors/subsectors that are required to meet the sector specific requirements in Schedule E of the permit.

Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

Subsector	SIC Code or Activity Code	Activity Represented
SECTOR A: TIMBER PRODUCTS		
A1	2421	General Sawmills and Planing Mills
A3	2411	Log Storage and Handling
A4	2426	Hardwood Dimension and Flooring Mills
	2429	Special Product Sawmills, Not Elsewhere Classified
	2431-2439 (except 2434)	Millwork, Veneer, Plywood, and Structural Wood
	2448	Wood Pallets and Skids
	2449	Wood Containers, Not Elsewhere Classified
	2451, 2452	Wood Buildings and Mobile Homes
	2493	Reconstituted Wood Products
	2499	Wood Products, Not Elsewhere Classified
A5	2441	Nailed and Lock Corner Wood Boxes and Shook
SECTOR B: PAPER AND ALLIED PRODUCTS		
B1	2631	Paperboard Mills
B2	2611	Pulp Mills
	2621	Paper Mills
	2652-2657	Paperboard Containers and Boxes
	2671-2679	Converted Paper and Paperboard Products, Except Containers and Boxes

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Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

Subsector	SIC Code or Activity Code	Activity Represented
SECTOR C: CHEMICALS AND ALLIED PRODUCTS		
C1	2873-2879	Agricultural Chemicals
C2	2812-2819	Industrial Inorganic Chemicals
C3	2841-2844	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations
C4	2821-2824	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic and Other Manmade Fibers Except Glass
C5	2833-2836	Medicinal Chemicals and Botanical Products; Pharmaceutical Preparations; in vitro and in vivo Diagnostic Substances; and Biological Products, Except Diagnostic Substances
	2851	Paints, Varnishes, Lacquers, Enamels, and Allied Products
	2861-2869	Industrial Organic Chemicals
	2891-2899	Miscellaneous Chemical Products
	3952 (limited to list of inks and paints)	Inks and Paints, Including China Painting Enamels, India Ink, Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints and Artist's Watercolors
	2911	Petroleum Refining
SECTOR D: ASPHALT PAVING AND ROOFING MATERIALS AND LUBRICANTS		
D1	2951, 2952	Asphalt Paving and Roofing Materials
D2	2992, 2999	Miscellaneous Products of Petroleum and Coal
SECTOR E: GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCTS (some 1200-A)		
E1	3251-3259	Structural Clay Products
	3261-3269	Pottery and Related Products
E2	3271-3275	Concrete, Gypsum, and Plaster Products
E3	3211	Flat Glass
	3221, 3229	Glass and Glassware, Pressed or Blown
	3231	Glass Products Made of Purchased Glass
	3241	Hydraulic Cement
	3281	Cut Stone and Stone Products
	3291-3299	Abrasive, Asbestos, and Miscellaneous Nonmetallic Mineral Products
SECTOR F: PRIMARY METALS		
F1	3312-3317	Steel Works, Blast Furnaces, and Rolling and Finishing Mills
F2	3321-3325	Iron and Steel Foundries
F3	3351-3357	Rolling, Drawing, and Extruding of Nonferrous Metals
F4	3363-3369	Nonferrous Foundries (Castings)
F5	3331-3339	Primary Smelting and Refining of Nonferrous Metals

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Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

Subsector	SIC Code or Activity Code	Activity Represented
	3341	Secondary Smelting and Refining of Nonferrous Metals
	3398, 3399	Miscellaneous Primary Metal Products
SECTOR G: METAL MINING (ORE MINING AND DRESSING)		
G1	1021	Copper Ore and Mining Dressing Facilities
G2	1011	Iron Ores
	1021	Copper Ores
	1031	Lead and Zinc Ores
	1041, 1044	Gold and Silver Ores
	1061	Ferroalloy Ores, Except Vanadium
	1081	Metal Mining Services
	1094, 1099	Miscellaneous Metal Ores
SECTOR H: COAL MINES AND COAL MINING-RELATED FACILITIES		
H1	1221-1241	Coal Mines and Coal Mining-Related Facilities
SECTOR I: OIL AND GAS EXTRACTION AND REFINING		
I1	1311	Crude Petroleum and Natural Gas
	1321	Natural Gas Liquids
	1381-1389	Oil and Gas Field Services
SECTOR J: MINERAL MINING AND DRESSING- Discharges Covered by 1200-A General Permit		
SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES		
K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities
SECTOR L: LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS		
L1	LF	All Landfill, Land Application Sites and Open Dumps
L2	LF	All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60
SECTOR M: AUTOMOBILE SALVAGE YARDS		
M1	5015	Automobile Salvage Yards
SECTOR N: SCRAP RECYCLING FACILITIES		
N1	5093	Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling
N2	5093	Source-separated Recycling Facility
SECTOR O: STEAM ELECTRIC GENERATING FACILITIES		
O1	SE	Steam Electric Generating Facilities, including coal handling sites

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Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

Subsector	SIC Code or Activity Code	Activity Represented
SECTOR P: LAND TRANSPORTATION AND WAREHOUSING		
P1	4011, 4013	Railroad Transportation
	4111-4173	Local and Highway Passenger Transportation
	4212-4231	Motor Freight Transportation and Warehousing
	4311	United States Postal Service
	5171	Petroleum Bulk Stations and Terminals
SECTOR Q: WATER TRANSPORTATION		
Q1	4412-4499	Water Transportation Facilities
SECTOR R: SHIP AND BOAT BUILDING AND REPAIRING YARDS		
R1	3731, 3732	Ship and Boat Building or Repairing Yards
SECTOR S: AIR TRANSPORTATION FACILITIES		
S1	4512-4581	Air Transportation Facilities
SECTOR T: TREATMENT WORKS		
T1	TW	Treatment Works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR Part 403.
SECTOR U: FOOD AND KINDRED PRODUCTS		
U1	2041-2048	Grain Mill Products
U2	2074-2079	Fats and Oils Products
U3	2011-2015	Meat Products
	2021-2026	Dairy Products
	2032-2038	Canned, Frozen, and Preserved Fruits, Vegetables, and Food Specialties
	2051-2053	Bakery Products
	2061-2068	Sugar and Confectionery Products
	2082-2087	Beverages
	2091-2099	Miscellaneous Food Preparations and Kindred Products
	2111-2141	Tobacco Products

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Table E-1. Sectors of Industrial Activity with Sector Specific Requirements

Subsector	SIC Code or Activity Code	Activity Represented
SECTOR V: TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING; LEATHER AND LEATHER PRODUCTS		
V1	2211-2299	Textile Mill Products
	2311-2399	Apparel and Other Finished Products Made from Fabrics and Similar Materials
	3131-3199	Leather and Leather Products (note: see Sector Z1 for Leather Tanning and Finishing)
SECTOR X: PRINTING AND PUBLISHING		
X1	2711-2796	Printing, Publishing, and Allied Industries
SECTOR Y: RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISCELLANEOUS MANUFACTURING INDUSTRIES		
Y1	3011	Tires and Inner Tubes
	3021	Rubber and Plastics Footwear
	3052, 3053	Gaskets, Packing and Sealing Devices, and Rubber and Plastic Hoses and Belting
	3061, 3069	Fabricated Rubber Products, Not Elsewhere Classified
Y2	3081-3089	Miscellaneous Plastics Products
	3931	Musical Instruments
	3942-3949	Dolls, Toys, Games, and Sporting and Athletic Goods
	3951-3955 (except 3952 – see Sector C)	Pens, Pencils, and Other Artists' Materials
	3961, 3965	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal
	3991-3999	Miscellaneous Manufacturing Industries
SECTOR Z: LEATHER TANNING AND FINISHING		
Z1	3111	Leather Tanning and Finishing
SECTOR AA: FABRICATED METAL PRODUCTS		
AA1	3411-3499 (except 3479)	Fabricated Metal Products, Except Machinery and Transportation Equipment, and Coating, Engraving, and Allied Services.
	3911-3915	Jewelry, Silverware, and Plated Ware
AA2	3479	Fabricated Metal Coating and Engraving

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Subpart A – Sector A – Timber Products.

E.A.1 Additional Technology-Based Effluent Limits.

E.A.1.1 Good Housekeeping. In areas where storage, loading and unloading, and material handling occur, perform good housekeeping to limit the discharge of wood debris, minimize the leachate generated from decaying wood materials, and minimize the generation of dust.

E.A.2 Additional SWPCP Requirements.

E.A.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: processing areas, treatment chemical storage areas, treated wood and residue storage areas, wet decking areas, dry decking areas, untreated wood and residue storage areas, and treatment equipment storage areas.

E.A.2.2 Inventory of Exposed Materials. Where such information exists, if your facility has used chlorophenolic, creosote, or chromium-copper-arsenic formulations for wood surface protection or preserving, document in your SWPCP the following: areas where contaminated soils, treatment equipment, and stored materials still remain and the management practices employed to minimize the contact of these materials with stormwater runoff.

E.A.2.3 Description of Stormwater Management Controls. Document measures implemented to address the following activities and sources: log, lumber, and wood product storage areas; residue storage areas; loading and unloading areas; material handling areas; chemical storage areas; and equipment and vehicle maintenance, storage, and repair areas. If your facility performs wood surface protection and preservation activities, address the specific control measures, including any BMPs, for these activities.

E.A.3 Sector-Specific Benchmarks

Table E.A-1 identifies benchmarks that apply to the specific subsectors of Sector A. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.A-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector A1. General Sawmills and Planing Mills (SIC 2421)	Chemical Oxygen Demand (COD)	120.0 mg/L
Subsector A4. Hardwood Dimension and Flooring Mills; Special Products Sawmills, not elsewhere classified; Millwork, Veneer, Plywood, and Structural Wood; Wood Pallets and Skids; Wood Containers, not elsewhere classified; Wood Buildings and Mobile Homes; Reconstituted Wood Products; and Wood Products Facilities not elsewhere classified (SIC 2426, 2429, 2431-2439 (except 2434), 2441, 2448, 2449, 2451, 2452, 2493, and 2499)	Chemical Oxygen Demand (COD)	120.0 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart B – Sector B – Paper and Allied Products.

E.B.1 Sector-Specific Benchmarks.

Table E.B-1 identifies benchmarks that apply to the specific subsectors of Sector B. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.B-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector B1. Paperboard Mills (SIC Code 2631)	Chemical Oxygen Demand (COD)	120 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart C – Sector C – Chemical and Allied Products Manufacturing, and Refining.

E.C.1 Sector-Specific Benchmarks

Table E.C-1 identifies benchmarks that apply to the specific subsectors of Sector C. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.C-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector C1. Agricultural Chemicals (SIC 2873-2879)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Total Iron	1.0 mg/L
	Phosphorus	2.0 mg/L
Subsector C2. Industrial Inorganic Chemicals (SIC 2812-2819)	Total Aluminum	0.75 mg/ L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Subsector C3. Soaps, Detergents, Cosmetics, and Perfumes (SIC 2841-2844)	Nitrate plus Nitrite Nitrogen	0.68 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart D – Sector D – Asphalt Paving and Roofing Materials and Lubricant Manufacturing.

E.D.1 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.D-1 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.D-1[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from asphalt emulsion facilities.	Total Suspended Solids (TSS)	23.0 mg/L, daily maximum 15.0 mg/L, 30-day avg.
	pH	6.0 - 9.0 s.u.
	Oil and Grease	15.0 mg/L, daily maximum
		10 mg/L, 30-day avg.

[1]Monitor annually.

AGC0012111

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart E – Sector E – Glass, Clay, Cement, Concrete, and Gypsum Products.

E.E.1 Additional Technology-Based Effluent Limits.

E.E.1.1 Good Housekeeping Measures. With good housekeeping, prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), kiln dust, fly ash, settled dust, or other significant material in stormwater from paved portions of the site that are exposed to stormwater. Consider sweeping regularly or using other equivalent measures to minimize the presence of these materials. Indicate in your SWPCP the frequency of sweeping or equivalent measures. Determine the frequency based on the amount of industrial activity occurring in the area and the frequency of precipitation, but it must be performed at least once a week if cement, aggregate, kiln dust, fly ash, or settled dust are being handled or processed. You must also prevent the exposure of fine granular solids (cement, fly ash, kiln dust, etc.) to stormwater, where practicable, by storing these materials in enclosed silos, hoppers, or buildings, or under other covering.

E.E.2 Additional SWPCP Requirements.

E.E.2.1 Drainage Area Site Map. Document in the SWPCP the locations of the following, as applicable: bag house or other dust control device; recycle/sedimentation pond, clarifier, or other device used for the treatment of process wastewater; and the areas that drain to the treatment device.

E.E.3 Sector-Specific Benchmarks.

Table E.E-1 identifies benchmarks that apply to the specific subsectors of Sector E. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.E-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Subsector E1. Clay Product Manufacturers (SIC 3251-3259, 3261-3269)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

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E.E.4 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.E-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.E-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from material storage piles at cement manufacturing facilities	Total Suspended Solids (TSS)	50 mg/L, daily maximum
	pH	6.0 - 9.0 s.u.

[1]Monitor annually.

AGC0012113

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart F – Sector F – Primary Metal

E.F.1 Additional Technology-Based Effluent Limits

E.F.1.1 Good Housekeeping Measures. As part of your good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For unstabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

E.F.2 Additional SWPCP Requirements.

E.F.2.1 Drainage Area Site Map. Identify in the SWPCP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants to waters of the United States.

E.F.2.2 Inventory of Exposed Material. Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible

E.F.3 Additional Inspection Requirements. As part of conducting your monthly inspections address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Consider monitoring air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or stormwater runoff.

AGC0012114

E.F.4 Sector-Specific Benchmarks.

Table E.F-1 identifies benchmarks that apply to the specific subsectors of Sector F. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.F-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Subsector F1. Steel Works, Blast Furnaces, and Rolling and Finishing Mills (SIC 3312-3317)	Total Aluminum	0.75 mg/L
Subsector F2. Iron and Steel Foundries (SIC 3321-3325)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

AGC0012115

Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart G – Sector G – Metal Mining.

E.G.1 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

E.G.1.1 Mining operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

E.G.1.2 Exploration phase - Entails exploration and land disturbance activities to determine the viability of a site. The exploration phase is not considered part of "mining operations."

E.G.1.3 Construction phase - Includes the building of site access roads and removal of overburden and waste rock to expose mineable minerals. The construction phase is not considered part of "mining operations."

E.G.1.4 Active phase - Activities including the extraction, removal or recovery of metal ore. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a). The active phase is considered part of "mining operations."

E.G.1.5 Reclamation phase - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the "active phase", intended to return the land to an appropriate post-mining land use in order to meet applicable Federal and State reclamation requirements. The reclamation phase is considered part of "mining operations."

E.G.1.6 Active metal mining facility - A place where work or other activity related to the extraction, removal, or recovery of metal ore is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 440.132(a).

E.G.1.7 Inactive metal mining facility - A site or portion of a site where metal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive metal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.

E.G.1.8 Temporarily inactive metal mining facility - A site or portion of a site where metal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

E.G.1.9 Final Stabilization - A site or portion of a site is "finally stabilized" when it has implemented all applicable Federal and State reclamation requirements.

AGC0012116

E.G.2 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

E.G.2.1 Management Practices for Clearing, Grading, and Excavation Activities.

E.G.2.1.1 Selecting and installing control measures. For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable effluent limits in Schedule A of the permit.

E.G.2.1.2 Good Housekeeping. Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

E.G.2.1.3 Retention and Detention of Stormwater Runoff. For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for side slope boundaries as necessary based on individual site conditions) of the development area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided. You are required to remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50 percent. Due to high sediment discharges from some Sector G facilities, permittees may need to implement a combination of structural BMP approaches to sufficiently decrease discharge of sediment from their facilities.

E.G.2.2 Inspection of Clearing, Grading, and Excavation Activities.

E.G.2.2.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized, if runoff is unlikely due to winter (e.g., site is covered with snow or ice) or frozen conditions, or construction is occurring during seasonal dry periods in arid areas and semi-arid areas.

E.G.2.2.2 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to surface waters of the state, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

E.G.2.2.3 Inspection Reports. For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include the information required in Schedule B.7 of the permit.

E.G.2.3 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

E.G.2.3.1 Inspections and Maintenance. Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and excavation activities being

conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area, or until the commencement of the active mining phase for those areas that have been temporarily stabilized as a precursor to mining.

E.G.2.3.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable. Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

E.G.2.3.3 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where exploration and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, final vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers, must be used.

E.G.3 Additional Technology-Based Effluent Limits.

E.G.3.1 Stormwater Controls. Apart from the control measures you implement to meet your effluent limits, consider implementing the following control measures at your site. The potential pollutants identified in Schedule E.G.6.3 shall determine the priority and appropriateness of the control measures selected.

E.G.3.1.1 Stormwater Diversions: Consider diverting stormwater away from potential pollutant sources. Following are some options: interceptor or diversion controls (e.g., dikes, swales, curbs, or berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents.

E.G.3.1.2 Capping: When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

E.G.3.1.3 Treatment: If treatment of stormwater (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. Passive and/or active treatment of stormwater runoff is encouraged where practicable. Treated runoff may be discharged as a stormwater source regulated under this permit provided the discharge is not combined

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with discharges subject to effluent limitation guidelines for the Ore Mining and Dressing Point Source Category (40 CFR Part 440).

E.G.3.2 Certification of Discharge Testing. Test or evaluate all outfalls covered under this permit for the presence of specific mining-related non-stormwater discharges such as seeps or adit discharges, or discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 440), such as mine drainage or process water. Alternatively (if applicable), you may keep a certification with your SWPCP consistent with Schedule E.G.6.6.

E.G.4 Additional SWPCP Requirements.

E.G.4.1 Nature of Industrial Activities. Briefly document in your SWPCP the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

E.G.4.2 Site Map. Document in your SWPCP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each stormwater outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual NPDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage (where water leaves mine) or other process water; tailings piles and ponds (including proposed ones); heap leach pads; off-site points of discharge for mine drainage and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

E.G.4.3 Potential Pollutant Sources. For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, identify the types of pollutants (e.g., heavy metals, sediment) likely to be present in significant amounts. Consider these factors: the mineralogy of the ore and waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with stormwater; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing ore or waste rock or overburden characterization data and test results for potential generation of acid rock. If any new data is acquired due to changes in ore type being mined, update your SWPCP with this information.

E.G.4.4 Documentation of Control Measures. Document all control measures that you implement consistent with Schedule E.G.5.2. If control measures are implemented or planned but are not listed in Schedule E.G.5.2 (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPCP.

E.G.4.5 Certification of Permit Coverage for Commingled Non-Stormwater Discharges: If you are able, consistent with Schedule E.G.5.3 above, to certify that a particular discharge composed of commingled stormwater and non-stormwater is covered under a separate NPDES permit, and that permit subjects the non-stormwater portion to effluent limitations prior to any commingling, retain such certification with your SWPCP. This certification must identify the non-stormwater discharges, the applicable NPDES permit(s), the effluent limitations placed on the non-stormwater discharge by the permit(s), and the points at which the limitations are applied.

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E.G.5 Additional Inspection Requirements.

Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Schedule E.G.4.2.1, inspect sites at least monthly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters which are impaired for sediment or nitrogen must be inspected monthly.

E.G.6 Monitoring and Reporting Requirements.

E.G.6.1 Benchmark Monitoring for Active Copper Ore Mining and Dressing Facilities. Active copper ore mining and dressing facilities, must sample and analyze stormwater discharges for the pollutants listed in Table E.G-1.

Table E.G-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector G1-Active Copper Ore Mining and Dressing Facilities (SIC 1021)	Nitrate plus Nitrite Nitrogen	0.68 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L

E.G.6.2 Benchmark Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities. For discharges from waste rock and overburden piles, perform benchmark monitoring once in the first year for the parameters listed in Table E.G-2, and twice annually in all subsequent years of coverage under this permit for any parameters for which the benchmark has been exceeded. You are also required to conduct analytic monitoring for the parameters listed in Table E.G-3 in accordance with the requirements in Schedule E.G.6.3. DEQ may also notify you that you must perform additional monitoring to accurately characterize the quality and quantity of pollutants discharged from your waste rock and overburden piles.

Table E.G-2.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Cutoff Concentration
Subsector G2. Iron Ores; Copper Ores; Lead and Zinc Ores; Gold and Silver Ores; Ferroalloy Ores, Except Vanadium; and Miscellaneous Metal Ores (SIC Codes 1011, 1021, 1031, 1041, 1044, 1061, 1081, 1094, 1099) Note: when analyzing hardness for a suite of metals, it is more cost effective to add analysis of calcium and magnesium, and have hardness calculated than to require hardness analysis separately.	Turbidity	50 NTU
	Hardness (as $CaCO_3$; calc. from Ca, Mg)[1]	no benchmark value
	Total Antimony	0.64 mg/L
	Total Arsenic	0.15 mg/ L
	Total Beryllium	0.13 mg/L
	Total Cadmium	0.001 mg/L
	Total Iron	1.0 mg/L
	Total Mercury	0.0014 mg/L
	Total Nickel	0.5 mg/L
	Total Selenium	0.005 mg/L
	Total Silver	0.0005 mg/L

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E.G.6.3 Additional Analytic Monitoring Requirements for Discharges From Waste Rock and Overburden Piles at Active Metal Mining Facilities. In addition to the monitoring required in Schedule E.G.6.2 for discharges from waste rock and overburden piles, you must also conduct monitoring for additional parameters based on the type of ore you mine at your site. Where a parameter in Table E.G-3 is the same as a pollutant you are required to monitor for in Table E.G-2 (i.e., for all of the metals, you must use the corresponding benchmark in Table E.G-2 and you may use any monitoring results conducted for Schedule E.G.6.2 to satisfy the monitoring requirement for that parameter for Schedule E.G.6.3. For radium and uranium, which do not have corresponding benchmarks in Table E.G-2, there are no applicable benchmarks.)

Table E.G-3. Additional Monitoring Requirements for Discharges from Waste Rock and Overburden Piles

Supplemental Requirements			
Type of Ore Mined	**Pollutants of Concern**		
	Total Suspended Solids (TSS)	**pH**	**Metals, Total**
Tungsten Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Nickel Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Aluminum Ore	X	X	Iron
Mercury Ore	X	X	Nickel (H)
Iron Ore	X	X	Iron (Dissolved)
Platinum Ore			Cadmium (H), Copper (H), Mercury, Lead (H), Zinc (H)
Titanium Ore	X	X	Iron, Nickel (H), Zinc (H)
Vanadium Ore	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Zinc (H)
Molybdenum	X	X	Arsenic, Cadmium (H), Copper (H), Lead (H), Mercury, Zinc (H)
Uranium, Radium, and Vanadium Ore	X	X	Chemical Oxygen Demand, Arsenic, Radium (Dissolved and Total), Uranium, Zinc (H)

Note: An "X" indicated for TSS and/or pH means that you are required to monitor for those parameters. (H) indicates that hardness must also be measured when this pollutant is measured.

E.G.6.4 Inactive and Unstaffed Sites –As a Sector G facility, if you are seeking to exercise a monitoring or inspection waiver, you are conditionally exempt from the requirement to certify that "there are no industrial materials or activities exposed to stormwater" in Schedule B.4 of the permit. This exemption is conditioned on the following:

- If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the monitoring and inspection requirements; and
- DEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

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Table E.G-4. Applicability of the Permit to Stormwater Runoff From Active Mining and Dressing Sites, Temporarily Inactive Sites, and Sites Undergoing Reclamation

Discharge/Source of Discharge	Note/Comment
Piles	
Waste rock/overburden	If composed entirely of stormwater and not combining with mine drainage. See note below.
Topsoil	--
Roads constructed of waste rock or spent ore	
Onsite haul roads	If composed entirely of stormwater and not combining with mine drainage. See note below.
Offsite haul and access roads	--
Roads not constructed of waste rock or spent ore	
Onsite haul roads	Except if mine drainage is used for dust control
Offsite haul and access roads	--
Milling/concentrating	
Runoff from tailings dams and dikes when constructed of waste rock/tailings	Except if process fluids are present and only if composed entirely of stormwater and not combining with mine drainage. See Note below.
Runoff from tailings dams/dikes when not constructed of waste rock and tailings	Except if process fluids are present
Concentration building	If stormwater only and no contact with piles
Mill site	If stormwater only and no contact with piles
Ancillary areas	
Office and administrative building and housing	If mixed with stormwater from the industrial area
Chemical storage area	--
Docking facility	Except if excessive contact with waste product that would otherwise constitute mine drainage
Explosive storage	--
Fuel storage (oil tanks/coal piles)	--
Vehicle and equipment maintenance area/building	--
Parking areas	But coverage unnecessary if only employee and visitor-type parking
Power plant	
Truck wash area	Except when excessive contact with waste product that would otherwise constitute mine drainage
Reclamation-related areas	
Any disturbed area (unreclaimed)	Only if not in active mining area
Reclaimed areas released from reclamation requirements prior to Dec. 17, 1990	--
Partially/inadequately reclaimed areas or areas not released from reclamation requirements	--

Note: Stormwater runoff from these sources are subject to the NPDES program for stormwater unless mixed with discharges subject to 40 CFR Part 440 that are regulated by another permit prior to mixing. Non-stormwater discharges from these sources are subject to NPDES permitting and may be subject to the effluent limitation guidelines under 40 CFR Part 440. Discharges from overburden/waste rock and overburden/waste rock-related areas are not subject to 40 CFR Part 440 unless: (1) it drains naturally (or is intentionally diverted) to a point source; and (2) combines with "mine drainage" that is otherwise regulated under the Part 440 regulations. For such sources, coverage under this permit would be available if the discharge composed entirely of stormwater does not combine with other sources of mine drainage that are not subject to 40 CFR Part 440, as well as meeting other eligibility criteria contained in the permit.

E.G.7. Termination of Permit Coverage

E.G.7.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990. A site or a portion of a site that has been released from applicable state or federal reclamation requirements

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after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Schedule E.G.7.2.

E.G.7.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990. A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart H – Sector H – Coal Mines and Coal Mining-Related Facilities.

E.H.1 Definitions

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

E.H.1.1 Mining operation - Consists of the active and temporarily inactive phases, and the reclamation phase, but excludes the exploration and construction phases.

E.H.1.2 Exploration phase - Entails exploration and land disturbance activities to determine the financial viability of a site. The exploration phase is not considered part of "mining operations."

E.H.1.3 Construction phase - Includes the building of site access roads and removal of overburden and waste rock to expose mineable coal. The construction phase is not considered part of "mining operations."

E.H.1.4 Active phase - Activities including the extraction, removal or recovery of coal. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 434.11(b). The active phase is considered part of "mining operations."

E.H.1.5 Reclamation phase - Activities undertaken, in compliance with applicable mined land reclamation requirements, following the cessation of the "active phase", intended to return the land to an appropriate post-mining land use. The reclamation phase is considered part of "mining operations."

E.H.1.6 Active coal mining facility - A place where work or other activity related to the extraction, removal, or recovery of coal is being conducted. For surface mines, this definition does not include any land where grading has returned the earth to a desired contour and reclamation has begun. This definition is derived from the definition of "active mining area" found at 40 CFR 434.11(b).

E.H.1.7 Inactive coal mining facility - A site or portion of a site where coal mining and/or milling occurred in the past but is not an active facility as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable State or Federal agency. An inactive coal mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.

E.H.1.8 Temporarily inactive coal mining facility - A site or portion of a site where coal mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable State or Federal agency.

E.H.1.9 Final Stabilization - A site or portion of a site is "finally stabilized" when it has implemented all applicable Federal and State reclamation requirements.

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E.H.2 Technology-Based Effluent Limits for Clearing, Grading, and Excavation Activities.

Clearing, grading, and excavation activities being conducted as part of the exploration and construction phase of mining activities are covered under this permit.

E.H.2.1 Management Practices for Clearing, Grading, and Excavation Activities.

E.H.2.1.1 Selecting and installing control measures. For all areas affected by clearing, grading, and excavation activities, you must select, design, install, and implement control measures that meet applicable Part 2 effluent limits.

E.H.2.1.2 Good Housekeeping. Litter, debris, and chemicals must be prevented from becoming a pollutant source in stormwater discharges.

E.H.2.1.3 Retention and Detention of Stormwater Runoff. For drainage locations serving more than one acre, sediment basins and/or temporary sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and side slope boundaries as necessary based on individual site conditions) of the development area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided. You are required to remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50 percent. Due to high sediment discharges from some Sector H facilities, permittees may need to implement a combination of structural BMP approaches to sufficiently decrease discharge of sediment from their facilities.

E.H.2.2 Inspection of Clearing, Grading, and Excavation Activities.

E.H.2.2.1 Inspection Frequency. Inspections must be conducted either at least once every 7 calendar days, or at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. Inspection frequency may be reduced to at least once every month if the entire site is temporarily stabilized, if runoff is unlikely due to winter (e.g., site is covered with snow or ice) or frozen conditions, or construction is occurring during seasonal dry periods in arid areas and semi-arid areas.

E.H.2.2.2 Location of Inspections. Inspections must include all areas of the site disturbed by clearing, grading, and/or excavation activities and areas used for storage of materials that are exposed to precipitation. Sedimentation and erosion control measures must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of significant off-site sediment tracking.

E.H.2.3 Requirements for Cessation of Clearing, Grading, and Excavation Activities.

E.H.2.3.1 Inspections and Maintenance. Inspections and maintenance of control measures, including BMPs, associated with clearing, grading, and/or excavation activities being conducted as part of the exploration and construction phase of a mining operation must continue until final stabilization has been achieved on all portions of the disturbed area.

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E.H.2.3.2 Temporary Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where clearing, grading and/or excavation activities have temporarily ceased, but in no case more than 14 days after the clearing, grading and/or excavation activities in that portion of the site have temporarily ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has temporarily ceased, temporary vegetative stabilization measures must be initiated as soon as practicable. Until temporary vegetative stabilization is achieved, interim measures such as erosion control blankets with an appropriate seed base and tackifiers must be employed. In areas of the site, where exploration and/or construction has permanently ceased prior to active mining, temporary stabilization measures must be implemented to minimize mobilization of sediment or other pollutants until such time as the active mining phase commences.

E.H.2.3.2 Final Stabilization of Disturbed Areas. Stabilization measures should be initiated immediately in portions of the site where exploration and/or construction activities have permanently ceased, but in no case more than 14 days after the exploration and/or construction activity in that portion of the site has permanently ceased. In arid, semiarid, and drought-stricken areas, or in areas subject to snow or freezing conditions, or in areas subject to snow or freezing conditions, where initiating perennial vegetative stabilization measures is not possible within 14 days after mining, exploration, and/or construction activity has permanently ceased, temporary vegetative stabilization measures must be initiated as soon as possible. Until final stabilization is achieved temporary stabilization measures, such as erosion control blankets with an appropriate seed base and tackifiers, must be used.

E.H.3 Additional Technology-Based Effluent Limits.

E.H.3.1 Good Housekeeping Measures. As part of your good housekeeping program, consider using sweepers and covered storage, watering haul roads to minimize dust generation, and conserving vegetation (where possible) to minimize erosion.

E.H.3.2 Preventive Maintenance. Perform inspections or other equivalent measures of storage tanks and pressure lines of fuels, lubricants, hydraulic fluid, and slurry to prevent leaks due to deterioration or faulty connections.

E.H.4 Additional SWPCP Requirements.

E.H.4.1 Other Applicable Regulations. Most active coal mining-related areas (SIC Codes 1221-1241) are subject to sediment and erosion control regulations of the U.S. Office of Surface Mining (OSM) that enforces the Surface Mining Control and Reclamation Act (SMCRA). OSM has granted authority to most coal-producing states to implement SMCRA through State SMCRA regulations. All SMCRA requirements regarding control of stormwater-related pollutant discharges must be addressed and then documented with the SWPCP (directly or by reference).

E.H.4.2 Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas; acidic spoil, refuse, or unreclaimed disturbed areas; and liquid storage tanks containing pollutants such as caustics, hydraulic fluids, and lubricants.

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E.H.4.3 Potential Pollutant Sources. Document in your SWPCP the following sources and activities that have potential pollutants associated with them: truck traffic on haul roads and resulting generation of sediment subject to runoff and dust generation; fuel or other liquid storage; pressure lines containing slurry, hydraulic fluid, or other potential harmful liquids; and loading or temporary storage of acidic refuse or spoil.

E.H.5 Additional Inspection Requirements.

E.H.5.1 Inspections of Active Mining-Related Areas. Except for areas of the site subject to clearing, grading, and/or excavation activities conducted as part of the exploration and construction phase, which are subject to Schedule E.H.2.2.1, perform monthly inspections of active mining areas covered by this permit, corresponding with the inspections as performed by SMCRA inspectors, of all mining-related areas required by SMCRA. Also maintain the records of the SMCRA authority representative.

E.H.5.2 Sediment and Erosion Control. Meet SMCRA inspection requirements for sediment and erosion control measures for areas subject to SMCRA authority.

E.H.5.3 Site Inspections. Your inspection program must include inspections for pollutants entering the drainage system from activities located on or near coal mining-related areas. Among the areas to be inspected are haul and access roads; railroad spurs, sliding, and internal hauling lines; conveyor belts, chutes, and aerial tramways; equipment storage and maintenance yards; coal handling buildings and structures; and inactive mines and related areas.

E.H.6 Sector-Specific Benchmarks.

Table E.H-1 identifies benchmarks that apply to the specific subsectors of Sector H. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.H-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector H1. Coal Mines and Related Areas (SIC 1221-1241)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

E.H.6.1 Inactive and Unstaffed Sites –If you are seeking to exercise a monitoring or inspection waiver for inactive and unstaffed sites (including temporarily inactive sites), you are conditionally exempt from the requirement to certify that "there are no industrial materials or activities exposed to stormwater" in Schedule B.4 of the permit.

E.H.6.1.1 If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the monitoring and inspection; and

E.H.6.2.3 DEQ retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause or contribute to an instream excursion above an applicable water quality standard, including designated uses.

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E.H.7 Termination of Permit Coverage

E.H.7.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990. A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed.

E.H.7.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990. A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart I – Sector I – Oil and Gas Extraction.

E.I.1 Additional Technology-Based Effluent Limits.

E.I.1.1 Vegetative Controls. Implement vegetative practices designed to preserve existing vegetation, where attainable, and revegetate open areas as soon as practicable after grade drilling. Consider the following (or equivalent measures): temporary or permanent seeding, mulching, sod stabilization, vegetative buffer strips, and tree protection practices. Begin implementing appropriate vegetative practices on all disturbed areas within 14 days following the last activity in that area.

E.I.2 Additional SWPCP Requirements.

E.I.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: Reportable Quantity (RQ) releases; locations used for the treatment, storage, or disposal of wastes; processing areas and storage areas; chemical mixing areas; construction and drilling areas; all areas subject to the effluent guidelines requirements for "No Discharge" in accordance with 40 CFR 435.32; and the structural controls to achieve compliance with the "No Discharge" requirements.

E.I.2.2 Potential Pollutant Sources. Also document in your SWPCP the following sources and activities that have potential pollutants associated with them: chemical, cement, mud, or gel mixing activities; drilling or mining activities; and equipment cleaning and rehabilitation activities. In addition, include information about the reportable quantity (RQ) release that triggered the permit application requirements: the nature of the release (e.g., spill of oil from a drum storage area), amount of oil or hazardous substance released, amount of substance recovered, date of the release, cause of the release (e.g., poor handling techniques and lack of containment in the area), areas affected by the release (i.e., land and water), procedure to clean up release, actions or procedures implemented to prevent or improve response to a release, and remaining potential contamination of stormwater from release (taking into account human health risks, the control of drinking water intakes, and the designated uses of the receiving water).

E.I.2.3 Erosion and Sedimentation Control. Unless covered by the NPDES Construction Stormwater 1200-C General Permit, the additional documentation requirements for sediment and erosion controls for well drillings and sand/shale mining areas include the following:

E.I.2.3.1 Site Description. Also include a description in your SWPCP of the nature of the exploration activity, estimates of the total area of site and area disturbed due to exploration activity, an estimate of runoff coefficient of the site, a site drainage map, including approximate slopes, and the names of all receiving waters.

E.I.2.3.2 Vegetative Controls. Document vegetative practices used in the SWPCP.

E.I.3 Additional Inspection Requirements.

All erosion and sedimentation control measures must be inspected every 7 days.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart K – Sector K – Hazardous Waste Treatment, Storage, or Disposal Facilities.

E.K.1 Definitions.

K.1.1 *Contaminated stormwater* - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in E.K.1.4. Some specific areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

K.1.2 *Drained free liquids* - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

K.1.3 *Landfill* - an area of land or an excavation in which wastes are placed for permanent disposal, but that is not a land application or land treatment unit, surface impoundment, underground injection well, waste pile, salt dome formation, salt bed formation, underground mine, or cave as these terms are defined in 40 CFR 257.2, 258.2, and 260.10.

K1.4 *Landfill wastewater* - as defined in 40 CFR Part 445 (Landfills Point Source Category), all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill wastewater includes, but is not limited to, leachate, gas collection condensate, drained free liquids, laboratory derived wastewater, contaminated stormwater, and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

K.1.5 *Leachate* - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

K.1.6 *Non-contaminated stormwater* - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater as defined in E.K.1.4. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

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E.K.2 Sector-Specific Benchmarks.

Table E.K-1 identifies benchmarks that apply to the specific subsectors of Sector K. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.K-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector K1. ALL - Industrial Activity Code "HZ" (Note: permit coverage limited in some States). Benchmarks only applicable to discharges not subject to effluent limitations in 40 CFR Part 445 Subpart A.	Ammonia	2.14 mg/L
	Total Magnesium	0.064 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Total Arsenic	0.15 mg/L
	Total Cadmium	0.001 mg/L
	Total Cyanide	0.022 mg/ L
	Total Nickel	0.5 mg/L
	Total Mercury	0.0014 mg/ L
	Total Selenium	0.005 mg/L
	Total Silver	0.0005 mg/L

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E.K.3 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.K-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table 8.K-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart A.	Biochemical Oxygen Demand (BOD_5)	220 mg/L, daily maximum
		56 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.042 mg/L, daily maximum
		0.019 mg/L, monthly avg. maximum
	Aniline	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Benzoic Acid	0.119 mg/L, daily maximum
		0.073 mg/L, monthly avg. maximum
	Naphthalene	0.059 mg/L, daily maximum
		0.022 mg/L, monthly avg. maximum
	p-Cresol	0.024 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Phenol	0.048 mg/L, daily maximum
		0.029 mg/L, monthly avg. maximum
	Pyridine	0.072 mg/L, daily maximum
		0.025 mg/L, monthly avg. maximum
	Total Arsenic	1.1 mg/L, daily maximum
		0.54 mg/L, monthly avg. maximum
	Total Chromium	1.1 mg/L, daily maximum
		0.46 mg/L, monthly avg. maximum
	Total Zinc	0.535 mg/L, daily maximum
		0.296 mg/L, monthly avg. maximum
	pH	Within the range of 6-9 standard pH units (s.u.)

[1] Monitor annually.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart L – Sector L – Landfills, Land Application Sites, and Open Dumps.

E.L.1 Definitions.

E.L.1.1 Contaminated stormwater - stormwater that comes into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Some areas of a landfill that may produce contaminated stormwater include (but are not limited to) the open face of an active landfill with exposed waste (no cover added); the areas around wastewater treatment operations; trucks, equipment, or machinery that has been in direct contact with the waste; and waste dumping areas.

E.L.1.2 Drained free liquids - aqueous wastes drained from waste containers (e.g., drums) prior to landfilling.

E.L.1.3 Landfill wastewater - as defined in 40 CFR Part 445 (Landfills Point Source Category) all wastewater associated with, or produced by, landfilling activities except for sanitary wastewater, non-contaminated stormwater, contaminated groundwater, and wastewater from recovery pumping wells. Landfill process wastewater includes, but is not limited to, leachate; gas collection condensate; drained free liquids; laboratory-derived wastewater; contaminated stormwater; and contact washwater from washing truck, equipment, and railcar exteriors and surface areas that have come in direct contact with solid waste at the landfill facility.

E.L.1.4 Leachate - liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.

E.L.1.5 Non-contaminated stormwater - stormwater that does not come into direct contact with landfill wastes, the waste handling and treatment areas, or landfill wastewater. Non-contaminated stormwater includes stormwater that flows off the cap, cover, intermediate cover, daily cover, and/or final cover of the landfill.

E.L.2 Additional Technology-Based Effluent Limits.

E.L.2.1 Preventive Maintenance Program. As part of your preventive maintenance program, maintain the following: all elements of leachate collection and treatment systems, to prevent commingling of leachate with stormwater; the integrity and effectiveness of any intermediate or final cover (including repairing the cover as necessary), to minimize the effects of settlement, sinking, and erosion.

E.L.2.2 Erosion and Sedimentation Control. Provide temporary stabilization (e.g., temporary seeding, mulching, and placing geotextiles on the inactive portions of stockpiles) for the following: materials stockpiled for daily, intermediate, and final cover; inactive areas of the landfill or open dump; landfills or open dump areas that have gotten final covers but where vegetation has yet to establish itself; and land application sites where waste application has been completed but final vegetation has not yet been established.

E.L.2.3 Unauthorized Discharge Test Certification. The discharge test and certification must also be conducted for the presence of leachate and vehicle washwater.

E.L.3 Additional SWPCP Requirements.

E.L.3.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: active and closed landfill cells or trenches, active and closed land application areas, locations where open dumping is occurring or has occurred,

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locations of any known leachate springs or other areas where uncontrolled leachate may commingle with runoff, and leachate collection and handling systems.

E.L.3.2 Summary of Potential Pollutant Sources. Document in your SWPCP the following sources and activities that have potential pollutants associated with them: fertilizer, herbicide, and pesticide application; earth and soil moving; waste hauling and loading or unloading; outdoor storage of significant materials, including daily, interim, and final cover material stockpiles as well as temporary waste storage areas; exposure of active and inactive landfill and land application areas; uncontrolled leachate flows; and failure or leaks from leachate collection and treatment systems.

E.L.4 Additional Inspection Requirements.

E.L.4.1 Inspections of Active Sites. Except in arid and semi-arid climates, inspect operating landfills, open dumps, and land application sites at least once every 7 days. Focus on areas of landfills that have not yet been finally stabilized; active land application areas, areas used for storage of material and wastes that are exposed to precipitation, stabilization, and structural control measures; leachate collection and treatment systems; and locations where equipment and waste trucks enter and exit the site. Ensure that sediment and erosion control measures are operating properly. For stabilized sites and areas where land application has been completed, or where the climate is arid or semi-arid, conduct inspections at least once every month.

E.L.4.2 Inspections of Inactive Sites. Inspect inactive landfills, open dumps, and land application sites at least monthly. Qualified personnel must inspect landfill (or open dump) stabilization and structural erosion control measures, leachate collection and treatment systems, and all closed land application areas.

E.L.5 Additional Post-Authorization Documentation Requirements.

E.L.5.1 Recordkeeping and Internal Reporting. Keep records with your SWPCP of the types of wastes disposed of in each cell or trench of a landfill or open dump. For land application sites, track the types and quantities of wastes applied in specific areas.

E.L.6 Sector-Specific Benchmarks

Table E.L-1 identifies benchmarks that apply to the specific subsectors of Sector L. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.L-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration[1]
Subsector L2. All Landfill, Land Application Sites and Open Dumps, except Municipal Solid Waste Landfill (MSWLF) Areas Closed in Accordance with 40 CFR 258.60 (Industrial Activity Code "LF")	Total Iron	1.0 mg/L

[1]Benchmark monitoring required only for discharges not subject to effluent limitations in 40 CFR Part 445 Subpart B (see Table L-2 below).

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E.L.7. Effluent Limitations Based on Effluent Limitations Guidelines

Table E.L-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.L-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from non-hazardous waste landfills subject to effluent limitations in 40 CFR Part 445 Subpart B.	Biochemical Oxygen Demand (BOD_5)	140 mg/L, daily maximum
		37 mg/L, monthly avg. maximum
	Total Suspended Solids (TSS)	88 mg/L, daily maximum
		27 mg/L, monthly avg. maximum
	Ammonia	10 mg/L, daily maximum
		4.9 mg/L, monthly avg. maximum
	Alpha Terpineol	0.033 mg/L, daily maximum
		0.016 mg/L monthly avg. maximum
	Benzoic Acid	0.12 mg/L, daily maximum
		0.071 mg/L, monthly avg. maximum
	p-Cresol	0.025 mg/L, daily maximum
		0.014 mg/L, monthly avg. maximum
	Phenol	0.026 mg/L, daily maximum
		0.015 mg/L, monthly avg. maximum
	Total Zinc	0.20 mg/L, daily maximum
		0.11 mg/L, monthly avg. maximum
	pH	Within the range of 6-9 standard pH units (s.u.)

[1] Monitor annually.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart M – Sector M – Automobile Salvage Yards.

E.M.1 Additional Technology-Based Effluent Limits.

E.M.1.1 Spill and Leak Prevention Procedures. Drain vehicles intended to be dismantled of all fluids upon arrival at the site (or as soon thereafter as feasible), or employ some other equivalent means to prevent spills and leaks.

E.M.1.2 Employee Training. If applicable to your facility, address the following areas (at a minimum) in your employee training program: proper handling (collection, storage, and disposal) of oil, used mineral spirits, anti-freeze, mercury switches, and solvents.

E.M.1.3 Management of Runoff. Consider the following management practices: berms or drainage ditches on the property line (to help prevent run-on from neighboring properties); berms for uncovered outdoor storage of oily parts, engine blocks, and above-ground liquid storage; installation of detention ponds; and installation of filtering devices and oil and water separators.

E.M.2 Additional SWPCP Requirements.

E.M.2.1 Drainage Area Site Map. Identify locations used for dismantling, storage, and maintenance of used motor vehicle parts. Also identify where any of the following may be exposed to precipitation or surface runoff: dismantling areas, parts (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers) storage areas, and liquid storage tanks and drums for fuel and other fluids.

E.M.2.2 Potential Pollutant Sources. Assess the potential for the following to contribute pollutants to stormwater discharges: vehicle storage areas, dismantling areas, parts storage areas (e.g., engine blocks, tires, hub caps, batteries, hoods, mufflers), and fueling stations.

E.M.3 Additional Inspection Requirements. Immediately (or as soon thereafter as feasible) inspect vehicles arriving at the site for leaks. Inspect monthly for signs of leakage all equipment containing oily parts, hydraulic fluids, any other types of fluids, or mercury switches. Also, inspect monthly for signs of leakage all vessels and areas where hazardous materials and general automotive fluids are stored, including, but not limited to, mercury switches, brake fluid, transmission fluid, radiator water, and antifreeze.

E.M.4 Sector-Specific Benchmarks.

Table E.M-1 identifies benchmarks that apply to the specific subsectors of Sector M. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.M-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector M1. Automobile Salvage Yards (SIC 5015)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart N – Sector N – Scrap Recycling and Waste Recycling Facilities.

E.N.1 Additional Technology-Based Effluent Limits.

E.N.1.1 Scrap and Waste Recycling Facilities (Non-Source Separated, Nonliquid Recyclable Materials). Requirements for facilities that receive, process, and do wholesale distribution of nonliquid recyclable wastes (e.g., ferrous and nonferrous metals, plastics, glass, cardboard, and paper). These facilities may receive both nonrecyclable and recyclable materials. This section is not intended for those facilities that accept recyclables only from primarily non-industrial and residential sources.

E.N.1.1.1 Inbound Recyclable and Waste Material Control Program. Minimize the chance of accepting materials that could be significant sources of pollutants by conducting inspections of inbound recyclables and waste materials. Following are some control measure options: (a) provide information and education to suppliers of scrap and recyclable waste materials on draining and properly disposing of residual fluids (e.g., from vehicles and equipment engines, radiators and transmissions, oil filled transformers, and individual containers or drums) and removal of mercury switches from vehicles before delivery to your facility; (b) establish procedures to minimize the potential of any residual fluids from coming into contact with precipitation or runoff; (c) establish procedures for accepting scrap lead-acid batteries (additional requirements for the handling, storage, and disposal or recycling of batteries are contained in the scrap lead-acid battery program provisions in Schedule E.N.3.2.6); (d) provide training targeted for those personnel engaged in the inspection and acceptance of inbound recyclable materials; and (e) establish procedures to ensure that liquid wastes, including used oil, are stored in materially compatible and non-leaking containers and are disposed of or recycled in accordance with the Resource Conservation and Recovery Act (RCRA).

E.N.1.1.2 Scrap and Waste Material Stockpiles and Storage (Outdoor). Minimize contact of stormwater runoff with stockpiled materials, processed materials, and nonrecyclable wastes. Following are some control measure options: (a) permanent or semi-permanent covers; (b) sediment traps, vegetated swales and strips, catch basin filters, and sand filters to facilitate settling or filtering of pollutants; (c) dikes, berms, containment trenches, culverts, and surface grading to divert runoff from storage areas; (d) silt fencing; and (e) oil and water separators, sumps, and dry absorbents for areas where potential sources of residual fluids are stockpiled (e.g., automobile engine storage areas).

E.N.1.1.3 Stockpiling of Turnings Exposed to Cutting Fluids (Outdoor Storage). Minimize contact of surface runoff with residual cutting fluids by: (a) storing all turnings exposed to cutting fluids under some form of permanent or semi-permanent cover, or (b) establishing dedicated containment areas for all turnings that have been exposed to cutting fluids. Any containment areas must be constructed of concrete, asphalt, or other equivalent types of impermeable material and include a barrier (e.g., berms, curbing, elevated pads) to prevent contact with stormwater run-on. Stormwater runoff from these areas can be discharged, provided that any runoff is first collected and treated by an oil and water separator or its equivalent. You must regularly maintain the oil and water separator (or its equivalent) and properly dispose of or recycle collected residual fluids.

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E.N.1.1.4 Scrap and Waste Material Stockpiles and Storage (Covered or Indoor Storage). Minimize contact of residual liquids and particulate matter from materials stored indoors or under cover with surface runoff. Following are some control measure options: (a) good housekeeping measures, including the use of dry absorbents or wet vacuuming to contain, dispose of, or recycle residual liquids originating from recyclable containers, or mercury spill kits for spills from storage of mercury switches; (b) not allowing washwater from tipping floors or other processing areas to discharge to the storm sewer system; and (c) disconnecting or sealing off all floor drains connected to the storm sewer system.

E.N.1.1.5 Scrap and Recyclable Waste Processing Areas. Minimize surface runoff from coming in contact with scrap processing equipment. Pay attention to operations that generate visible amounts of particulate residue (e.g., shredding) to minimize the contact of accumulated particulate matter and residual fluids with runoff (i.e., through good housekeeping, preventive maintenance, etc.). Following are some control measure options: (a) regularly inspect equipment for spills or leaks and malfunctioning, worn, or corroded parts or equipment; (b) establish a preventive maintenance program for processing equipment; (c) use dry-absorbents or other cleanup practices to collect and dispose of or recycle spilled or leaking fluids or use mercury spill kits for spills from storage of mercury switches; (d) on unattended hydraulic reservoirs over 150 gallons in capacity, install protection devices such as low-level alarms or equivalent devices, or secondary containment that can hold the entire volume of the reservoir; (e) containment or diversion structures such as dikes, berms, culverts, trenches, elevated concrete pads, and grading to minimize contact of stormwater runoff with outdoor processing equipment or stored materials; (f) oil and water separators or sumps; (g) permanent or semi-permanent covers in processing areas where there are residual fluids and grease; (h) retention or detention ponds or basins; sediment traps, and vegetated swales or strips (for pollutant settling and filtration); (i) catch basin filters or sand filters.

E.N.1.1.6 Scrap Lead-Acid Battery Program. Properly handle, store, and dispose of scrap lead-acid batteries. Following are some control measure options (a) segregate scrap lead-acid batteries from other scrap materials; (b) properly handle, store, and dispose of cracked or broken batteries; (c) collect and dispose of leaking lead-acid battery fluid; (d) minimize or eliminate (if possible) exposure of scrap lead-acid batteries to precipitation or runoff; and (e) provide employee training for the management of scrap batteries.

E.N.1.1.7 Spill Prevention and Response Procedures. (See also Schedule A.1.h) Install alarms and/or pump shutoff systems on outdoor equipment with hydraulic reservoirs exceeding 150 gallons in the event of a line break. Alternatively, a secondary containment system capable of holding the entire contents of the reservoir plus room for precipitation can be used. Use a mercury spill kit for any release of mercury from switches, anti-lock brake systems, and switch storage areas.

E.N.1.1.8 Supplier Notification Program. As appropriate, notify major suppliers which scrap materials will not be accepted at the facility or will be accepted only under certain conditions.

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E.N.1.2 Waste Recycling Facilities (Liquid Recyclable Materials).

E.N.1.2.1 Waste Material Storage (Indoor). Minimize or eliminate contact between residual liquids from waste materials stored indoors and from surface runoff. The plan may refer to applicable portions of other existing plans, such as Spill Prevention, Control, and Countermeasure (SPCC) plans required under 40 CFR Part 112. Following are some control measure options (a) procedures for material handling (including labeling and marking); (b) clean up spills and leaks with dry absorbent materials, a wet vacuum system; (c) appropriate containment structures (trenching, curbing, gutters, etc.); and (d) a drainage system, including appurtenances (e.g., pumps or ejectors, manually operated valves), to handle discharges from diked or bermed areas. Drainage should be discharged to an appropriate treatment facility or sanitary sewer system, or otherwise disposed of properly. These discharges may require coverage under a separate NPDES wastewater permit or industrial user permit under the pretreatment program.

E.N.1.2.2 Waste Material Storage (Outdoor). Minimize contact between stored residual liquids and precipitation or runoff. The plan may refer to applicable portions of other existing plans, such as SPCC plans required under 40 CFR Part 112. Discharges of precipitation from containment areas containing used oil must also be in accordance with applicable sections of 40 CFR Part 112. Following are some control measure options (a) appropriate containment structures (e.g., dikes, berms, curbing, pits) to store the volume of the largest tank, with sufficient extra capacity for precipitation; (b) drainage control and other diversionary structures; (c) corrosion protection and/or leak detection systems for storage tanks; and (d) dry-absorbent materials or a wet vacuum system to collect spills.

E.N.1.2.3 Trucks and Rail Car Waste Transfer Areas. Minimize pollutants in discharges from truck and rail car loading and unloading areas. Include measures to clean up minor spills and leaks resulting from the transfer of liquid wastes. Following are two control measure options: (a) containment and diversionary structures to minimize contact with precipitation or runoff, and (b) dry clean-up methods, wet vacuuming, roof coverings, or runoff controls.

E.N.1.3 Recycling Facilities (Source-Separated Materials). The following identifies considerations for facilities that receive only source-separated recyclables, primarily from non-industrial and residential sources.

E.N.1.3.1 Inbound Recyclable Material Control. Minimize the chance of accepting nonrecyclables (e.g., hazardous materials) that could be a significant source of pollutants by conducting inspections of inbound materials. Following are some control measure options: (a) providing information and education measures to inform suppliers of recyclables about acceptable and non-acceptable materials, (b) training drivers responsible for pickup of recycled material, (c) clearly marking public drop-off containers regarding which materials can be accepted, (d) rejecting nonrecyclable wastes or household hazardous wastes at the source, and (e) establishing procedures for handling and disposal of nonrecyclable material.

E.N.1.3.2 Outdoor Storage. Minimize exposure of recyclables to precipitation and runoff. Use good housekeeping measures to prevent accumulation of particulate matter and fluids, particularly in high traffic areas. Following are some control measure options (a) provide totally enclosed drop-off containers for the public; (b) install a sump and

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pump with each container pit and treat or discharge collected fluids to a sanitary sewer system; (c) provide dikes and curbs for secondary containment (e.g., around bales of recyclable waste paper); (d) divert surface water runoff away from outside material storage areas; (e) provide covers over containment bins, dumpsters, and roll-off boxes; and (f) store the equivalent of one day's volume of recyclable material indoors.

E.N.1.3.3 Indoor Storage and Material Processing. Minimize the release of pollutants from indoor storage and processing areas. Following are some control measure options (a) schedule routine good housekeeping measures for all storage and processing areas, (b) prohibit tipping floor washwater from draining to the storm sewer system, and (c) provide employee training on pollution prevention practices.

E.N.1.3.4 Vehicle and Equipment Maintenance. Following are some control measure options for areas where vehicle and equipment maintenance occur outdoors (a) prohibit vehicle and equipment washwater from discharging to the storm sewer system, (b) minimize or eliminate outdoor maintenance areas whenever possible, (c) establish spill prevention and clean-up procedures in fueling areas, (d) avoid topping off fuel tanks, (e) divert runoff from fueling areas, (f) store lubricants and hydraulic fluids indoors, and (g) provide employee training on proper handling and storage of hydraulic fluids and lubricants.

E.N.2 Additional SWPCP Requirements.

E.N.2.1 Drainage Area Site Map. Document in your SWPCP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: scrap and waste material storage, outdoor scrap and waste processing equipment; and containment areas for turnings exposed to cutting fluids.

E.N.2.2 Maintenance Schedules/Procedures for Collection, Handling, and Disposal or Recycling of Residual Fluids at Scrap and Waste Recycling Facilities. If you are subject to Schedule E.N.3.1.3, your SWPCP must identify any applicable maintenance schedule and the procedures to collect, handle, and dispose of or recycle residual fluids.

E.N.3 Sector-Specific Benchmarks.

Table E.N-1 identifies benchmarks that apply to the specific subsectors of Sector N. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.N-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector N1. Scrap Recycling and Waste Recycling Facilities except Source-Separated Recycling (SIC 5093)	Chemical Oxygen Demand (COD)	120 mg/L
	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart O – Sector O – Steam Electric Generating Facilities.

E.O.1 Additional Technology-Based Effluent Limits. The following good housekeeping measures are required in addition to Schedule A.4 of permit:

E.O.1.1 Fugitive Dust Emissions. Minimize fugitive dust emissions from coal handling areas. To minimize the tracking of coal dust offsite, consider procedures such as installing specially designed tires or washing vehicles in a designated area before they leave the site and controlling the wash water.

E.O.1.2 Delivery Vehicles. Minimize contamination of stormwater runoff from delivery vehicles arriving at the plant site. Consider procedures to inspect delivery vehicles arriving at the plant site and ensure overall integrity of the body or container and procedures to deal with leakage or spillage from vehicles or containers.

E.O.1.3 Fuel Oil Unloading Areas. Minimize contamination of precipitation or surface runoff from fuel oil unloading areas. Consider using containment curbs in unloading areas, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and using spill and overflow protection devices (e.g., drip pans, drip diapers, or other containment devices placed beneath fuel oil connectors to contain potential spillage during deliveries or from leaks at the connectors).

E.O.1.4 Chemical Loading and Unloading. Minimize contamination of precipitation or surface runoff from chemical loading and unloading areas. Consider using containment curbs at chemical loading and unloading areas to contain spills, having personnel familiar with spill prevention and response procedures present during deliveries to ensure that any leaks or spills are immediately contained and cleaned up, and loading and unloading in covered areas and storing chemicals indoors.

E.O.1.5 Miscellaneous Loading and Unloading Areas. Minimize contamination of precipitation or surface runoff from loading and unloading areas. Consider covering the loading area; grading, berming, or curbing around the loading area to divert run-on; locating the loading and unloading equipment and vehicles so that leaks are contained in existing containment and flow diversion systems; or equivalent procedures.

E.O.1.6 Liquid Storage Tanks. Minimize contamination of surface runoff from above-ground liquid storage tanks. Consider protective guards around tanks, containment curbs, spill and overflow protection, dry cleanup methods, or equivalent measures.

E.O.1.7 Large Bulk Fuel Storage Tanks. Minimize contamination of surface runoff from large bulk fuel storage tanks. Consider containment berms (or their equivalent). You must also comply with applicable State and Federal laws, including Spill Prevention, Control and Countermeasure (SPCC) Plan requirements.

E.O.1.8 Spill Reduction Measures. Minimize the potential for an oil or chemical spill, or reference the appropriate part of your SPCC plan. Visually inspect as part of your routine facility inspection the structural integrity of all above-ground tanks, pipelines, pumps, and related equipment that may be exposed to stormwater, and make any necessary repairs immediately.

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E.O.1.9 Oil-Bearing Equipment in Switchyards. Minimize contamination of surface runoff from oil-bearing equipment in switchyard areas. Consider using level grades and gravel surfaces to retard flows and limit the spread of spills, or collecting runoff in perimeter ditches.

E.O.1.10 Residue-Hauling Vehicles. Inspect all residue-hauling vehicles for proper covering over the load, adequate gate sealing, and overall integrity of the container body. Repair vehicles without load covering or adequate gate sealing, or with leaking containers or beds.

E.O.1.11 Ash Loading Areas. Reduce or control the tracking of ash and residue from ash loading areas. Clear the ash building floor and immediately adjacent roadways of spillage, debris, and excess water before departure of each loaded vehicle.

E.O.1.12 Areas Adjacent to Disposal Ponds or Landfills. Minimize contamination of surface runoff from areas adjacent to disposal ponds or landfills. Reduce ash residue that may be tracked on to access roads traveled by residue handling vehicles, and reduce ash residue on exit roads leading into and out of residue handling areas.

E.O.1.13 Landfills, Scrap yards, Surface Impoundments, Open Dumps, General Refuse Sites. Minimize the potential for contamination of runoff from these areas.

E.O.2 Additional SWPCP Requirements.

E.O.2.1 Drainage Area Site Map. Document in your SWPCP the locations of any of the following activities or sources that may be exposed to precipitation or surface runoff: storage tanks, scrap yards, and general refuse areas; short- and long-term storage of general materials (including but not limited to supplies, construction materials, paint equipment, oils, fuels, used and unused solvents, cleaning materials, paint, water treatment chemicals, fertilizer, and pesticides); landfills and construction sites; and stock pile areas (e.g., coal or limestone piles).

E.O.3 Additional Inspection Requirements.

E.O.3.1 Inspection. Inspect the following areas monthly: coal handling areas, loading or unloading areas, switchyards, fueling areas, bulk storage areas, ash handling areas, areas adjacent to disposal ponds and landfills, maintenance areas, liquid storage tanks, and long term and short term material storage areas.

E.O.4 Sector-Specific Benchmarks

Table E.O-1 identifies benchmarks that apply to the specific subsectors of Sector O. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities.

Table E.O-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector O1. Steam Electric Generating Facilities (Industrial Activity Code "SE")	Total Iron	1.0 mg/L

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E.O.5 Effluent Limitations Based on Effluent Limitations Guidelines

Table E.O-2 identifies effluent limits that apply to the industrial activities described below. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

Table E.O-2[1]

Industrial Activity	Parameter	Effluent Limit
Discharges from coal storage piles at Steam Electric Generating Facilities	TSS	50 mg/l[2]
	pH	6.0 min - 9.0 max

[1] Monitor annually.

[2] If your facility is designed, constructed, and operated to treat the volume of coal pile runoff that is associated with a 10-year, 24-hour rainfall event, any untreated overflow of coal pile runoff from the treatment unit is not subject to the 50 mg/L limitation for total suspended solids.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart P – Sector P – Land Transportation and Warehousing.

E.P.3 Additional Technology-Based Effluent Limits.

E.P.1.1 Good Housekeeping Measures. In addition to the Good Housekeeping requirements in Schedule A.4 of the permit, you must do the following:

E.P.1.1.1 Vehicle and Equipment Storage Areas. Minimize the potential for stormwater exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Consider the following (or other equivalent measures): use of drip pans under vehicles/equipment, indoor storage of vehicles and equipment, installation of berms or dikes, use of absorbents, roofing or covering storage areas, and cleaning pavement surfaces to remove oil and grease.

E.P.1.1.2 Fueling Areas. Minimize contamination of stormwater runoff from fueling areas. Consider the following (or other equivalent measures): Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing stormwater run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.

E.P.1.1.3 Material Storage Areas. Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.). Consider the following (or other equivalent measures): storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of stormwater to the areas; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.

E.P.1.1.4 Vehicle and Equipment Cleaning Areas. Minimize contamination of stormwater runoff from all areas used for vehicle/equipment cleaning. Consider the following (or other equivalent measures): performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system); treating and/or recycling collected washwater, or other equivalent measures.

E.P.1.1.5 Vehicle and Equipment Maintenance Areas. Minimize contamination of stormwater runoff from all areas used for vehicle/equipment maintenance. Consider the following (or other equivalent measures): performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; using dry cleanup methods; treating and/or recycling collected stormwater runoff, minimizing run on/runoff of stormwater to maintenance areas.

E.P.1.1.6 Locomotive Sanding (Loading Sand for Traction) Areas. Consider the following (or other equivalent measures): covering sanding areas; minimizing stormwater run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by stormwater.

E.P.1.2 Employee Training. Address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

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E.P.2 Additional SWPCP Requirements.

E.P.2.1 Drainage Area Site Map. Identify in the SWPCP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: Fueling stations; vehicle/equipment maintenance or cleaning areas; storage areas for vehicle/equipment with actual or potential fluid leaks; loading/unloading areas; areas where treatment, storage or disposal of wastes occur; liquid storage tanks; processing areas; and storage areas.

E.P.2.2 Potential Pollutant Sources. Assess the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: Onsite waste storage or disposal; dirt/gravel parking areas for vehicles awaiting maintenance; illicit plumbing connections between shop floor drains and the stormwater conveyance system(s); and fueling areas. Describe these activities in the SWPCP.

E.P.3 Additional Inspection Requirements. Inspect all the following areas/activities: storage areas for vehicles/equipment awaiting maintenance, fueling areas, indoor and outdoor vehicle/equipment maintenance areas, material storage areas, vehicle/equipment cleaning areas and loading/unloading areas.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart Q – Sector Q – Water Transportation.

E.Q.1 Additional Technology-Based Effluent Limits.

E.Q.1.1 Good Housekeeping Measures. You must implement the following good housekeeping measures in addition to requirements in Schedule A.1 of the permit:

E.Q.1.1.1 Pressure Washing Area. Collect or contain the discharges from the pressures washing area so that they are not co-mingled with stormwater discharges authorized by this permit.

E.Q.1.1.2 Blasting and Painting Area. Minimize the potential for spent abrasives, paint chips, and overspray to discharge into receiving waters or the storm sewer systems. Consider containing all blasting and painting activities or use other measures to minimize the discharge of contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.

E.Q.1.1.3 Material Storage Areas. Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. Specify which materials are stored indoors, and consider containment or enclosure for those stored outdoors. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

E.Q.1.1.4 Engine Maintenance and Repair Areas. Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the maintenance area.

E.Q.1.1.5 Material Handling Area. Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing runoff of stormwater to material handling areas.

E.Q.1.1.6 Drydock Activities. Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Address the cleaning of accessible areas of the drydock prior to flooding, and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, and fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding and making absorbent materials and oil containment booms readily available to clean up or contain any spills.

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E.Q.1.2 Employee Training. At a minimum, address the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

E.Q.1.3 Preventive Maintenance. As part of your preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

E.Q.2 Additional SWPCP Requirements.

E.Q.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance and repair; vessel maintenance and repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; locations used for the treatment, storage, or disposal of wastes; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

E.Q.2.2 Summary of Potential Pollutant Sources. Document in the SWPCP the following additional sources and activities that have potential pollutants associated with them: outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting.)

E.Q.3 Additional Inspection Requirements.

Inspect pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

E.Q.4 Sector-Specific Benchmarks.

Table E.Q-1 identifies benchmarks that apply to the specific subsectors of Sector Q. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.Q-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector Q1. Water Transportation Facilities (SIC 4412-4499)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart R – Sector R – Ship and Boat Building and Repair Yards.

E.R.1 Additional Technology-Based Effluent Limits.

E.R.1.1 Good Housekeeping Measures.

E.R.1.1.1 Pressure Washing Area. If pressure washing is used to remove marine growth from vessels, the discharged water must be permitted as a process wastewater by a separate NPDES permit.

E.R.1.1.2 Blasting and Painting Area. Minimize the potential for spent abrasives, paint chips, and overspray to discharging into the receiving water or the storm sewer systems. Consider containing all blasting and painting activities, or use other measures to prevent the discharge of the contaminants (e.g., hanging plastic barriers or tarpaulins during blasting or painting operations to contain debris). When necessary, regularly clean stormwater conveyances of deposits of abrasive blasting debris and paint chips.

E.R.1.1.3 Material Storage Areas. Store and plainly label all containerized materials (e.g., fuels, paints, solvents, waste oil, antifreeze, batteries) in a protected, secure location away from drains. Minimize the contamination of precipitation or surface runoff from the storage areas. If abrasive blasting is performed, discuss the storage and disposal of spent abrasive materials generated at the facility. Consider implementing an inventory control plan to limit the presence of potentially hazardous materials onsite.

E.R.1.1.4 Engine Maintenance and Repair Areas. Minimize the contamination of precipitation or surface runoff from all areas used for engine maintenance and repair. Consider the following (or their equivalents): performing all maintenance activities indoors, maintaining an organized inventory of materials used in the shop, draining all parts of fluid prior to disposal, prohibiting the practice of hosing down the shop floor, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the maintenance area.

E.R.1.1.5 Material Handling Area. Minimize the contamination of precipitation or surface runoff from material handling operations and areas (e.g., fueling, paint and solvent mixing, disposal of process wastewater streams from vessels). Consider the following (or their equivalents): covering fueling areas, using spill and overflow protection, mixing paints and solvents in a designated area (preferably indoors or under a shed), and minimizing stormwater run-on to material handling areas.

E.R.1.1.6 Drydock Activities. Routinely maintain and clean the drydock to minimize pollutants in stormwater runoff. Clean accessible areas of the drydock prior to flooding and final cleanup following removal of the vessel and raising the dock. Include procedures for cleaning up oil, grease, or fuel spills occurring on the drydock. Consider the following (or their equivalents): sweeping rather than hosing off debris and spent blasting material from accessible areas of the drydock prior to flooding, and having absorbent materials and oil containment booms readily available to clean up and contain any spills.

E.R.1.2 Employee Training. As part of your employee training program, address, at a minimum, the following activities (as applicable): used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling

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procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.

E.R.1.3 Preventive Maintenance. As part of your preventive maintenance program, perform timely inspection and maintenance of stormwater management devices (e.g., cleaning oil and water separators and sediment traps to ensure that spent abrasives, paint chips, and solids will be intercepted and retained prior to entering the storm drainage system), as well as inspecting and testing facility equipment and systems to uncover conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters.

E.R.2 Additional SWPCP Requirements.

E.R.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: fueling; engine maintenance or repair; vessel maintenance or repair; pressure washing; painting; sanding; blasting; welding; metal fabrication; loading and unloading areas; treatment, storage, and waste disposal areas; liquid storage tanks; liquid storage areas (e.g., paint, solvents, resins); and material storage areas (e.g., blasting media, aluminum, steel, scrap iron).

E.R.2.2 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them (if applicable): outdoor manufacturing or processing activities (e.g., welding, metal fabricating) and significant dust or particulate generating processes (e.g., abrasive blasting, sanding, and painting).

E.R.2.3 Documentation of Good Housekeeping Measures. Document in your SWPCP any good housekeeping measures implemented to meet the effluent limits in Schedule E.R.1.1.

E.R.2.3.1 Blasting and Painting Areas. Document in the SWPCP any standard operating practices relating to blasting and painting (e.g., prohibiting uncontained blasting and painting over open water or prohibiting blasting and painting during windy conditions, which can render containment ineffective).

E.R.2.3.2 Storage Areas. Specify in your SWPCP which materials are stored indoors, and consider containment or enclosure for those stored outdoors.

E.R.3 Additional Inspection Requirements.

Include the following in all monthly inspections: pressure washing area; blasting, sanding, and painting areas; material storage areas; engine maintenance and repair areas; material handling areas; drydock area; and general yard area.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart S – Sector S – Air Transportation.

E.S.1 Additional Technology-Based Effluent Limits.

E.S.1.1 Good Housekeeping Measures.

E.S.1.1.1 Aircraft, Ground Vehicle and Equipment Maintenance Areas. Minimize the contamination of stormwater runoff from all areas used for aircraft, ground vehicle and equipment maintenance (including the maintenance conducted on the terminal apron and in dedicated hangers). Consider the following practices (or their equivalents): performing maintenance activities indoors; maintaining an organized inventory of material used in the maintenance areas; draining all parts of fluids prior to disposal; prohibiting the practice of hosing down the apron or hanger floor; using dry cleanup methods; and collecting the stormwater runoff from the maintenance area and providing treatment or recycling.

E.S.1.1.2 Aircraft, Ground Vehicle and Equipment Cleaning Areas. Clearly demarcate these areas on the ground using signage or other appropriate means. Minimize the contamination of stormwater runoff from cleaning areas.

E.S.1.1.3 Aircraft, Ground Vehicle and Equipment Storage Areas. Store all aircraft, ground vehicles and equipment awaiting maintenance in designated areas only and minimize the contamination of stormwater runoff from these storage areas. Consider the following control measures, including any BMPs (or their equivalents): storing aircraft and ground vehicles indoors; using drip pans for the collection of fluid leaks; and perimeter drains, dikes or berms surrounding the storage areas.

E.S.1.1.4 Material Storage Areas. Maintain the vessels of stored materials (e.g., used oils, hydraulic fluids, spent solvents, and waste aircraft fuel) in good condition, to prevent or minimize contamination of stormwater. Also plainly label the vessels (e.g., "used oil," "Contaminated Jet A," etc.). Minimize contamination of precipitation/runoff from these areas. Consider the following control measures (or their equivalents): storing materials indoors; storing waste materials in a centralized location; and installing berms/dikes around storage areas.

E.S.1.1.5 Airport Fuel System and Fueling Areas. Minimize the discharge of fuel to the storm sewer/surface waters resulting from fuel servicing activities or other operations conducted in support of the airport fuel system. Consider the following control measures (or their equivalents): implementing spill and overflow practices (e.g., placing absorptive materials beneath aircraft during fueling operations); using only dry cleanup methods; and collecting stormwater runoff.

E.S.1.1.6 Source Reduction. Minimize, and where feasible eliminate, the use of urea and glycol-based deicing chemicals, in order to reduce the aggregate amount of deicing chemicals used and/or lessen the environmental impact. Chemical options to replace ethylene glycol, propylene glycol and urea include: potassium acetate; magnesium acetate; calcium acetate; and anhydrous sodium acetate.

E.S.1.1.6.1 Runway Deicing Operation: Minimize contamination of stormwater runoff from runways as a result of deicing operations. Evaluate whether over-application of deicing chemicals occurs by analyzing application rates, and adjust as necessary, consistent with considerations of flight

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safety. Also consider these control measure options (or their equivalents): metered application of chemicals; pre-wetting dry chemical constituents prior to application; installing a runway ice detection system; implementing anti-icing operations as a preventive measure against ice buildup.

E.S.1.1.6.2 Aircraft Deicing Operations. Minimize contamination of stormwater runoff from aircraft deicing operations. Determine whether excessive application of deicing chemicals occurs and adjust as necessary, consistent with considerations of flight safety. This evaluation should be carried out by the personnel most familiar with the particular aircraft and flight operations in question (versus an outside entity such as the airport authority). Consider using alternative deicing/anti-icing agents as well as containment measures for all applied chemicals. Also consider these control measure options (or their equivalents) for reducing deicing fluid use: forced-air deicing systems, computer-controlled fixed-gantry systems, infrared technology, hot water, varying glycol content to air temperature, enclosed-basket deicing trucks, mechanical methods, solar radiation, hangar storage, aircraft covers, and thermal blankets for MD-E0s and DC-9s. Also consider using ice-detection systems and airport traffic flow strategies and departure slot allocation systems.

E.S.1.1.7 Management of Runoff. Where deicing operations occur, implement a program to control or manage contaminated runoff to minimize the amount of pollutants being discharged from the site. Consider these control measure options (or their equivalents): a dedicated deicing facility with a runoff collection/ recovery system; using vacuum/collection trucks; storing contaminated stormwater/deicing fluids in tanks and releasing controlled amounts to a publicly owned treatment works; collecting contaminated runoff in a wet pond for biochemical decomposition (be aware of attracting wildlife that may prove hazardous to flight operations); and directing runoff into vegetative swales or other infiltration measures. Also consider recovering deicing materials when these materials are applied during non-precipitation events (e.g., covering storm sewer inlets, using booms, installing absorptive interceptors in the drains, etc.) to prevent these materials from later becoming a source of stormwater contamination. Used deicing fluid should be recycled whenever possible.

E.S.1.2 Deicing Season. You must determine the seasonal timeframe (e.g., December- February, October - March, etc.) during which deicing activities typically occur at the facility. Implementation of control measures, including any BMPs, facility inspections and monitoring must be conducted with particular emphasis throughout the defined deicing season. If you meet the deicing chemical usage thresholds of 100,000 gallons glycol and/or 100 tons of urea, the deicing season you identified is the timeframe during which you must obtain the four required benchmark monitoring event results for deicing-related parameters, i.e., BOD, COD, ammonia and pH.

E.S.2 Additional SWPCP Requirements.

The airport authority and tenants of the airport are encouraged to work in partnership in the development of the SWPCP. Tenants of the airport facility include air passenger or cargo companies, fixed based operators and other parties who have contracts with the airport authority to conduct business operations on airport property and whose operations result in stormwater discharges associated with industrial

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activity. An airport tenant may obtain authorization under this permit and develop a SWPCP for discharges from his/her own areas of the airport.

E.S.2.1 Drainage Area Site Map. Document in the SWPCP the following areas of the facility and indicate whether activities occurring there may be exposed to precipitation/surface runoff: aircraft and runway deicing operations; fueling stations; aircraft, ground vehicle and equipment maintenance/cleaning areas; storage areas for aircraft, ground vehicles and equipment awaiting maintenance.

E.S.2.2 Potential Pollutant Sources. In your inventory of exposed materials, describe in your SWPCP the potential for the following activities and facility areas to contribute pollutants to stormwater discharges: aircraft, runway, ground vehicle and equipment maintenance and cleaning; aircraft and runway deicing operations (including apron and centralized aircraft deicing stations, runways, taxiways and ramps). If you use deicing chemicals, you must maintain a record of the types (including the Material Safety Data Sheets [MSDS]) used and the monthly quantities, either as measured or, in the absence of metering, as estimated to the best of your knowledge. This includes all deicing chemicals, not just glycols and urea (e.g., potassium acetate), because large quantities of these other chemicals can still have an adverse impact on receiving waters. Tenants or other fixed-based operations that conduct deicing operations must provide the above information to the airport authority for inclusion with any comprehensive airport SWPCPs.

E.S.2.3 Vehicle and Equipment Washwater Requirements. Attach to or reference in your SWPCP, a copy of the NPDES permit issued for vehicle/equipment washwater or, if an NPDES permit has not been issued, a copy of the pending application. If an industrial user permit is issued under a local pretreatment program, include a copy in your SWPCP. In any case, if you are subject to another permit, describe your control measures for implementing all non-stormwater discharge permit conditions or pretreatment requirements in your SWPCP. If washwater is handled in another manner (e.g., hauled offsite, retained onsite), describe the disposal method and attach all pertinent documentation/information (e.g., frequency, volume, destination, etc.) in your SWPCP.

E.S.2.4 Documentation of Control Measures Used for Management of Runoff: Document in your SWPCP the control measures used for collecting or containing contaminated melt water from collection areas used for disposal of contaminated snow.

E.S.3 Sector-Specific Benchmarks.

Table E.S-1 identifies benchmarks that apply to the specific subsectors of Sector S. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, unless a facility has an Individual NPDES Permit for de-icing activities.

Table E.S-1.

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Where a single permittee, or a combination of permitted facilities, use more than 100,000 gallons of glycol-based deicing chemicals and/or 100 tons or more of urea on an average annual basis, monitor these parameters in outfalls that collect runoff from areas where deicing activities occur (SIC 4512-4581) and when deicing activities are occurring.	Biochemical Oxygen Demand (BOD_5)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Ammonia	2.14 mg/L
	pH	5.5 - 9.0 s.u.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart T – Sector T – Treatment Works.

E.T.1 Additional Technology-Based Effluent Limits.

E.T.1.1 Control Measures. In addition to the other control measures, consider the following: routing stormwater to the treatment works; or covering exposed materials (i.e., from the following areas: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station).

E.T.1.2 Employee Training. At a minimum, training must address the following areas when applicable to a facility: petroleum product management; process chemical management; spill prevention and controls; fueling procedures; general good housekeeping practices; and proper procedures for using fertilizer, herbicides, and pesticides.

E.T.2 Additional SWPCP Requirements.

E.T.2.1 Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and storage areas for process chemicals, petroleum products, solvents, fertilizers, herbicides, and pesticides.

E.T.2.2 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them, as applicable: grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; septage or hauled waste receiving station; and access roads and rail lines.

E.T.3 Additional Inspection Requirements.

Include the following areas in all inspections: access roads and rail lines; grit, screenings, and other solids handling, storage, or disposal areas; sludge drying beds; dried sludge piles; compost piles; and septage or hauled waste receiving station.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart U – Sector U – Food and Kindred Products.

E.U.1 Additional Technology-Based Limitations.

E.U.1.1 Employee Training. Address pest control in your employee training program.

E.U.2 Additional SWPCP Requirements.

E.U.2.1 Drainage Area Site Map. Document in your SWPCP the locations of the following activities if they are exposed to precipitation or runoff: vents and stacks from cooking, drying, and similar operations; dry product vacuum transfer lines; animal holding pens; spoiled product; and broken product container storage areas.

E.U.2.2 Potential Pollutant Sources. Document in your SWPCP, in addition to food and kindred products processing-related industrial activities, application and storage of pest control chemicals (e.g., rodenticides, insecticides, fungicides) used on plant grounds.

E.U.3 Additional Inspection Requirements.

Inspect on a monthly basis, at a minimum, the following areas where the potential for exposure to stormwater exists: loading and unloading areas for all significant materials; storage areas, including associated containment areas; waste management units; vents and stacks emanating from industrial activities; spoiled product and broken product container holding areas; animal holding pens; staging areas; and air pollution control equipment.

E.U.4 Sector-Specific Benchmarks.

Table E.U-1 identifies benchmarks that apply to the specific subsectors of Sector U. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.U-1.

Subsector (You may be subject to requirements for more than one Sector / Subsector)	**Parameter**	**Benchmark Monitoring Concentration**
Subsector U2. Fats and Oils Products (SIC 2074-2079)	Biochemical Oxygen Demand (BOD_5)	30 mg/L
	Chemical Oxygen Demand (COD)	120 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart V – Sector V – Textile Mills, Apparel, and Other Fabric Products.

E.V.1 Additional Technology-Based Limitations.

E.V.1.1 Good Housekeeping Measures.

E.V.1.1.1 Material Storage Areas. Plainly label and store all containerized materials (e.g., fuels, petroleum products, solvents, and dyes) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances. For storing empty chemical drums or containers, ensure that the drums and containers are clean (consider triple-rinsing) and that there is no contact of residuals with precipitation or runoff. Collect and dispose of washwater from these cleanings properly.

E.V.1.1.2 Material Handling Areas. Minimize contamination of stormwater runoff from material handling operations and areas. Consider the following (or their equivalents): use of spill and overflow protection; covering fueling areas; and covering or enclosing areas where the transfer of material may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals, dyes, or wastewater.

E.V.1.1.3 Fueling Areas. Minimize contamination of stormwater runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing run-on of stormwater to the fueling areas, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the fueling area.

E.V.1.1.4 Above-Ground Storage Tank Area. Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following (or their equivalents): regular cleanup of these areas; including measures for tanks, piping and valves explicitly in your SPCC program; minimizing runoff of stormwater from adjacent areas; restricting access to the area; inserting filters in adjacent catch basins; providing absorbent booms in unbermed fueling areas; using dry cleanup methods; and permanently sealing drains within critical areas that may discharge to a storm drain.

E.V.1.2 Employee Training. As part of your employee training program, address, at a minimum, the following activities (as applicable): use of reused and recycled waters, solvents management, proper disposal of dyes, proper disposal of petroleum products and spent lubricants, spill prevention and control, fueling procedures, and general good housekeeping practices.

E.V.2 Additional SWPCP Requirements.

E.V.2.1 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them: industry-specific significant materials and industrial activities (e.g., backwinding, beaming, bleaching, backing bonding, carbonizing, carding, cut and sew operations, desizing, drawing, dyeing locking, fulling, knitting, mercerizing, opening, packing, plying, scouring, slashing, spinning, synthetic-felt processing, textile waste processing, tufting, turning, weaving, web forming, winging, yarn spinning, and yarn texturing).

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E.V.2.2 Description of Good Housekeeping Measures for Material Storage Areas. Document in the SWPCP your containment area or enclosure for materials stored outdoors.

E.V.3 Additional Inspection Requirements.

Inspect, at least monthly, the following activities and areas (at a minimum): transfer and transmission lines, spill prevention, good housekeeping practices, management of process waste products, and all structural and nonstructural management practices.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart X – Sector X – Printing and Publishing.

E.X.1 Additional Technology-Based Effluent Limits.

E.X.1.1 Good Housekeeping Measures.

E.X.1.1.1 Material Storage Areas. Plainly label and store all containerized materials (e.g., skids, pallets, solvents, bulk inks, hazardous waste, empty drums, portable and mobile containers of plant debris, wood crates, steel racks, and fuel oil) in a protected area, away from drains. Minimize contamination of the stormwater runoff from such storage areas. Also consider an inventory control plan to prevent excessive purchasing of potentially hazardous substances.

E.X.1.1.2 Material Handling Area. Minimize contamination of stormwater runoff from material handling operations and areas (e.g., blanket wash, mixing solvents, loading and unloading materials). Consider the following (or their equivalents): using spill and overflow protection, covering fueling areas, and covering or enclosing areas where the transfer of materials may occur. When applicable, address the replacement or repair of leaking connections, valves, transfer lines, and pipes that may carry chemicals or wastewater.

E.X.1.1.3 Fueling Areas. Minimize contamination of stormwater runoff from fueling areas. Consider the following (or their equivalents): covering the fueling area, using spill and overflow protection, minimizing runoff of stormwater to the fueling areas, using dry cleanup methods, and treating and/or recycling stormwater runoff collected from the fueling area.

E.X.1.1.4 Above Ground Storage Tank Area. Minimize contamination of the stormwater runoff from above-ground storage tank areas, including the associated piping and valves. Consider the following (or their equivalents): regularly cleaning these areas, explicitly addressing tanks, piping and valves in the SPCC program, minimizing stormwater runoff from adjacent areas, restricting access to the area, inserting filters in adjacent catch basins, providing absorbent booms in unbermed fueling areas, using dry cleanup methods, and permanently sealing drains within critical areas that may discharge to a storm drain.

E.X.1.2 Employee Training. As part of your employee training program, address, at a minimum, the following activities (as applicable): spent solvent management, spill prevention and control, used oil management, fueling procedures, and general good housekeeping practices.

E.X.2 Additional SWPCP Requirements.

E.X.2.1 Description of Good Housekeeping Measures for Material Storage Areas. In connection with Schedule E.X.2.1.1, describe in the SWPCP the containment area or enclosure for materials stored outdoors.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart Y – Sector Y – Rubber, Miscellaneous Plastic Products, and Miscellaneous Manufacturing Industries.

E.Y.1 Additional Technology-Based Effluent Limits.

E.Y.1.1 Controls for Rubber Manufacturers. Minimize the discharge of zinc in your stormwater discharges. Following are some general control measure options to consider: using chemicals purchased in pre-weighed, sealed polyethylene bags; storing in-use materials in sealable containers, ensuring an airspace between the container and the cover to minimize "puffing" losses when the container is opened, and using automatic dispensing and weighing equipment.

E.Y.1.1.1 Zinc Bags. Ensure proper handling and storage of zinc bags at your facility. Following are some control measure options: employee training on the handling and storage of zinc bags, indoor storage of zinc bags, cleanup of zinc spills without washing the zinc into the storm drain, and the use of 2,500-pound sacks of zinc rather than 50- to 100-pound sacks.

E.Y.1.1.2 Dumpsters. Minimize discharges of zinc from dumpsters. Following are some control measure options: covering the dumpster, moving the dumpster indoors, or providing a lining for the dumpster.

E.Y.1.1.3 Dust Collectors and Baghouses. Minimize contributions of zinc to stormwater from dust collectors and baghouses. Replace or repair, as appropriate, improperly operating dust collectors and baghouses.

E.Y.1.1.4 Grinding Operations. Minimize contamination of stormwater as a result of dust generation from rubber grinding operations. One control measure option is to install a dust collection system.

E.Y.1.1.5 Zinc Stearate Coating Operations. Minimize the potential for stormwater contamination from drips and spills of zinc stearate slurry that may be released to the storm drain. One control measure option is to use alternative compounds to zinc stearate.

E.Y.1.2 Controls for Plastic Products Manufacturers. Minimize the discharge of plastic resin pellets in your stormwater discharges. Control measures to be considered for implementation (or their equivalents) include minimizing spills, cleaning up of spills promptly and thoroughly, sweeping thoroughly, pellet capturing, employee education, and disposal precautions.

E.Y.2 Additional SWPCP Requirements.

E.Y.2.1 Potential Pollutant Sources for Rubber Manufacturers. Document in your SWPCP the use of zinc at your facility and the possible pathways through which zinc may be discharged in stormwater runoff.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart Z – Sector Z – Leather Tanning and Finishing.

E.Z.1 Additional Technology-Based Effluent Limits.

E.Z.1.1 Good Housekeeping Measures.

E.Z.1.1.1 Storage Areas for Raw, Semiprocessed, or Finished Tannery By-products. Minimize contamination of stormwater runoff from pallets and bales of raw, semiprocessed, or finished tannery by-products (e.g., splits, trimmings, shavings). Consider indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Consider placing materials on an impermeable surface and enclosing or putting berms (or equivalent measures) around the area to prevent stormwater run-on and runoff.

E.Z.1.1.2 Material Storage Areas. Label storage containers of all materials (e.g., specific chemicals, hazardous materials, spent solvents, waste materials) minimize contact of such materials with stormwater.

E.Z.1.1.3 Buffing and Shaving Areas. Minimize contamination of stormwater runoff with leather dust from buffing and shaving areas. Consider dust collection enclosures, preventive inspection and maintenance programs, or other appropriate preventive measures.

E.Z.1.1.4 Receiving, Unloading, and Storage Areas. Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, consider the following (or their equivalents): covering all hides and chemical supplies, diverting drainage to the process sewer, or grade berming or curbing the area to prevent stormwater runoff.

E.Z.1.1.5 Outdoor Storage of Contaminated Equipment. Minimize contact of stormwater with contaminated equipment. Consider the following (or their equivalents): covering equipment, diverting drainage to the process sewer, and cleaning thoroughly prior to storage.

E.Z.1.1.6 Waste Management. Minimize contamination of stormwater runoff from waste storage areas. Consider the following (or their equivalents): covering dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, and minimizing stormwater runoff by enclosing the area or building berms around the area.

E.Z.2 Additional SWPCP Requirements.

E.Z.2.1 Drainage Area Site Map. Identify in your SWPCP where any of the following may be exposed to precipitation or surface runoff: processing and storage areas of the beamhouse, tanyard, and re-tan wet finishing and dry finishing operations.

E.Z.2.2 Potential Pollutant Sources. Document in your SWPCP the following sources and activities that have potential pollutants associated with them (as appropriate): temporary or permanent storage of fresh and brine-cured hides; extraneous hide substances and hair; leather dust, scraps, trimmings, and shavings.

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Schedule E – Sector-Specific Requirements for Industrial Activity

Subpart AA – Sector AA – Fabricated Metal Products

E.AA.1 Additional Technology-Based Effluent Limits.

E.AA.1.1 Good Housekeeping Measures.

E.AA.1.1.1 Raw Steel Handling Storage. Minimize the generation of and/or recover and properly manage scrap metals, fines, and iron dust. Include measures for containing materials within storage handling areas.

E.AA.1.1.2 Paints and Painting Equipment. Minimize exposure of paint and painting equipment to stormwater.

E.AA.1.2 Spill Prevention and Response Procedures. Ensure that the necessary equipment to implement a cleanup is available to personnel. The following areas should be addressed

E.AA.1.2.1 Metal Fabricating Areas. Maintain clean, dry, orderly conditions in these areas. Consider using dry clean-up techniques.

E.AA.1.2.2 Storage Areas for Raw Metal. Keep these areas free of conditions that could cause, or impede appropriate and timely response to, spills or leakage of materials. Consider the following (or their equivalents): maintaining storage areas so that there is easy access in the event of a spill, and labeling stored materials to aid in identifying spill contents.

E.AA.2.2.3 Metal Working Fluid Storage Areas. Minimize the potential for stormwater contamination from storage areas for metal working fluids.

E.AA.1.2.4 Cleaners and Rinse Water. Control and clean up spills of solvents and other liquid cleaners, control sand buildup and disbursement from sand-blasting operations, and prevent exposure of recyclable wastes. Substitute environmentally benign cleaners when possible.

E.AA.1.2.5 Lubricating Oil and Hydraulic Fluid Operations. Minimize the potential for stormwater contamination from lubricating oil and hydraulic fluid operations. Consider using monitoring equipment or other devices to detect and control leaks and overflows. Consider installing perimeter controls such as dikes, curbs, grass filter strips, or equivalent measures.

E.AA.1.2.6 Chemical Storage Areas. Minimize stormwater contamination and accidental spillage in chemical storage areas. Include a program to inspect containers and identify proper disposal methods.

E.AA.1.3 Spills and Leaks. In your spill prevention and response procedures, pay attention to the following materials (at a minimum): chromium, toluene, pickle liquor, sulfuric acid, zinc and other water priority chemicals, and hazardous chemicals and wastes.

E.AA.2 Additional SWPCP Requirements.

E.AA.2.1 Drainage Area Site Map. Document in your SWPCP where any of the following may be exposed to precipitation or surface runoff: raw metal storage areas; finished metal storage areas; scrap disposal collection sites; equipment storage areas; retention and detention basins; temporary and permanent diversion dikes or berms; right-of-way or perimeter diversion

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devices; sediment traps and barriers; processing areas, including outside painting areas; wood preparation; recycling; and raw material storage.

E.AA.2.2 Potential Pollutant Sources. Document in your SWPCP the following additional sources and activities that have potential pollutants associated with them: loading and unloading operations for paints, chemicals, and raw materials; outdoor storage activities for raw materials, paints, empty containers, corn cobs, chemicals, and scrap metals; outdoor manufacturing or processing activities such as grinding, cutting, degreasing, buffing, and brazing; onsite waste disposal practices for spent solvents, sludge, pickling baths, shavings, ingot pieces, and refuse and waste piles.

E.AA.3 Additional Inspection Requirements

E.AA.3.1 Inspections. At a minimum, include the following areas in all inspections: raw metal storage areas, finished product storage areas, material and chemical storage areas, recycling areas, loading and unloading areas, equipment storage areas, paint areas, and vehicle fueling and maintenance areas. Also inspect areas associated with the storage of raw metals, spent solvents and chemicals storage areas, outdoor paint areas, and drainage from roof. Potential pollutants include chromium, zinc, lubricating oil, solvents, aluminum, oil and grease, methyl ethyl ketone, steel, and related materials.

E.AA.4 Sector-Specific Benchmarks.

Table E.AA-1 identifies benchmarks that apply to the specific subsectors of Sector AA. These benchmarks apply to both your primary industrial activity and any co-located industrial activities.

Table E.AA-1

Subsector (You may be subject to requirements for more than one sector/subsector)	Parameter	Benchmark Monitoring Concentration
Subsector AA1. Fabricated Metal Products, except Coating (SIC 3411-3499; 3911-3915)	Total Aluminum	0.75 mg/L
	Total Iron	1.0 mg/L
	Nitrate plus Nitrite Nitrogen	0.68 mg/L
Subsector AA2. Fabricated Metal Coating and Engraving (SIC 3479)	Nitrate plus Nitrite Nitrogen	0.68 mg/L

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SCHEDULE F
NPDES GENERAL CONDITIONS

SECTION A. STANDARD CONDITIONS

1. Duty to Comply
   The permit registrant must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Oregon Revised Statutes (ORS) 468B.025, the Clean Water Act and 40 Code of Federal Regulations (CFR) §122.41(a), and is grounds for enforcement action; for permit termination, revocation and/or reissuance, or modification; or for denial of a permit renewal application.

2. Penalties for Water Pollution and Permit Condition Violations
   ORS 468.140 allows the Director to impose civil penalties up to $25,000 per day for violation of a term, condition, or requirement of a permit. ORS 468.943 creates the criminal offense of unlawful water pollution in the second degree, for the criminally negligent violation of ORS chapter 468B or any rule, standard, license, permit or order adopted or issued under ORS chapter 468B. Unlawful water pollution in the second degree is punishable by a fine of up to $25,000 or imprisonment for not more than one year, or both. In addition, OAR 468.946, creates the offense of unlawful water pollution of the first degree, which is a Class B felony.

3. Duty to Mitigate
   The permit registrant must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit. In addition, upon request of the department, the permit registrant must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.

4. Duty to Reapply
   If the permit registrant wishes to continue an activity regulated by this permit after the expiration date of this permit, the permit registrant must apply for and have the permit registration renewed. The application must be submitted at least 180 days before the expiration date of this permit. The department may grant written permission to submit an application less than 180 days in advance but no later than the permit expiration date.

5. Permit Actions
   This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
   a. Violation of any term, condition, or requirement of this permit, a rule, or a statute
   b. Failure to pay fees when they are due
   c. Obtaining this permit by misrepresentation or failure to disclose fully all material facts
   d. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge
   e. The permit registrant is identified as a Designated Management Agency or allocated a wasteload under a Total Maximum Daily Load (TMDL)
   f. New information or regulations
   g. Modification of compliance schedules
   h. Requirements of permit re-opener conditions
   i. Correction of technical mistakes made in determining permit conditions
   j. Determination that the permitted activity endangers human health or the environment
   k. Other causes as specified in 40 CFR §§122.62, 122.64, and 124.5

   DEQ will give permit registrant notice of the right to a contested case hearing in the event DEQ issues a Notice of Revocation, Suspension or Refusal to Renew the permit.

   The filing of a request by the permit registrant for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

6. Toxic Pollutants
   The permit registrant must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

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7. Property Rights
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to persons of property or invasion of any other private rights, nor any infringement of federal, tribal, state, or local laws or regulations.

8. Permit References
Except for effluent standards or prohibitions established under Section 307(a) of the Clean Water Act and OAR 340-041-0033for toxic pollutants, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

9. Permit Fees
The permit registrant must pay the fees required by OAR 340-045-0070 to 0075.
The permit registrant must pay annual compliance fees by the last day of the month prior to when the permit was issued. For example, if the permit was issued or last renewed in April, the due date will be March 31st. If the payment of annual fees is 30 days or more past due, the permit registrant must pay 9% interest per annum on the unpaid balance. Interest will accrue until the fees are paid in full. If DEQ does not receive payment of annual fees when they are due, DEQ will refer the account to the Department of Revenue or to a private collection agency for collection.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

1. Proper Operation and Maintenance
The permit registrant must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permit registrant to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permit registrant only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Duty to Halt or Reduce Activity
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permit registrant must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permit registrant in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

3. Bypass of Treatment Facilities
   a. Definitions
      (1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The term "bypass" does not include nonuse of singular or multiple units or processes of a treatment works when the nonuse is insignificant to the quality or quantity of the effluent produced by the treatment works. The term "bypass" does not apply if the diversion does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation.
      (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities or treatment processes which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

   b. Prohibition of bypass.
      (1) Bypass is prohibited unless:
         (a) Bypass was necessary to prevent loss of life, personal injury, or severe property damage;
         (b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
         (c) The permit registrant submitted notices and requests as required under General Condition B.3.c.
      (2) The Director may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Director determines that it will meet the three conditions listed above in General Condition B.3.b.(1).

c. Notice and request for bypass.
   (1) Anticipated bypass. If the permit registrant knows in advance of the need for a bypass, it must submit prior written notice, if possible at least ten days before the date of the bypass.
   (2) Unanticipated bypass. The permit registrant must submit notice of an unanticipated bypass as required in General Condition D.5.

4. Upset
   a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permit registrant. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

   b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of General Condition B.4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

   c. Conditions necessary for a demonstration of upset. A permit registrant who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      (1) An upset occurred and that the permit registrant can identify the causes(s) of the upset;
      (2) The permitted facility was at the time being properly operated;
      (3) The permit registrant submitted notice of the upset as required in General Condition D.5, hereof (24-hour notice); and
      (4) The permit registrant complied with any remedial measures required under General Condition A.3 hereof.

   d. Burden of proof. In any enforcement proceeding the permit registrant seeking to establish the occurrence of an upset has the burden of proof.

5. Treatment of Single Operational Event
   For purposes of this permit, A Single Operational Event which leads to simultaneous violations of more than one pollutant parameter must be treated as a single violation. A single operational event is an exceptional incident which causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one Clean Water Act effluent discharge pollutant parameter. A single operational event does not include Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational event is a violation.

6. Overflows from Wastewater Conveyance Systems and Associated Pump Stations
   a. Definitions
      (1) "Overflow" means the diversion and discharge of waste streams from any portion of the wastewater conveyance system including pump stations, through a designed overflow device or structure, other than discharges to the wastewater treatment facility.
      (2) "Severe property damage" means substantial physical damage to property, damage to the conveyance system or pump station which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of an overflow.
      (3) "Uncontrolled overflow" means the diversion of waste streams other than through a designed overflow device or structure, for example to overflowing manholes or overflowing into residences, commercial establishments, or industries that may be connected to a conveyance system.

   b. Prohibition of overflows. Overflows are prohibited unless:
      (1) Overflows were unavoidable to prevent an uncontrolled overflow, loss of life, personal injury, or severe property damage;
      (2) There were no feasible alternatives to the overflows, such as the use of auxiliary pumping or conveyance systems, or maximization of conveyance system storage; and
      (3) The overflows are the result of an upset as defined in General Condition B.4. and meeting all requirements of this condition.

   c. Uncontrolled overflows are prohibited where wastewater is likely to escape or be carried into the waters of the State by any means.

d. Reporting required. Unless otherwise specified in writing by the Department, all overflows and uncontrolled overflows must be reported orally to the Department within 24 hours from the time the permit registrant becomes aware of the overflow. Reporting procedures are described in more detail in General Condition D.5.

7. Public Notification of Effluent Violation or Overflow
If effluent limitations specified in this permit are exceeded or an overflow occurs, upon request by the Department, the permit registrant must take such steps as are necessary to alert the public about the extent and nature of the discharge. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

8. Removed Substances
Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering public waters, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

1. Representative Sampling
Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of the Director.

2. Flow Measurements
Appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to insure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

3. Monitoring Procedures
Monitoring must be conducted according to test procedures approved under 40 CFR §136, unless other test procedures have been specified in this permit.

4. Penalties of Tampering
The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit must, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years, or by both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years or both.

5. Reporting of Monitoring Results
Monitoring results must be summarized each month on a Discharge Monitoring Report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in Schedule B of this permit.

6. Additional Monitoring by the Permit registrant
If the permit registrant monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR §136 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (e.g., Total Chlorine Residual), only the average daily value must be recorded unless otherwise specified in this permit.

7. Averaging of Measurements
Calculations for all limitations which require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

8. Retention of Records
Except for records of monitoring information required by this permit related to the permit registrant's sewage sludge use and disposal activities, which must be retained for a period of at least five years (or longer as required by 40 CFR §503), the permit registrant must retain records of all monitoring information, including all calibration and maintenance records of all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

9. Records Contents
Records of monitoring information must include:
a. The date, exact place, time and methods of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

10. Inspection and Entry
The permit registrant must allow the Director, or an authorized representative upon the presentation of credentials to:
a. Enter upon the permit registrant's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit, and
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

SECTION D. REPORTING REQUIREMENTS

1. Planned Changes
The permit registrant must comply with Oregon Administrative Rules (OAR) 340, Division 052, "Review of Plans and Specifications". Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers must be commenced until the plans and specifications are submitted to and approved by the Department. The permit registrant must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

2. Anticipated Noncompliance
The permit registrant must give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers
This permit may be transferred to a new permit registrant provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and the rules of the Commission. No permit must be transferred to a third party without prior written approval from the Director. The permit registrant must notify the Department when a transfer of property interest takes place.

4. Compliance Schedule
Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

5. Twenty-Four Hour Reporting
The permit registrant must report any noncompliance which may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours, unless otherwise specified in this permit, from the time the permit registrant becomes aware of the circumstances. During normal business hours, the Department's Regional office must be called. Outside of normal business hours, the Department must be contacted at 1-800-452-0311 (Oregon Emergency Response System).

A written submission must also be provided within 5 days of the time the permit registrant becomes aware of the circumstances. If the permit registrant is establishing an affirmative defense of upset or bypass to any offense under ORS 468.922 to 468.946, and in which case if the original reporting notice was oral, delivered written notice must be made to the Department or other agency with regulatory jurisdiction within 4 (four) calendar days. The written submission must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected;
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and
e. Public notification steps taken, pursuant to General Condition B.7.

The following must be included as information which must be reported within 24 hours under this paragraph:
a. Any unanticipated bypass which exceeds any effluent limitation in this permit.
b. Any upset which exceeds any effluent limitation in this permit.
c. Violation of maximum daily discharge limitation for any of the pollutants listed by the Director in this permit.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

6. Other Noncompliance
The permit registrant must report all instances of noncompliance not reported under General Condition D.4 or D.5, at the time monitoring reports are submitted. The reports must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

7. Duty to Provide Information
The permit registrant must furnish to the Department, within a reasonable time, any information which the Department may request to determine compliance with this permit. The permit registrant must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permit registrant becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

8. Signatory Requirements
All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR §122.22.

9. Falsification of Reports
Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $100,000 per violation and up to 5 years in prison.

SECTION E. DEFINITIONS

1. BOD means five-day biochemical oxygen demand.
2. TSS means total suspended solids.
3. mg/l means milligrams per liter.
4. kg means kilograms.
5. m^3/d means cubic meters per day.

6. MGD means million gallons per day.
7. Composite sample means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
8. FC means fecal coliform bacteria.
9. Technology based permit effluent limitations means technology-based treatment requirements as defined in 40 CFR §125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
10. CBOD means five day carbonaceous biochemical oxygen demand.
11. Grab sample means an individual discrete sample collected over a period of time not to exceed 15 minutes.
12. Quarter means January through March, April through June, July through September, or October through December.
13. Month means calendar month.
14. Week means a calendar week of Sunday through Saturday.
15. Total residual chlorine means combined chlorine forms plus free residual chlorine.
16. The term "bacteria" includes but is not limited to fecal coliform bacteria, total coliform bacteria, and E. coli bacteria.
17. POTW means a publicly owned treatment works.

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	ASH GROVE CEMENT COMPANY	*ODEQ File No./Facility ID:*	107213
Facility Common Name:	ASH GROVE CEMENT COMPANY	Reporting Period: July 1, 2007 to June 30, 2008	
Facility Location:	3737 N. PORT CENTER WAY	Laboratory Name:	COLUMBIA INSPECTION
County:	MULT	Laboratory ORELAP #:	

DEQ
State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of laboratory results sheet(s) and associated QA/QC information to this form.

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
OUTFALL # 4	11/16/2007	7.06	11	ND (2.0)	ND (.005)	ND (.005)	ND (.003)	
OUTFALL # 4	12/19/2007	7.43	27	4.5	0.013	0.006	0.084	
OUTFALL # 4	3/13/2008	7.34	42	7.3	0.021	0.003	0.14	
OUTFALL # 4	4-Apr	6.89	70	7.2	0.03	0.011	0.19	
Geometric Mean (Note 4)		**7.177**	**30.569**	**6.184**	**0.020**	**0.006**	**0.131**	
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Permit Benchmark		**5.5 - 9.0**	**130**	**10**	**0.1**	**0.4**	**0.6**	**406**

*** Only applies to landfills accepting septage/biosolids and sewage treatment plants.**

**** Effluent limits for these parameters apply to some industries - see permit, Schedule A.7.**

Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3.

Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in parentheses - e.g. ND (0.001).

Note 3: If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the benchmark exceedance(s), review the SWPCP and submit an Action Plan for department or agent approval.

Note 4: For the 4th year of coverage under the permit that became effective on July 1, 2007, report the geometric mean value of the last 4 samples collected for each pollutant parameter, from each sampling point. The geometric mean value is automatically calculated if using the Excel version of the DMR form.

Name/Title Principal Executive Officer or Authorized Delegate

(Please Print)

Telephone: *Email:*

I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sign here: Date

See reverse side for additional visual monitoring requirements

07-WQ-001f

AGC0012169

Monthly Visual Observations

	Record Visual Observations for Oil and Grease Sheen and Floating Solids:	
	Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.	**Floating Solids** (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

	Date	Observations (please note the sampling point(s) name or number)
July	7/12/2007	Outfall # 4 No Visiable Sheen No floating solids
August	8/20/2007	Outfall # 4 No Visiable Sheen No floating solids
September	28-Sep	Outfall # 4 No Visiable Sheen No floating solids
October	16-Oct	Outfall # 4 No Visiable Sheen No floating solids
November	15-Nov	Outfall # 4 No Visiable Sheen No floating solids
December	3-Dec	Outfall # 4 No Visiable Sheen No floating solids
January	1/8/2008	Outfall # 4 No Visiable Sheen No floating solids
February	2/6/2008	Outfall # 4 No Visiable Sheen No floating solids
March	3/3/2008	Outfall # 4 No Visiable Sheen No floating solids
April	4/4/2008	Outfall # 4 No Visiable Sheen No floating solids
May	20-May	Outfall # 4 No Visiable Sheen No floating solids
June	5-Jun	Outfall # 4 No Visiable Sheen No floating solids

For facilities located within the following local jurisdictions, please submit one (1) copy of this report and laboratory results sheet(s) and QA/QC documentation to the local jursisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater
Section
Water Pollution Control Lab
6543 N Burlington Ave.
Portland, OR 97203-5452

City of Eugene
Industrial Source Control
410 River Ave.
Eugene, OR 97404

For all other locations, please submit one (1) copy of this report and laboratory results sheet(s) and the QA/QC documentation to the appropriate DEQ regional office annually by July 31st:

DEQ Northwest Region Office
2020 SW 4th Ave. Suite 400
Portland, OR 97201
Phone: (503) 229-5263
Hours: 8 am - 5 pm

DEQ Eastern Region Office
300 SE Reed Market Rd.
Bend, OR 97702-2237
Phone: (541) 388-6146
Hours: 8 am - 5 pm

DEQ Western Region Office
(Benton, Lincoln, Marion,
Polk, and Yamhill counties)
750 Front St NE, #120
Salem, OR 97301-1039
Phone: (503) 378-8240
Hours: Mon - Thurs: 8 am - 5 pm
Fri: 8 am - noon, 1 - 5 pm

DEQ Western Region Office
(Lane and Linn counties)
1102 Lincoln St. Suite 210
Eugene, OR 97401
Phone: (541) 686-7838
Hours: 8 am - 5 pm

DEQ Western Region Office
(Coos, Curry, Douglas, Jackson,
and Josephine counties)
221 Stewart Ave. Suite 201
Medford, OR 97501
Phone: (541) 776-6010
Hours: 8 am – noon, 1 - 5 pm

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	ASH GROVE CEMENT COMPANY	*ODEQ File No./Facility ID:*	107213
Facility Common Name:	ASH GROVE CEMENT COMPANY	Reporting Period: July 1, 2008 to June 30, 2009	
Facility Location:	3737 N. PORT CENTER WAY	Laboratory Name:	COLUMBIA INSPECTION
County:	MULT	Laboratory ORELAP #:	

DEQ
State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of labora

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
OUTFALL # 4	11/16/2007	7.06	11	ND (2.0)	ND (.005)	ND (.005)	ND (.003)	
OUTFALL # 4	12/19/2007	7.43	27	4.5	0.013	0.006	0.084	
OUTFALL # 4	3/13/2008	7.34	42	7.3	0.021	0.003	0.14	
OUTFALL # 4	4-Apr	6.89	70	7.2	0.03	0.011	0.19	
Geometric Mean (Note 4)		**7.177**	**30.569**	**6.184**	**0.020**	**0.006**	**0.131**	
OUTFALL # 4	20-Nov	6.91	ND (10.0	ND (6.0)	ND (0.020)	ND (0.010)	0.046	
OUTFALL # 4	12-Dec	7.53	32	ND (6.0)	0.02	ND (0.010)	0.15	
OUTFALL # 4	23-Feb	7.25	22	12.7	ND (0.020)	ND (0.010)	0.13	
OUTFALL # 4	5-May	7.67	15	ND (6.0)	ND (0.036)	ND (0.020)	0.056	
Geometric Mean (Note 4)		**7.334**	**21.939**	**12.700**	**0.020**		**0.084**	
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Permit Benchmark		**5.5 - 9.0**	**130**	**10**	**0.1**	**0.4**	**0.6**	**406**

*** Only applies to landfills accepting septage/biosolids and sewage treatment plants.**

**** Effluent limits for these parameters apply to some industries - see permit, Schedule A.7.**

Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3.

Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in parentheses - e.g. ND (0.001).

Note 3: If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the benchmark exceedance(s), review the SWPCP and submit an Action Plan for department or agent approval.

Note 4: For the 4th year of coverage under the permit that became effective on July 1, 2007, report the geometric mean value of the last 4 samples collected for each pollutant parameter, from each sampling point. The geometric mean value is automatically calculated if using the Excel version of the DMR form.

Name/Title Principal Executive Officer or Authorized Delegate

(Please Print)

Telephone: *Email:*

I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my

Sign here: Date

See reverse side for additional visual monitoring requirements

07-WQ-001f

AGC0012171

Monthly Visual Observations

	Record Visual Observations for Oil and Grease Sheen and Floating Solids:	
	Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.	**Floating Solids** (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

	Date	Observations (please note the sampling point(s) name or number)
July	7/3/2008	No Discharge
August	8/18/2008	Outfall # 4 No Visiable Sheen No floating solids
September	22-Sep	Outfall # 4 No Visiable Sheen No floating solids
October	7-Oct	Outfall # 4 No Visiable Sheen No floating solids
November	11-Nov	Outfall # 4 No Visiable Sheen No floating solids
December	12-Dec	Outfall # 4 No Visiable Sheen No floating solids
January	1/7/2009	Outfall # 4 No Visiable Sheen No floating solids
February	2/23/2009	Outfall # 4 No Visiable Sheen No floating solids
March	3/3/2009	Outfall # 4 No Visiable Sheen No floating solids
April	4/13/2009	Outfall # 4 No Visiable Sheen No floating solids
May	5-May	Outfall # 4 No Visiable Sheen No floating solids
June	10-Jun	Outfall # 4 No Visiable Sheen No floating solids

For facilities located within the following local jurisdictions, please submit one (1) copy of this report and laboratory results sheet(s) and QA/QC documentation to the local jursisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater Section
Water Pollution Control Lab
6543 N Burlington Ave.
Portland, OR 97203-5452

City of Eugene
Industrial Source Control
410 River Ave.
Eugene, OR 97404

For all other locations, please submit one (1) copy of this report and laboratory results sheet(s) and the QA/QC documentation to the appropriate DEQ regional office annually by July 31st:

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2020 SW 4th Ave. Suite 400
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Phone: (503) 229-5263
Hours: 8 am - 5 pm

DEQ Eastern Region Office
300 SE Reed Market Rd.
Bend, OR 97702-2237
Phone: (541) 388-6146
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(Benton, Lincoln, Marion,
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Phone: (541) 776-6010
Hours: 8 am – noon, 1 - 5 pm

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	ASH GROVE CEMENT COMPANY	*ODEQ File No./Facility ID:*	107213
Facility Common Name:	ASH GROVE CEMENT COMPANY	Reporting Period:	July 1, 2009 to June 30, 2010
Facility Location:	3737 N. PORT CENTER WAY	Laboratory Name:	COLUMBIA INSPECTION / PYXIS
County:	MULT	Laboratory ORELAP #:	

DEQ
State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of labora

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
OUTFALL # 4	11/16/2007	7.06	11	ND (2.0)	ND (.005)	ND (.005)	ND (.003)	
OUTFALL # 4	12/19/2007	7.43	27	4.5	0.013	0.006	0.084	
OUTFALL # 4	3/13/2008	7.34	42	7.3	0.021	0.003	0.14	
OUTFALL # 4	4-Apr	6.89	70	7.2	0.03	0.011	0.19	
Geometric Mean (Note 4)		**7.177**	**30.569**	**6.184**	**0.020**	**0.006**	**0.131**	
OUTFALL # 4	20-Nov	6.91	ND (10.0	ND (6.0)	ND (0.020)	ND (0.010)	0.046	
OUTFALL # 4	12-Dec	7.53	32	ND (6.0)	0.02	ND (0.010)	0.15	
OUTFALL # 4	23-Feb	7.25	22	12.7	ND (0.020)	ND (0.010)	0.13	
OUTFALL # 4	5-May	7.67	15	ND (6.0)	ND (0.036)	ND (0.020)	0.056	
Geometric Mean (Note 4)		**7.334**	**21.939**	**12.700**	**0.020**		**0.084**	
OUTFALL # 4	21-Oct	7.9	4	ND(2.8)	ND(0.01)	ND(0.002)	ND(0.05)	
OUTFALL # 4	20-Nov	7.8	8	ND(2.8)	ND(0.01)	ND(0.002)	0.057	
OUTFALL # 4	4-Jan	7.83	2	ND(2.8)	0.012	ND(0.002)	0.059	
OUTFALL # 4	26-Feb	7.96	5	3.2	ND(0.01)	ND(0.002)	0.068	
Geometric Mean (Note 4)		**7.872**	**4.229**	**3.200**	**0.012**		**0.061**	
Geometric Mean (Note 4)								
Permit Benchmark		**5.5 - 9.0**	**130**	**10**	**0.1**	**0.4**	**0.6**	**406**

* Only applies to landfills accepting septage/biosolids and sewage treatment plants.

** Effluent limits for these parameters apply to some industries - see permit, Schedule A.7.

Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3.

Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in parentheses - e.g. ND (0.001).

Note 3: If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the benchmark exceedance(s), review the SWPCP and submit an Action Plan for department or agent approval.

Note 4: For the 4th year of coverage under the permit that became effective on July 1, 2007, report the geometric mean value of the last 4 samples collected for each pollutant parameter, from each sampling point. The geometric mean value is automatically calculated if using the Excel version of the DMR form.

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Sign here: Date

See reverse side for additional visual monitoring requirements

Monthly Visual Observations

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Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

Floating Solids (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

	Date	Observations (please note the sampling point(s) name or number)
July	7/13/2009	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
August	8/12/2009	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
September	29-Sep	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
October	14-Oct	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
November	6-Nov	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
December	14-Dec	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
January	1/4/2010	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
February	2/3/2010	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
March	3/30/2010	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
April	4/27/2010	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
May	20-May	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
June	2-Jun	No oil, Grease, or Floating Solids observed this month At OutFall # 4.

For facilities located within the following local jurisdictions, please submit one (1) copy of this report and laboratory results sheet(s) and QA/QC documentation to the local jurisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater Section
Water Pollution Control Lab
6543 N Burlington Ave.
Portland, OR 97203-5452

City of Eugene
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300 SE Reed Market Rd.
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Hours: 8 am - 5 pm

DEQ Western Region Office
(Benton, Lincoln, Marion, Polk, and Yamhill counties)
750 Front St NE, #120
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Phone: (541) 776-6010
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Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	ASH GROVE CEMENT COMPANY	*ODEQ File No./Facility ID:*	107213
Facility Common Name:	ASH GROVE CEMENT COMPANY	Reporting Period: July 1, 2010 to June 30, 2011	
Facility Location:	3737 N. PORT CENTER WAY	Laboratory Name:	PYXIS
County:	MULT	Laboratory ORELAP #:	OR100028

DEQ
State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of labora

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
OUTFALL # 4	11/16/2007	7.06	11	ND (2.0)	ND (.005)	ND (.005)	ND (.003)	
OUTFALL # 4	12/19/2007	7.43	27	4.5	0.013	0.006	0.084	
OUTFALL # 4	3/13/2008	7.34	42	7.3	0.021	0.003	0.14	
OUTFALL # 4	4-Apr	6.89	70	7.2	0.03	0.011	0.19	
Geometric Mean (Note 4)		**7.177**	**30.569**	**6.184**	**0.020**	**0.006**	**0.131**	
OUTFALL # 4	20-Nov	6.91	ND (10.0	ND (6.0)	ND (0.020)	ND (0.010)	0.046	
OUTFALL # 4	12-Dec	7.53	32	ND (6.0)	0.02	ND (0.010)	0.15	
OUTFALL # 4	23-Feb	7.25	22	12.7	ND (0.020)	ND (0.010)	0.13	
OUTFALL # 4	5-May	7.67	15	ND (6.0)	ND (0.036)	ND (0.020)	0.056	
Geometric Mean (Note 4)		**7.334**	**21.939**	**12.700**	**0.020**		**0.084**	
OUTFALL # 4	21-Oct	7.9	4	ND(2.8)	ND(0.01)	ND(0.002)	ND(0.05)	
OUTFALL # 4	20-Nov	7.8	8	ND(2.8)	ND(0.01)	ND(0.002)	0.057	
OUTFALL # 4	4-Jan	7.83	2	ND(2.8)	0.012	ND(0.002)	0.059	
OUTFALL # 4	26-Feb	7.96	5	3.2	ND(0.01)	ND(0.002)	0.068	
Geometric Mean (Note 4)		**7.872**	**4.229**	**3.200**	**0.012**		**0.061**	
OUTFALL # 4	26-Oct	7.52	5	ND(2.8)	ND(0.01)	ND(0.002)	0.052	
OUTFALL # 4	14-Dec	6.83	5	ND(2.8)	ND(0.01)	ND(0.002)	0.02	
OUTFALL # 4	12-Jan	7.14	3	ND(2.8)	0.016	ND(0.002)	0.13	
OUTFALL # 4	15-Feb	6.92	2	ND(2.8)	ND(0.01)	ND(0.002)	0.076	
Geometric Mean (Note 4)		**7.098**	**3.500**		**0.016**		**0.057**	
Permit Benchmark		**5.5 - 9.0**	**130**	**10**	**0.1**	**0.4**	**0.6**	**406**

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** Effluent limits for these parameters apply to some industries - see permit, Schedule A.7.

Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3.

Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in parentheses - e.g. ND (0.001).

Note 3: If a stormwater sampling result exceeds any of the benchmark values, the permit registrant must, within 30 calendar days of receiving the sampling results, investigate the cause of the benchmark exceedance(s), review the SWPCP and submit an Action Plan for department or agent approval.

Note 4: For the 4th year of coverage under the permit that became effective on July 1, 2007, report the geometric mean value of the last 4 samples collected for each pollutant parameter, from each sampling point. The geometric mean value is automatically calculated if using the Excel version of the DMR form.

Name/Title Principal Executive Officer or Authorized Delegate

(Please Print)

Telephone: *Email:*

I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my

Sign here: Date

See reverse side for additional visual monitoring requirements

Monthly Visual Observations

Record Visual Observations for Oil and Grease Sheen and Floating Solids:

Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

Floating Solids (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

	Date	Observations (please note the sampling point(s) name or number)
July	7/30/2010	No Discharge this month,
August	8/30/2010	No Discharge this month, Storm drains were cleaned out, and new drain diapers installed.
September	16-Sep	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
October	25-Oct	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
November	1-Nov	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
December	8-Dec	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
January	1/12/2011	No oil, Grease, or Floating Solids observed this month At OutFall # 4.
February	2/14/2011	No Oil, Grease, or Floating Solids observed this month At OutFall # 4 moderate rain.
March	3/1/2011	No Oil, Grease, or Floating Solids observed this month At OutFall # 4 Heavy rain.
April		Remember to observe weather in indicate it here, heavy rain , light rain etc.
May		Remember to observe weather in indicate it here, heavy rain , light rain etc.
June		Remember to observe weather in indicate it here, heavy rain , light rain etc.

For facilities located within the following local jurisdictions, please submit one (1) copy of this report and laboratory results sheet(s) and QA/QC documentation to the local jurisdiction annually by July 31st:

Clean Water Services
Industrial Stormwater
2550 SW Hillsboro Hwy.
Hillsboro, OR 97123

City of Portland
Industrial Stormwater Section
Water Pollution Control Lab
6543 N Burlington Ave.
Portland, OR 97203-5452

City of Eugene
Industrial Source Control
410 River Ave.
Eugene, OR 97404

For all other locations, please submit one (1) copy of this report and laboratory results sheet(s) and the QA/QC documentation to the appropriate DEQ regional office annually by July 31st:

DEQ Northwest Region Office
2020 SW 4th Ave. Suite 400
Portland, OR 97201
Phone: (503) 229-5263
Hours: 8 am - 5 pm

DEQ Eastern Region Office
300 SE Reed Market Rd.
Bend, OR 97702-2237
Phone: (541) 388-6146
Hours: 8 am - 5 pm

DEQ Western Region Office
(Benton, Lincoln, Marion, Polk, and Yamhill counties)
750 Front St NE, #120
Salem, OR 97301-1039
Phone: (503) 378-8240
Hours: Mon - Thurs: 8 am - 5 pm
Fri: 8 am - noon, 1 - 5 pm

DEQ Western Region Office
(Lane and Linn counties)
1102 Lincoln St. Suite 210
Eugene, OR 97401
Phone: (541) 686-7838
Hours: 8 am - 5 pm

DEQ Western Region Office
(Coos, Curry, Douglas, Jackson, and Josephine counties)
221 Stewart Ave. Suite 201
Medford, OR 97501
Phone: (541) 776-6010
Hours: 8 am – noon, 1 - 5 pm

INDUSTRY NAME: ASHGROVE CEMENT COMPANY

Initials	Date	Time	pH reading at 4.0 SU	Calibration Successful ? Y/N	pH reading at 7.0 SU	Calibration Successful ? Y/N	pH reading at 10.0 SU	Calibration Successful ? Y/N	Results pH
JH	2/23/09	10:15	4.00	Y	7.00	Y	10.00	Y	7.8
JH	5/5/09	9:10	3.99	Y	7.10	Y	10.00	Y	7.8
JH	10/21/09	9:45	4.00	Y	7.00	Y	10.00	Y	7.9
JH	11/20/09	11:01	4.02	Y	7.00	Y	10.00	Y	7.8
JH	1/4/10	11:05	4.02	Y	7.00	Y	10.00	Y	7.83
JH	2/26/10	10:30	3.99	Y	7.00	Y	10.00	Y	7.96
JH	10/26/10	8:30	4.00	Y	6.99	Y	10.10	Y	7.2
JH	12/14/10	10:50	4.20	Y	7.00	Y	10.00	Y	7.37
JH	1/12/11	11:00	3.99	Y	7.10	Y	9.99	Y	7.1
JH	2/15/11	8:00	4.01	Y	7.00	Y	10.01	Y	7.4

Industrial Stormwater Discharge Monitoring Report - 1200-Z Permit

Permittee Legal Name:	ASH GROVE CEMENT COMPANY	*ODEQ File No./Facility ID:*	107213
Facility Common Name:	ASH GROVE CEMENT COMPANY	Reporting Period: July 1, 2012 to June 30, 2013	
Facility Location:	3737 N. PORT CENTER WAY	Laboratory Name:	PYXIS
County:	MULT	Laboratory ORELAP #:	OR100028

State of Oregon Department of Environmental Quality

Monitor for the following pollutants at sampling point(s) specified in your SWPCP. Add more sheets if necessary (e.g., if more than 4 samples are collected per pollutant or facility has more than 4 sampling points). You MUST also attach a copy of labora

Name or Number of Sampling Point(s) (group data per sampling point)	Sample Date	pH **	Suspended Solids, Total **	Oil and Grease, Total **	Copper, Total	Lead, Total	Zinc, Total	E. coli *
		s.u.	mg/L	mg/L	mg/L	mg/L	mg/L	counts/100 ml
OutFall # 4 2011	22-Nov	7.1	28	ND (4.74)	ND (0.01)	0.00238	0.095	
OutFall # 4 2011	28-Dec	7.41	7.5	ND (4.74)	ND (0.01)	ND (0.002)	0.0743	
OutFall # 4 2012	19-Jan	7.39	11.8	ND (4.74)	0.0272	0.00224	0.0924	
OutFall # 4 2012	14-Mar	7.83	5	ND (4.74)	ND (0.01)	ND (0.002)	0.0652	
Geometric Mean (Note 4)		**7.428**	**10.550**		**0.027**	**0.002**	**0.081**	
OutFall 2012	22-Oct	7.03	2.4	ND (4.74)	ND (0.01)	ND (0.002)	0.0606	
OutFall 2012	20-Nov	6.7	10	ND (4.74)	0.00766	0.00215	0.0623	
Geometric Mean (Note 4)		**6.863**	**4.899**		**0.008**	**0.002**	**0.061**	
Geometric Mean (Note 4)								
Geometric Mean (Note 4)								
Permit Benchmark (New Limits 2012)		**5.5 - 9.0**	**100**	**10**	**0.02**	**0.04**	**0.12**	**406**

*** Only applies to landfills accepting septage/biosolids and sewage treatment plants.**

**** Effluent limits for these parameters apply to some industries - see permit, Schedule A.7.**

Note 1: Submit this report to the appropriate DEQ regional or agent offices (see below) annually by July 31st. The report must contain the results of all stormwater monitoring conducted during the year. If you have a monitoring waiver for one or more of the pollutant(s), please report "M" in the column(s)-see permit-Schedule B.3.

Note 2: Non-detects must be reported as "ND" along with the applicable method detection limit in parentheses - e.g. ND (0.001).

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Name/Title Principal Executive Officer or Authorized Delegate

(Please Print)

Telephone: *Email:*

I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my

Sign here: Date

See reverse side for additional visual monitoring requirements

07-WQ-001f

Monthly Visual Observations

	Record Visual Observations for Oil and Grease Sheen and Floating Solids:	
	Oil and Grease Sheen - No visible sheen allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.	**Floating Solids** (associated with industrial activities) – No visible discharge allowed. Monthly observation when discharging. For months when no discharges occur, please write in "No Discharge" for that month.

	Date	Observations (please note the sampling point(s) name or number)
July	31-Jul	" NO DISCHARGE"
August	31-Aug	" NO DISCHARGE"
September	28-Sep	" NO DISCHARGE"
October	22-Oct	Moderate Rain, No floating solids or sheen visible.
November	20-Nov	Moderate Rain, No floating solids or sheen visible.
December	3-Dec	Light Rain , No floating solids or sheen visible
January		
February		
March		
April		
May		
June		

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Industrial Stormwater
Section
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Hours: 8 am - 5 pm

DEQ Western Region Office
(Benton, Lincoln, Marion,
Polk, and Yamhill counties)
750 Front St NE, #120
Salem, OR 97301-1039
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DEQ Western Region Office
(Coos, Curry, Douglas, Jackson,
and Josephine counties)
221 Stewart Ave. Suite 201
Medford, OR 97501
Phone: (541) 776-6010
Hours: 8 am – noon, 1 - 5 pm

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Avenue, Bldg. 217, Portland, Oregon 97203 • Dan Saltzman, Commissioner • Dean Marriott, Director

December 5, 2012

Glenn Dollar
Ash Grove Cement Company.
13939 N Rivergate Boulevard
Portland, OR 97203

RE: Stormwater Facility Inspection- Ash Grove Cement Facilities - **3737 N Port Center Way & 2600 N River Street**, Portland, Oregon DEQ File No 107213

Dear Mr. Dollar:

The City of Portland (City) conducted an inspection of the two terminals of the Ash Grove Cement Company on December 4, 2012. The purpose of the inspection was to evaluate the company's compliance with the 1200-Z NPDES Stormwater Permit that has been issued for this combined site. The site was clean and there were no issues of non-compliance observed during the inspection.

Please note the following in order to protect stormwater quality:

- The City recommends a continued focus on housekeeping at both the north and south terminals. This includes sweeping the site and cleaning or replacing the catch basin inserts as needed, followed by hand sweeping around process area catch basins and the conveyor nearest the silos, to control sediment build-up and cut down on track-out.

- The south terminal's truck wash area discharges to an on-site infiltration swale under a 1700-B Permit. The City recommends that the paved areas near the exit from the truck wash continue be checked for signs of debris and sedimentation build-up that may be tracked to other parts of the facility, causing stormwater run-off exposures from the residuals.

- The above mentioned swale is being maintained by a landscape contractor who is cleaning out the solids and garbage as well as replanting the bottom and sides of the swale. The City recommends that the swale continue to be cleaned of debris and sediments at least yearly so that it will continue to infiltrate as designed.

- The City recommends continuing the visual observations of the 'rock sump' outlets that were discovered in 2002. Although no discharge has yet been seen, any such discharges will need to be noted and traced back to their origin if possible.

- The City recognizes that the installation of the rain shield over the fuel nozzle and the installation of a drip pan will help prevent stormwater exposures that are usually associated with on-site fueling operations.

- The documentation of sample results, pH probe calibrations, visual observations, and catch basin clean-outs were reviewed and found to be in good order.

Thank you for taking the time to review the operation of the two combined facilities and stormwater management program at these sites. The City appreciates your commitment to minimize contaminated stormwater runoff to the Willamette River. If you have any questions or need additional information, please feel free to contact me at 503.823.5537.

Sincerely,

Timothy P. Dean
Permit Manager
City of Portland
Industrial Stormwater Section

CC: John Hone; Terminal Manager, Ash Grove Cement

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
FOR
ASH GROVE CEMENT COMPANY
3737 N. Port Center Way
Portland, Oregon 97217

Designated person accountable for spill prevention:
John Hone
Terminal Manager
(503) 285-4621 (office)
(503) 784-3463 (cell)

CERTIFICATION

MANAGEMENT APPROVAL

Ash Grove Cement Company is committed to the prevention of discharges of oil to navigable waters and the environment, and maintains the highest standards for spill prevention control and countermeasures through regular review, updating and implementation of this Spill Prevention Control and Counter Measure Plan. This Spill Prevention Control and Countermeasure Plan will be implemented as described herein.

Signature: _____ Date: _____

Name: Gary Wright

Title: Operations Manager

CERTIFICATION

I hereby certify that I am familiar with the provisions of 40 CFR Part 112, and attest that this SPCC Plan has been prepared in accordance with good engineering practices.

Engineer: Mark S. Erickson

Signature:

Registration Number: 74664PE

State: Oregon

Date: 6/23/06

Seal

R:\0168.01 Ash Grove Cement Co\Report\02_SPCC Rpt 6.23.06\Ash Grove SPCC.DOC

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN COMPLIANCE REVIEW REQUIREMENTS AND HISTORY

This SPCC plan will be amended whenever there is a change in the facility design, construction, operation, or maintenance that materially affects the facility's potential for discharge of oil into or upon the navigable waters of the United States. Amendments will be incorporated as soon as practical, but not later than six months after such change occurs.

Additionally, a review and evaluation of the SPCC plan will be conducted at least once every five years. As a result of this review and evaluation, the plan will be amended within six months to include more effective prevention and control technology, if appropriate. Any time a facility change or review and evaluation result in the need for SPCC plan technical amendments, the SPCC plan will be recertified by a PE, consistent with 40 CFR Part 112.3.

Each review or amendment to the SPCC plan will be documented in the table provided below. Documentation shall include a summary of the review or amendment; the number, date, and plan sections affected by the review or amendment; and the name and signature of the person completing the review or amendment.

No.	Summary of Revisions	Date	Individual or Company Name	Reviewer Signature
1	Revise SPCC Plan	06/23/06	Maul Foster & Alongi, Inc.	
2	Change corrections to asphalt only pg24	10/12/06	Glenn F. Dollar Ash Grove Cement Company	
3	5 year plan review and evaluation	11/23/2011	Glenn Dollar	

APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: Ash Grove Cement Company

FACILITY ADDRESS: 3737 North Port Center Way
Portland, Oregon 97217

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?
   Yes _____ No X

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?
   Yes _____ No X

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the formula in Attachment C-III, Appendix C, 40 CFR 112 or a comparable formula [1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Environments" (Section 10, Appendix E, 40 CFR 112 for availability) and the applicable Area Contingency Plan.
   Yes _____ No X

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula (Attachment C-III, Appendix C, 40 CFR 112 or a comparable formula [1]) such that a discharge from the facility would shut down a public drinking water intake[2] ?
   Yes _____ No X

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?
   Yes _____ No X

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SPILL PREVENTION CONTROL AND COUNTERMEASURES PLAN
ASH GROVE CEMENT COMPANY

1. PURPOSE

The purpose of this spill prevention control and countermeasure (SPCC) plan is to prevent oil spills, and to respond safely, efficiently, and in a timely manner in the event of a spill or leak (both referred to herein as "spills"). The July 1, 2002 version of the U.S. Environmental Protection Agency (USEPA) oil-pollution-prevention regulations in 40 Code of Federal Regulations (CFR) 112 were used as guidance for the development of this plan. The plan also addresses provisions in the proposed December 12, 2005 revisions of the oil oil-pollution-prevention rules in anticipation that these provisions will become an active part of the plan when the revised rules become effective. Citations included in the subject headings of this plan are in the order they are presented in the 2002 version of 40 CFR 112 oil-pollution-prevention rules.

Per 40 CFR 112, Ash Grove Cement Company must prepare and implement an SPCC plan for facilities that could reasonably be expected to discharge oil into or upon navigable waters or adjoining shorelines (Ash Grove Cement Company's terminal facility discharges stormwater to the Willamette River) and that meet one of the following conditions:

- The aggregate aboveground storage capacity of the facility exceeds 1,320 gallons. Only containers with a capacity of 55 gallons or greater are counted. Ash Grove Cement Company's terminal facility oil storage capacity exceeds the 1,320-gallon threshold.

- Underground oil-storage capacity exceeds 42,000 gallons, unless the underground tanks are subject to all of the technical requirements of 40 CFR 280 or a state program approved under 40 CFR 281. There are no underground storage tanks at the Ash Grove Cement Company terminal facility.

As defined by 40 CFR Part 112, oil includes all grades of motor oil, hydraulic oil, lube oil, fuel oil, gasoline and diesel, automatic transmission fluid, used oil, transformer mineral oil, fluorescent penetrant oil, and some cutting fluids used for targeting or machining. The definition of oil also includes nonpetroleum oils such as animal or vegetable oils and synthetic oils. Throughout the remainder of this document, the term "oil" will mean all substances regulated under 40 CFR Part 112.

2. FACILITY OWNER AND OPERATOR

A. Facility Owner, Address, and Telephone:

Ash Grove Cement Company
11011 Cody Street
Overland Park, Kansas 66210
Telephone (913) 451-8900

B. Facility Operator, Address, and Telephone:

Ash Grove Cement Company
3737 North Port Center Way
Portland, Oregon 97217
Telephone: (503) 285-4621
Fax: (503) 286-4987

3. FACILITY CONTACT(s)

Name	Title	Telephone
John Hone	Terminal Manager	(503) 285-4621(office)
		(503) 784-3463 (cell)
Gary Wright	Portland Operations Manager	(503) 247-5424(office)
Glenn Dollar	Envir, Health & Safety Manager	(503) 247-5423 (office)

4. FACILITY DESCRIPTION

A. Plant Description:

112.7(a)(3) Describe the physical layout of the facility and include a facility diagram which shows the location and contents of each container and underground storage tank.

Ash Grove has operated a cement distribution facility at 3737 North Port Center Way since 1995. Ash Grove purchased the property north of its existing operations from Goldendale Aluminum on December 28, 2005. The combined property (facility) includes a north terminal (former Columbia Aluminum property) and a south terminal (existing Ash Grove facility). The facility is rectangular in shape and encompasses approximately 14.52 acres. The facility is located on the east bank of the Willamette River approximately nine miles upstream of the confluence of the Willamette River into the Columbia River and one mile northwest of the Fremont Bridge. The facility is bordered on the west by the Willamette River, north by the City of Portland combined sewage outfall project, and east and south by Union Pacific railroad. The facility is located in the South 1/2 of Section 21 and the North 1/2 of Section 28 of Township 1 North, Range 1 East. Anticipated activities at the combined facilities will require storage of petroleum products in sufficient quantity

that require development and implementation of a Spill Prevention, Control and Countermeasures Plan.

The facility is located in the northern portion of the Willamette Valley physiographic province. The region is underlain with sand and silt deposited on the flood plain and includes areas of artificial fill, largely derived from recent alluvium.[1] The *Soil Survey of Multnomah County Area, Oregon*, compiled by the U.S. Soil Conservation Service, describes the soil at the subject property as Urban land, 0 to 3 percent slopes. No hydric soil components are listed for this soil series in the May 31, 1989, Hydric Soils in Multnomah County Area, Oregon, compiled by the U.S. Soil Conservation Service. Hydric soils are an essential characteristic of wetlands and are defined as soils which are saturated, flooded, or ponded long enough to develop anaerobic conditions in the upper part of the soil profile. From the published soil survey information available, it would appear that the subject site does not meet the soil criteria for jurisdictional wetlands. However, a comprehensive and site specific wetlands determination, including characterization of the soils using onsite assessment methods and assessment of hydrophytic vegetation and wetland hydrology, has not been performed.

The north terminal property (8.22 acres) is operated as a terminal for portland cement. It includes ship mooring dolphins, a dock, a pneumatic conveyance system with a blower room (for material transfer from the ship to the silos), a reclaim system (for material transfer from the silos to the rail load-out building), three storage tanks, a rail load-out building, a shop and administration building, a garage, a boat house, railroad spur tracks with car movers, and paved roadways (see Figures 1A, 1B, & 1C in Appendix 1).

The south terminal (6.30 acres) was completed in December 1995 and operates as a cement distribution facility. It includes a barge mooring structure, a dock, six concrete storage silos, a physical testing lab, a rail unload structure, a shop area, railroad spur tracks with car indexer, a truck wash area, an operations building, and paved roadways (see Figures 1C, 1D, 1E, and 1F in Appendix 1). The north and south terminals are interconnected with an enclosed conveying system for transferring material between the two facilities.

Ash Grove utilizes motorized equipment to conduct daily operations (e.g., pick-up, front end loader, and forklift). These items require daily fueling and lubrication. A 500-gallon double-walled diesel aboveground storage tank (AST) is located at the north terminal on the north side of the garage (see Figure 2B). The tank and dispenser are protected against collision by concrete-filled steel pipe bollards. This tank is equipped with tertiary containment to control drainage and accommodate containment of fuel delivery trucks. Plant mobile equipment is fueled while parked in the diesel delivery truck unloading station. A 15 gallon per minute (gpm) pump located within the secondary containment area transfers diesel from the 500 gallon storage tank to the mobile equipment. Any spills during this fueling operation are contained by the concrete containment pad for the truck unloading station. Storm water collected in the secondary containment system is

[1] *United States Geological Survey, "Geologic Map of Oregon," 1991.*

manually pumped out onto the ground after visual confirmation that it is not contaminated with oil using procedure described in Section 15 of this plan.

Truck and equipment maintenance activities are conducted inside the 7-bay garage. Vehicles are stored under cover in the garage when they are not being used. Ash Grove stores a 300-gallon used oil tank, 55-gallon drums of motor oil and hydraulic oil, and smaller quantities of other petroleum products in the garage. 55-gallon drums are stored within a secondary containment berm. The 300-gallon used oil tank is equipped with a steel secondary containment structure, and is located within the tertiary bermed containment area.

Two hydraulic railcar indexers are located just south of the railcar loading structure. The indexers are used to position railcars for filling. Each indexer has a hydraulic oil reservoir of 220 gallons. The indexers are surrounded by concrete secondary containment of sufficient capacity to contain oil used in each piece of equipment. An additional railcar indexer is located in the basement of the north terminal. This indexer contains 150 gallons of hydraulic oil. The basement of the north terminal consists of concrete walls and a concrete floor. There is no drain or sump in the basement that could contribute to a release. In addition, the indexer is surrounded by a asphalt berm to contain any leaks or spills.

An electrical transformer is located within a containment structure just east of the administrative building. The transformer has an oil capacity of 490 gallons, and is surrounded by concrete curbs designed to prevent any spill originating from this equipment from reaching the nearby catch basin. The dike area consists of a gravel surface, which allows rainwater to infiltrate into the ground. The transformer contains mineral oil with less than 50 parts per million (ppm) polychlorinated biphenyls (PCBs).

Small quantities of gasoline are stored in a containment cabinet in a garden shed that is located north of the 7-bay garage. Containers stored at this location have oil storage capacities less than 55 gallons.

Drainage from the facility occurs as sheet flow, discrete conveyance pathways, or through the storm drainage collection system to the Willamette River. This SPCC plan has been designed to reasonably prevent a discharge of oil to the Willamette River from these discharge points.

The facility is secured by a 6-foot high perimeter chain linked fence. Gates are locked when the facility is not in operation.

Figures 1A through 1F in Appendix 1 contain site diagrams showing the location of major equipment and oil storage locations.

B. Oil Storage Type, Volume and Location:

112.7(3)(i) The plan should contain a list of the oil storage area/use location and what they contain.

Item	ID	Location	Volume (gal)	Contents
1	Diesel Tank	North of 7-bay garage	500	#2 Diesel fuel oil
2	Used Oil Tank	7-bay garage	300	Used oil
3	Up to 10-55-gallon drums	7-bay garage	Up to 550 gallons	New and used lubricants, greases, antifreeze, and solvents
4	Two (2) railcar indexers	South of rail loadout structure	220 (each)	Hydraulic oil
5	One (1) railcar indexer	Basement of north terminal	150	Hydraulic oil
6	Transformer	East of admin. building	490	Transformer mineral oil
7	Garden Shed	North of 7-bay garage	<55	Gasoline

5. DISCHARGE PREVENTION, CONTAINMENT, AND COUNTER MEASURES

A. Discharge Prevention 112.7(a)(3)(ii):

The terminal facility prevents discharges of oil:

- by providing properly designed and installed oil storage, unloading and transfer equipment using where possible fail-safe designs, and
- by training our personnel in the proper inspection, operation and maintenance of the oil handling equipment.

The 500 gallon diesel fuel tank is a double walled tank. Secondary containment for dispensing and delivery operations will provide fail-safe prevention to discharges to water of the US. A spill kit is located in close proximity to the tanks for rapid response to a spill occurrence. Personnel who have been trained in oil handling procedures attend filling at all times. Signs in the area require attended filling, no smoking, and use of truck chocks when fueling mobile equipment or receiving deliveries. Inspections are made of the containment areas and tanks on a monthly basis as described in Appendix 2 of this plan.

The used oil tank and 55-gallon drums located in the 7-bay garage are stored within secondary containment. Secondary containment is of sufficient volume to contain the contents of the single largest tank or storage container within this area. The secondary containment consists of impervious material to prevent the release of oil outside containment.

Monthly inspections are made of the diesel fuel tank, the 7-bay garage area, indexers, and transformer locations in accordance with procedures described in section 9 of this plan. All equipment is maintained in accordance with plant operating and preventive maintenance procedures with which all personnel are trained to understand and implement.

B. Discharge Containment 112.7(a)(3)(iii):

- Storage Tanks. All storage tanks at the Portland terminal and containers are provided with secondary containment.

- Oil Unloading. Bulk transfer of diesel is performed from an unloading station equipped with secondary spill containment large enough to hold the entire contents of the delivery truck.

- Diesel Fueling. Diesel fueling of mobile equipment occurs within secondary containment and is attended during fueling operations.

C. Discharge Counter Measures 112.7(a)(3)(iv-v) & (a)(4):

Anyone who observes an oil leak or spill alerts personnel and reports it to the Terminal Manager or senior person in charge. Personnel have been trained to respond to spills and instructed on the proper use of emergency spill kits. Spill kits are located in the diesel storage area, 7-bay garage, the administrative building shop area, on the main dock, and at the South section maintenance shop. The Terminal Manager or the senior on duty person immediately assesses the severity of the situation and takes action to stop the spill (i.e., turns-off pumps, closes valves, etc.). If the spill is outside a containment area, the facility operations manager is notified immediately. Spills in excess of 42 gallons that occur outside secondary containment or spills that cause any sheen to the river or waters of the state shall be reported to the National Response Center (800-424-8802) and the Oregon Emergency Response System (800-452-0311) within 15-minutes after facility personnel determine either of the preceding two situations have occurred. In addition, if outside assistance is necessary, and emergency response company such as Foss Emergency Services should be contacted. Appendix 3 contains a spill notification form that is to be completed for a reportable spill event.

Spill clean-up techniques vary depending on the location and magnitude of such an event. Recovery may include pumping free oil into a tank truck for transport to a local oil reclaimer, use of marine vessels to facilitate product recovery in the river, absorption of residual oil with commercial absorbents and/or excavation of oily absorbent and soil into a truck for disposal at a permitted disposal location.

For spills from inside containment structures, the Terminal Manager will immediately take all necessary action to locally contain the spill with absorbent materials. The oily absorbent and containment material should be placed in drums or a truck and disposed at a permitted disposal location. Spills in containment areas should be cleaned up promptly by pumping free oil into containers or a truck. If the free oil is not suitable for re-use, it will be shipped off-site to a permitted disposal or recycling facility. If necessary the surface of the containment area should be cleaned with detergent and water. The waste

water should be collected, put in drums or a suitable truck and disposed at a permitted disposal facility.

- Spills of 42 gallons or more of oil that are outside of containment must be immediately reported to the Oregon Emergency Response System (800- 452-0311).

- Oil spills that reach the Willamette River must be immediately reported to the National Response Center (NRC) (800- 452-0311).

The Spill Response Notification Form in Appendix 3 will be used as a checklist for what to report and as a record of what was reported.

D. Emergency Contacts 112./7(a)(3)(vi);

The following is a list of emergency contacts including plant personnel, regulatory authorities and contractors and disposal firms.

Plant Contacts	**Day Time**	**24- Hour**
Terminal Manager	(503) 285-4621	(503) 784-3463
Operations Manager	(503) 247-5424	(971) 563-9504
EHS Manager	(503) 247-5423	(503)545-6056
Control Authorities		
Oregon Emergency Management Service		(800) 452-0311
National Response Center		(800) 424-8802
Cleanup Contractors		
Foss Environmental Services		(800) 337-7455
Waste Disposal Companies		
Oil Re-Refining		(800) 367-8894

6. SPILL HISTORY

In 1992, the north terminal experienced an oil spill incident during the off-loading of the marine vessel Tai Chung. The ship was refueling with bunker type oil that was being transferred from a barge via a transfer hose to 2 tanks on the ship. The spill was reported to and responded by federal and local government agencies and a local cleanup contractor. An incident of this type is not anticipated since Ash Grove will forbid the refueling of marine vessels while moored at the terminal facility.

7. POTENTIAL SPILL PREDICTIONS, VOLUMES, RATES, AND CONTROL

112.7(b) Where experience indicates a reasonable potential for equipment failure (such as loading and unloading equipment, tank overflow, rupture, or leakage), include in your plan a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

Item	Tank ID Source	Type of Failure	Volume (gallons)	Rate (gal/hr)	Dir of Flow	Containment (gallons)
Aboveground tanks						
1	Diesel fuel	Tank rupture, overfill, or leakage	500	>500	Within double-wall and tertiary containment	Double-walled tank >500
2	Waste Oil Tank	Tank rupture, overfill, or leakage	300	>300	Within steel containment	Steel containment = 300
3	55 gallon drums of petroleum product	Drum rupture or puncture	55	>55	Within containment	>300 (minimum required containment volume is 55-gallons)
Process Equipment						
4	Two (2) 220-gallon railcar indexers	Reservoir rupture, hydraulic line rupture	220	>220 (each)	Within asphalt containment	>250 (each)
5	150-gallon railcar indexer	Reservoir rupture, hydraulic line rupture	150	>150	Within concrete containment	>150 (basement of north terminal does not have any drains)
6	Transformer	Catastrophic failure	290	>290	Within concrete containment	>290

8. PREVENTION MEASURES

A. Drainage Control Diversionary Structures and Containment 112.7(c)

112.7(c) Provide appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course. One of the following preventive systems or its equivalent should be used as a minimum:

(i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil;
(ii) Cubing;
(iii) Culverting, gutters or other drainage systems;
(iv) Weirs, booms or other barriers
(v) Spill diversion ponds;
(vi) Retention ponds;
(vii) Sorbent materials.

Item	Tank ID	Location	Diversionary Structures & Containment	
Aboveground Storage containers				
1	Diesel tank	North of 7-bay garage	Primary and tertiary secondary containment	Steel double-walled construction; concrete containment for drainage control; drip trays and adsorbent materials
2	Used oil tank	Inside 7-bay garage	Primary and tertiary secondary containment	Steel containment structure located inside tertiary containment in garage; drip trays and adsorbent materials
3	55 gallon drums	Inside 7-bay garage	Secondary containment	Bermed containment; spill pallets; and/or drip trays and adsorbent materials
4	Rail indexers	Adjacent to rail loadout structure	Secondary containment	Sealed asphalt surface and sidewalls
5	Rail indexer	Basement of North Terminal	Secondary containment	Concrete surface and concrete Sidewalls
6	Transformer	East of Admin. building	Secondary containment	Concrete sidewalls
7	Garden Shed	North of 7-bay garage	Adsorbents	Adsorbent materials

9. INSPECTIONS, TESTING, AND RECORDKEEPING

112.7(e) Inspections tests and records. Conduct Inspections and tests required by this part in accordance with written procedures that you or the certifying engineer develop for the facility. You must keep these written procedures and a record of the inspections and tests, signed by the appropriate supervisor or inspector, with the SPCC Plan for a period of three years. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of the paragraph.

Written inspection procedures (e.g., checklist) and tests should be included in the SPCC Plan. Documentation of the inspections and tests can be maintained in a separate location other than the SPCC Plan as long as their location is referenced as a part of the SPCC Plan for three years.

Inspections of the oil storage and handling facilities at the terminal include: daily visual inspections of storage tanks and piping for leaks or spills, monthly visual inspections of tanks and hydraulic lines, secondary containment and response equipment. Any leaks, spills or maintenance problems are reported to the maintenance department for immediate correction.

The individual inspections are described as follows:

- Daily Visual Inspections – Operators will visually inspect the storage tanks, pumps, piping and valves on a daily basis for leaks or spills and take immediate corrective action to stop the leaks and clean-up spilled oil. These inspections will be part of the routine activities of operations and will not be recorded unless a leak or spill is identified.

- Monthly Inspections – The Terminal Manager or their designee will perform a monthly inspection of the petroleum storage and use areas described in Section 9 using the checklist in Appendix 2. The inspections will be documented and maintained for 3 years in the SPCC file.

40 CFR §112.7(a)(2) allows for flexibility regarding integrity testing requirements of bulk storage containers as long as the alternative provide equivalent environmental protection. Ash Grove is deviating from the integrity testing provisions in §112.8(c)(6) for the 500 gallon diesel storage tank and the 300 gallon used oil tank. The diesel tank is an aboveground, double-walled tank elevated on integral saddles, and all sides of the tank are visible. The diesel tank is contained inside a tertiary containment structure designed to hold the contents of a 1,500-gallon petroleum delivery vehicle. The used oil tank is an aboveground, single-walled steel tank within a steel containment structure that is located within a tertiary containment area inside the 7-bay garage. All sides of the used oil tank are visible. Both tanks are not insulated, and the outside surface of the tank shell can be observed on an on-going basis. These tanks are visually inspected on a monthly basis by personnel who are knowledgeable about facility operations, characteristics of the contents of the tanks, and the type of tank and its components. The inspections focus specifically on detecting any change in conditions or signs of leakage from the tank, piping systems, and appurtenances.

If signs of leakage or deterioration of the tank are observed, the tank will be inspected by someone who is qualified in the Steel Tank Institute or American Petroleum Institute tank inspection methods. The tanks physical configuration combined with the regular inspection schedule ensure that any leaks that may develop will be detected before the leaked fluid can escape the secondary containment structures. This approach demonstrates environmental protection equivalent to the integrity testing required under §112.8(c)(6) because this approach provides appropriate and effective means of assessing the tanks' conditions and suitability for continued service.

10. PERSONNEL TRAINING AND SPILL PREVENTION PROCEDURES

A. Training

112.7(f)(1)&(3) Personnel, training and discharge prevention procedures. (i) Owners and Operators are responsible for providing initial training and annual refresher training for oil handling personnel in the operation and maintenance of equipment to prevent discharges; discharge procedure protocols: applicable pollution control laws, rules and regulations; general facility operations and the contents of the facility SPCC Plan.

Employees involved with operation and maintenance of oil handling equipment receive operating and maintenance training and spill prevention training before they can independently perform the work. Ash Grove provides initial SPCC training for personnel involved with handling petroleum products that includes:

- Operation and maintenance of equipment to prevent discharges;
- Discharge-procedure protocols;
- Applicable pollution-control laws, rules, and regulations;
- General facility operations; and
- Contents of the facility SPCC plan.

Ash Grove provides additional spill training at least annually to facilitate adequate understanding of the SPCC plan. The departmental supervisors shall arrange the SPCC briefings, which shall include the following topics:

- Known discharges or failures, or malfunctioning components; and
- Recently developed precautionary measures.

Records of attendance at training and topics covered are maintained at the facility by the Terminal Manager.

B. Designated person accountable for spill prevention :

112.7(f)(2) Personnel, training and spill prevention procedures. Each facility must designate a person who is accountable for oil spill prevention and who reports to facility management.

The Ash Grove Environmental Health and Safety Manager (Mr. Glenn Dollar) is accountable for discharge prevention, and reports directly to the Portland Operations manager. Mr. Dollar is responsible for ensuring the SPCC-related training is completed. He will either administer the required training or arrange to have it presented by a qualified instructor.

11. SITE SECURITY

A. Fencing:

112.7(g) (1) Security. All plants handling, processing, and storing oil should be full fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

The Ash Grove terminal is surrounded by a 6-foot high chain link fence. There is no fence where the plant site borders the river. The entrances to the terminal facility are gated shut and locked when the facility is unattended.

B. Flow valves locked:

112.7(g) (2) Security. Ensure that the master flow and drain valves and any other valves that will be permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in non-operating or non-standby status.

There are no drain valves or other valves that permit direct outward flow on the bulk storage tanks or containers.

C. Starter controls locked:

112.7(g) (3) Security. Lock the starter control on each oil pump in the 'off' position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

The starter controls for the diesel transfer pump on the diesel tank are located inside the garage. The garage is locked when the facility is not operating or in standby status.

D. Pipeline loading/unloading connections securely capped:

112.7(g)(4) Security. The loading/unloading connections of oil and pipelines should be securely capped or blank-flanged when not in service or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

There are no loading/unloading connections that are not in service or in standby service for an extended period of time. Bulk storage containers are filled and emptied from the top by pumping. There are no loading/unloading pipelines. The fill port to the diesel storage tank is securely locked when not in use.

E. Lighting adequate to detect spills:

112.7 (g)(5) Security. Provide facility lighting commensurate with the type and location of the facility that will assist in the:

(A) Discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by nonoperating personnel (the general public, local police, etc.), and

(B) Prevention of discharges occurring through acts of vandalism

Lighting is provided throughout the facility to help detect any spills in a timely manner. When the facility is unattended, power to the dispensing pump for the diesel fuel is turned off. The on/off switch is located inside the 7-bay garage, which is locked when the facility is not operated.

12. TANK TRUCK UNLOADING OPERATIONS

A. DOT regulations:

The fuel delivery trucks will comply with Department of Transportation requirements and the following procedures when delivering fuel:

- The truck handbrake is set while loading and unloading.
- Wheels are to be chocked
- The truck is attended by a qualified person at all times when it is being unloaded.
- "No Smoking" signs, and grounding and bonding is performed when unloading flammable materials.

- The truck engine is stopped (unless needed for pump operation) when unloading flammable materials.

B. Secondary containment for vehicles:

112.7(h) (1) Facility tank car and tank truck loading/unloading rack (onshore);
Where unloading area drainage does not flow into a catchment basin or treatment facility designed to handle discharges, a quick drainage system should be used for tank truck loading and unloading areas. You must design any containment system to hold at least the maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

This section describes the design and capacity of secondary containment for truck loading/unloading areas including transfer operations related to both aboveground tanks and underground tanks.

Fuel delivery trucks park within an unloading station when transferring diesel fuel to the diesel storage tank. The unloading station is equipped with secondary containment to contain the contents of a 1,500-gallon delivery truck. The containment area will have a manual drain valve to release accumulated stormwater in a controlled manner. Ash Grove has an agreement with the oil supplier that the maximum capacity of a single truck compartment will not exceed 1500 gallons.

On December 2, 2005, USEPA released the *"SPCC Guidance for Regional Inspectors"*. The following text, taken directly from the document, is the USEPA's interpretation for the applicability of Section 112.7(h):

"Section 112.7(h) applies to areas at regulated facilities where traditional loading/unloading racks for tank cars and tank trucks are located. Loading and unloading racks are subject to the specific secondary containment requirements in §112.7(h)(1).

EPA inspectors should evaluate compliance with the requirements of §112.7(h) for equipment traditionally considered to be "loading racks." While the SPCC rule does not provide a definition for the term "rack," the type of equipment for which these requirements would typically apply has the following characteristics:

- *The equipment is a permanent structure for loading or unloading a tank truck or tank car that is located at a regulated facility.*
- *The equipment may be comprised of piping assemblages, valves, loading arms, pumps, or a similar combination of devices.*
- *The system is necessary to load or unload tank trucks or tank cars.*
- *The system may also include shut-off devices and overfill sensors.*

EPA clarified that the provisions of §112.7(h) apply only in instances where a rack structure is present.

Loading racks can be located at any type of facility; however, the loading areas associated with a production tank battery generally do not have the equipment described above, which is often associated with a "loading rack." Loading/unloading areas utilizing a single hose and connection or standpipe are not considered "racks.""

C. Warning or barrier system for vehicles:

112.7(h) (2) Facility tank car and tank truck loading/unloading rack (onshore);
Provide an interlocked warning light or physical barrier system, warning signs, wheel chocks or vehicle break interlock system in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

Wheels chocks are used when fuel deliveries are made. Deliveries are made to the tank from pumping from the vehicle to the tanks by a fill spout in the top. Warning signs will be posted in the delivery area to prevent vehicular departure before disconnecting fill hose. Prior to filling and departure, the lower-most drain and all connections of the supply vehicle are inspected for discharges, and if necessary, are tightened, adjusted, or replaced to prevent a discharge in transit.

13. REPAIRED, ALTERED, OR RECONSTRUCTED OIL TANKS

112.7(i) If a field constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service that might affect the risk of a discharge due to brittle fracture or has discharged oil or failed due to brittle fracture failure the Owner or Operator must evaluate the risk and take appropriate action.

If repairs, alterations, reconstruction or change of service occur for the bulk oil storage tanks, the Terminal Manager will have a qualified person assess the risks of failure.

14. CONFORMANCE WITH STATE RULES, REGULATIONS, AND GUIDELINES

112.7(j) In addition to the minimal prevention standards listed under this section, include in your Plan a complete discussion of conformance with the applicable requirements and other effective discharge prevention and containment procedures listed in this part or any applicable more stringent State rules, regulations, and guidelines.

Aboveground storage tanks (ASTs) in the State of Oregon are regulated by the USEPA and Oregon's Uniform Fire Code. These regulations apply to ASTs that contain petroleum products, such as lubricating oils; heating oil; and motor fuels which include gasoline, diesel and alcohol/blend fuels. The Oregon Department of Environmental Quality (DEQ) does not regulate ASTs.

Oil spills that contact or are likely to contact waters of the state (coastal waters, lakes, rivers, groundwater [i.e., wells, drain fields, and sewers], and stormwater) must be reported within one hour to the Oregon Emergency Response System (OERS) at 1-800-452-0311 or 1-800-OILS-911, and to the National Response Center at 1-800-424-8802.

Oil spills to land that are greater than 42 gallons and that are not likely to contact waters of the state must be reported to the OERS at 1-800-452-0311 within one hour. Land includes: soil, gravel, and concrete or asphalt pads, but not secondary containment or spills to the indoors that do not have the potential to reach waters of the state (no drains or other release points).

15. FACILITY DRAINAGE

A. Drainage Control From Secondary Containment:

112.8(b) (1) Facility drainage. Restrain drainage from diked storage by valves to prevent a discharge into the drainage system or facility effluent treatment system, except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps and must inspect the accumulation before starting, to be sure no oil will be discharged.

This section describes drainage in areas of the facility which have localized secondary containment. Localized containment is specifically designed to retain drainage in operating areas of a facility (e.g., AST farm, truck loading/unloading rack, pipeline areas).

Item	Tank ID Source	Secondary Containment
1	Diesel fuel tank	Double-walled tank, secondary containment around tank and area where trucks park to deliver fuel and dispensing of fuel to equipment
2	Used oil tank	Inside a metal secondary containment box and tertiary berm containment in the 7-bay garage storage area
3	Drum storage area	Secondary containment berm around the drum storage area inside the 7-bay garage Area
4	Railcar indexers	Secondary containment provided around hydraulic oil reservoirs
5	Railcar indexer	Inside basement of north terminal, surrounded by concrete curb
5	Transformer	Secondary containment provided around transformer

B. Valves used on diked area storage:

112.8(b)(2) Facility drainage (onshore). Use valves of manual, open-and-closed design, for the drainage of diked areas. You must not use flapper-type drain valves to drain diked areas. When facility drainage drains directly into water courses and not into wastewater treatment plants, retained storm water must be inspected before drainage.

Stormwater is removed from containment areas at the terminal facility with either manually operated pumps or manual, open/closed drain valves. After visual inspection and confirmation that storm water is not contaminated, storm water is pumped out or drained from the containment. Appendix 4 contains the standard operating procedure for inspection and pumping or draining of storm water from the secondary containment areas.

C. Plant drainage systems from undiked areas:

112.8(b)(3) Facility drainage (onshore). Facility drainage systems from undiked areas with the potential for discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) should be designed, if possible, to flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

There is no piping at the terminal facility that would cause a release of petroleum outside secondary containment with the exception of permanent hydraulic and lubrication systems on stationery and mobile equipment. The Ash Grove Terminal has a comprehensive preventative maintenance program to keep these systems in optimum operating conditions. The probability for failure of these types of systems is very low.

D. Final discharge of drainage:

112.8 (b) (4) Facility drainage (onshore) If facility drainage is not engineered as in 112.8(b)(3), equip the final discharge of all in plant ditches should be equipped with a diversion system that would, in the event of an uncontrolled spill, return the oil to the plant.

All potential sources of oil release are adequately contained or controlled.

E. Facility Drainage Systems and Equipment

112.8 (b)(5) Facility drainage (onshore). Where drainage waters are treated in more than one treatment unit, and such treatment is continuous, and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps. Whatever techniques you use, you must engineer facility drainage systems to prevent a discharge in case there is an equipment failure or human error at the facility.

There are no treatment units used for drainage water from oil storage areas at this facility.

16. BULK STORAGE TANKS/SECONDARY CONTAINMENT

A. Storage Tank Materials of Construction

112.8(c)(1) Bulk storage tanks (onshore). No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

Describe in detail the construction of all aboveground storage tanks and their compatibility with the liquids that they hold. Identify which standards (e.g., API standards) of construction have been followed and features of the individual tanks (e.g., double bottoms, coatings).

The bulk storage containers for diesel and used oil are carbon steel construction and have been in service for many years without visible leaks or corrosion. Although the tank design standards are not available, the fact that the materials stored (i.e., diesel and used oil) are not corrosive and there has been no visible evidence that the tanks are improperly designed, it is reasonable to assume that the tanks meet the requirements of 112.8(c)(1).

B. Diked area construction and containment volume for storage tanks:

112.8(c)(2) Bulk storage tanks (onshore). Construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container plus sufficient freeboard to contain precipitation. You must insure that the diked areas are sufficiently impervious to contain discharged oil. Dikes, containment curbs, and pits are commonly employed for this purpose. You may also use an alternative system consisting of a drainage trench enclosure that must be arranged so that any discharge will terminate and be safely confined in a facility catchment basin of holding pond.

All petroleum storage areas are surrounded by secondary containment. The bulk storage tanks for diesel and used oil have tertiary containment. Secondary containment features are described in Section 7 and Section 8.

C. Diked area, inspection and drainage of rainwater:

112.7(c)(3) Bulk storage tanks (onshore). Don't allow drainage of rainwater form the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, bypassing the in plant treatment system unless you:

1. *Normally keep the bypass valve sealed closed.*
2. *Inspection of the retained rainwater to ensure that its presence will not cause a discharge as described in 112.1(b).*
3. *Open the bypass valve and resealed it following drainage under responsible supervision.*
4. *Keep adequate records of such events.*

This section should include a detailed discussion of the inspection and drainage procedures used for diked areas and how drainage discharge is documented (e.g., checklist noting the appearance of the water, time of valve opening, time of valve closing, signature of inspector, etc.) This section should also include a discussion of an alternate method of drainage to be employed if an oil sheen or oil accumulation is observed.

After visual inspection of the containment for the absence of free product, oil sheens, or iridescent colors, storm water is drained or pumped out of the containment to the ground adjacent to the containment. The drain valves or pumps are manually operated. If the storm water is contaminated with oil, the oil is removed with absorbent pads before pumping or draining the water from the containment. Records of secondary containment drainage are kept in the North Terminal office. Secondary containment drainage procedures and a log sheet are included in Appendix 4.

D. Buried metallic storage tanks integrity testing:

112.8(c)(4) Buried metallic storage tank integrity testing. Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

There are no buried metallic storage tanks at this facility.

E. Partially buried or bunkered metallic storage tank corrosion protection:

112.8(c)(5) Do not use partially buried or bunkered metallic tanks for the storage of oil, unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

There are no partially buried metallic tanks at this facility.

F. Aboveground tank periodic integrity testing:

112.7(c)(6) Bulk storage tanks (onshore). Test each aboveground container for integrity on a regular schedule, and whenever you make material repairs. The frequency of the type of testing must take into account container size and design (such as floating roof, skid mounted, elevated, or partially buried). You must combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of nondestructive shell testing. You must keep comparison records and you must also inspect the containers supports and foundation. In addition, you must frequently inspect the outside of the container for signs of deterioration, discharges, or accumulation of oil inside diked areas. Records of inspections and tests kept under usual and customary business practices will suffice for purposes of this paragraph.

Per Section 9, Ash Grove Cement is deviating from the integrity testing requirements. Section 9 provides support for deviation from integrity testing based on environmental equivalence. Tanks are observed daily by facility personnel during operating hours. Formal inspections are conducted monthly to examine the exterior of the tanks and the piping. These monthly inspections are documented using the report form, which can be found in Appendix 2.

G. Control of leakage from internal heating coils:

112.8(c)(8) control of leakage from internal heating coils. Control leakage through defective internal heating coils by monitoring the steam return and exhaust lines for contamination from internal heating coils that discharge into an open watercourse, or pass the steam return or exhaust lines through a settling tank, skimmer, or other separation or retention system.

There are no steam heating coils on any tanks or tanks systems at this facility.

H. Tank installation fail-safe engineered:

112.8(c)(8) Bulk storage tanks (onshore). Engineer or update each container installation in accordance with good engineering practice to avoid discharges. You must provide at least one of the following devices:

i. High liquid level alarms with an audible or visual signal at a constantly attended operation or surveillance station. In smaller facilities an audible air vent may suffice.

ii. High liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

iii. Direct audible or code signal communication between the tank gauge and the pumping station.

iv. A fast response system for determining the liquid level of each bulk storage container such as digital computers, telepulse, or direct vision gauges. If you use this alternative, a person must be present to monitor gauges and the overall filling of bulk storage containers.

v. *You must regularly test liquid level sensing devices to ensure proper operation.*

The following table identifies the fail-safe engineering for the storage tanks. The level-indicating devices are monitored during filling or transfer operations.

Item	Fail-safe Engineering
1	Automatic High liquid level pump cutoff fail-safe device. Device is tested regularly.
2	300 gallon used oil tank used only for collection of used oil prior to offsite recycling. Filling is a manual operation using 5-gallon transfer containers. The tank is equipped with a direct sight level indicator.

I. Observation of disposal facilities for effluent discharge:

112.7(c)(9) Bulk storage tanks (onshore). Observe effluent treatment facilities frequently enough to detect possible system upsets that could cause a discharge as described in 112.1(b).

This requirement does not apply to the Ash Grove terminal since there are no effluent treatment facilities that could cause a discharge as described in 112.1(b).

J. Visible oil leak corrections from tank seams and gaskets:

112.8(c)(10) Bulk storage tanks (onshore). Promptly correct visible which result in lose of oil from the container, including but not limited to seams, gaskets, piping, pumps, valves, rivet, and bolts. You must promptly remove any accumulations of oil in diked areas.

Visible oil leaks are reported to the Terminal Manager through a work order system, so that they can be fixed immediately. Operations personnel inform the Terminal Manager

repairs have been completed or if additional time is needed to obtain parts and remedy the leak. Measures will be taken to minimize and mitigate any leaks, while awaiting repair. Any spilled oil is cleaned up immediately by the operations personnel. Oil spill cleanup supplies are located in administration shop building, the 7-bay garage, and adjacent to the diesel storage tank.

K. Appropriate position of mobile or portable oil storage tanks:

112.8(c)(11) Bulk storage tanks (onshore). Position or locate mobile or portable oil storage containers to prevent a discharge

55-gallon drums are considered to be mobile bulk storage tanks. Ash Grove stores 55-gallon drums within a secondary containment inside the 7-bay garage.

17. FACILITY TRANSFER OPERATIONS

A. Buried piping installation protection and examination:

112.8(d) (1) Facility transfer operations, pumping, and facility process (onshore). Provide buried piping that is installed or replaced on or after August 16, 2002, with a protective wrapping and coating.

This does not apply to the Ash Grove terminal since there is no buried oil piping at this facility.

B. Not-in-service and standby service terminal connections:

112.8(d) (2) Facility transfer operations, pumping, and in plant process (onshore). Cap or blank-flange the terminal connection at the transfer point and mark it as to origin when piping is not in service or is in standby service for an extended time.

There are no terminal connections on storage tank systems that are not in service or in standby service for an extended amount of time.

C. Pipe Supports design:

112.8(d) (3) Facility transfer operations, pumping, and in plant process (onshore). Properly design pipe supports to minimize abrasion and corrosion and allow for expansion and contraction.

There are no oil pipelines or pipe supports at this facility.

D. Aboveground valve and pipeline examination:

112.8(d) (4) Facility transfer operations, pumping, and in plant process (onshore). Regularly inspect all aboveground valves, piping, and appurtenances. During the inspection you must assess the general condition of items, such as flange joints, expansion joint, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces. You must also conduct integrity and leak testing of buried piping at the time of installation, modification, construction, relocation, or replacement.

Monthly observations are made of areas containing petroleum products in accordance with procedure described in Appendix 2.

E. Aboveground piping protection from vehicular traffic:

112.8(d) (5) Facility transfer operations, pumping, and in plant process (onshore). Warn all vehicles entering the facility to be sure that no vehicle will endanger above ground piping or other oil transfer operations

All contractors and employees are provided site specific hazard awareness training. Contractors delivering fuel and petroleum products are trained on Ash Grove procedures for handling and transferring petroleum products at the facility. Bollards are used to protect the diesel tank from vehicular damage.

APPENDIX 1

SITE DIAGRAMS

APPENDIX 2

VISUAL INSPECTION CHECKLIST FOR PETROLEUM USE AND STORAGE AREAS

Sign and Date:_____

Monthly Visual Equipment and Storage Area Inspection Checklist
7-bay garage petroleum storage area Check tanks and containers for leaks, specifically looking for: Check (√) if OK, (X) If not ___ Drip marks, (evidence of overflow) ___ Discoloration on the tanks, ___ Puddles of oil on the ground, ___ Signs of corrosion or rust on 300-gallon used oil tank, ___ Cracks, or ___ Condition of 55-gallon drums ___ Condition of other containers Check floor for: ___ Cracks, ___ Discoloration, ___ Puddles of oil on the ground, ___ Settling ___ Condition of secondary containment Check Spill control equipment ___ Adequate inventory, readily accessible, spill kits in place at 7-bay garage, fueling area and admin shop building
500-gallon diesel fuel tank and containment area Check tanks for leaks, specifically looking for: Check (√) if OK, (X) If not ___ Drip marks, (evidence of overflow) ___ Discoloration on the tanks, ___ Puddles of oil on the ground, ___ Signs of corrosion or rust, ___ Cracks ___ Presence of liquid inside double-walled tank Check floor and containment for: ___ Cracks, ___ Discoloration, ___ Puddles of oil on the ground, ___ Settling, ___ Gaps between the tank and the foundation ___ Damage caused by vegetation roots. ___ Localized dead vegetation. ___ Accumulated stormwater, evidence of sheen
Railcar indexer hydraulic reservoirs (2 each, east and west of railcar load-out tracks) and transformer east of admin shop area: Drip marks, (evidence of overflow) ___ Discoloration on the hydraulic reservoir or transformer, ___ Puddles of oil on the ground, ___ Condition of hydraulic hoses ___ Signs of corrosion or rust, ___ Cracks ___ Presence of liquid inside double-walled tank Check floor and containment for: ___ Cracks, ___ Discoloration, ___ Puddles of oil on the ground, ___ Settling, ___ Gaps between the tank and the foundation ___ Damage ___ Localized dead vegetation. ___ Accumulated stormwater, evidence of sheen ___ Discoloration on piping, ___ Signs of seepage at valves, flanges and seals

Corrective action:_____

APPENDIX 3

SPILL NOTIFICATION FORM

This form is to be completed and notification made when a spill of petroleum occurs outside of secondary containment structure in excess of 42 gallons **or** when a spill causes a sheen to waters of the US. Oral notifications bust be made within 15 minutes of determining a reportable event.

SPILL RESPONSE NOTIFICATION FORM*

Report the following information to National, State and Local Agencies.

National Response Center:	(800) 424-8802	Contact:	Time:
Oregon Emergency Management Service	(800) 452-0311	Contact:	Time:
Local Agencies	911	Contact:	Time:

Reporter's Name:_____ Reporter's Date: ____

Company:_____ Position:_____ Phone:_____

Address:_____ City:_____ State:___ Zip:_____

Were materials released? (Y/N)__ **Responsible party** name:__ Contact: Y/N Phone:_____

Has Release Migrated Offsite? (Y/N)__ Organization:_____

INCIDENT DESCRIPTION

Location of Incident:_____ Address:_____

Nearest City:_____ Distance to City:_____

Source and/or Cause of Incident: Date:_____ Time:_____ (AM/PM)

Description:_____

Direction of Spill Movement:_____ Speed Estimate_____

Failed Container: Type: (Above Ground/ Below Ground/ Unknown) Other:_____

Container Capacity:_____ Facility capacity:_____

Environmental Conditions: Wind Direction:_____ Wind Speed:_____

Current Direction:____ Current Speed:_____

MATERIAL DESCRIPTION

Material type:	Material Released:	Quantity:	Released to Water:	Quantity:
1.		(gal)	(Y/N)	(gal)
2.		(gal)	(Y/N)	(gal)
3.		(gal)	(Y/N)	(gal)

RESPONSE ACTION

Description of Actions Taken to Correct, Control, or Mitigate Incident:

_____

_____

Discharge Stopped: (Y/N) Rate of Continuing Release:

Impact Number of Injuries:_____ Number of Deaths:

Evacuations: (Y/N) Number Evacuated:

Damage: (Y/N) Damage Estimate in Dollars:_____

Description of Damage:

Use reverse side to record information not reported elsewhere.

* It is not necessary to wait for all information before calling the NRC.

APPENDIX 4

PROCEDURE FOR REMOVING RAINWATER FROM SECONDARY CONTAINMENT

Removing Rainwater from Oil Storage Containments

Standard Operating Procedure

This procedure provides instruction on removing rainwater from Oil Storage Area containments. Workers who will do the actual observation and pumping must be trained by the Terminal Manager or their designee. No one will be permitted to do the observation and pumping unless they have been trained **and the training is documented**.

All rainwater must be removed by opening the drain valve or with a portable pump. It is not permitted to leave a drain valve open or remove rain water with an automatically operated "sump pump".

Before any water can be pumped from the containment structure it must be inspected for any signs of contamination. Signs of contamination by oil may included discoloration, but usually is a visible sheen on the surface. **Do not pump any water that shows any signs of visible oil contamination.** Contact the Terminal Manager if you find any oil contamination.

Remove any oil with absorbent pads, then drain or pump clean water from the containment. Document corrective action taken in the comments section of the log in the event that oil contamination is observed.

Storm Water Transfer Log
Oil Storage/Use Containment Areas

Date	Name of observer	Observation (√) if OK; (x) if not, specify corrective action. Check for evidence of discolored water, visible sheen, floating oil, etc.				Corrective action taken if visual quality is not acceptable
		Diesel fueling area	Railcar indexer (east)	Railcar indexer (west)	Transformer adjacent to admin bldg.	

ASH GROVE CEMENT COMPANY
PORTLAND TERMINAL

Stormwater Pollution Control Plan
Permit File # 107213

SIC Code 5032
Cement Distribution

Site Operator
Ash Grove Cement Company
3737 N Port Center Way
Multnomah County
Portland, Oregon 97217

SWPCP Prepared by
Glenn Dollar
Ash Grove Cement Company
503-247-5423
Glenn.dollar@ashgrove.com

Plan Date
March 31, 2012

Ash Grove Cement Company
Stormwater Pollution Control Plan

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information. The information presented is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Responsible Corporate Officer:

Signature: _____ Date: _____

Printed Name: Gary Wright

Title: Portland Operations Manager

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Appendix 4	Monthly Stormwater Pollution Prevention Inspection Form
Appendix 5	Spill Prevention Control and Countermeasure Plan (SPCC)
Appendix 6	Stormwater Pollution Control Plan (SWPCP) Checklist

1.0 SITE DESCRIPTION

The Ash Grove Cement Company Portland Terminal site is best described as a cement distribution terminal. The facility is rectangular in shape and encompasses approximately 14.52 acres. The facility is located on the east bank of the Willamette River approximately ten miles upstream of the confluence of the Willamette River into the Columbia River and one mile northwest of the Fremont Bridge (Please refer to the General Location Map which may be found at the end of this document labeled as Appendix 1). The facility is bordered on the west by the Willamette River, north by the City of Portland combined sewer overflow project, and east and south by Union Pacific railroad. The South section of the terminal was purchased in 1995 from UPRR. The North section of the property was purchased in 2005 from Goldendale Aluminum Corporation. The site has always been used by Ash Grove Cement Company for the purpose of cement importing and exporting.

1.1 INDUSTRIAL ACTIVITIES

The industrial activities at the site are best described as cement distribution. Cement is transported to the terminal by rail or ocean going vessel. The cement is off-loaded and placed into silos or tanks. The cement is transferred from the silo or tank into trucks or railcars for shipment. All transfers of material are conducted within contained systems such as bucket elevator, air slide, pipe conveyor, or air lift. All equipment utilized for the transfer of cement is equipped with a dust collection system.

External building construction materials consist largely of sheet metal throughout the terminal. The structures with sheet metal construction are the garage, administration building, rail car loading building, and the rail car unloading building. The tanks at the North side are constructed of steel and coated with paint. The silos at the South side are concrete. The pipe conveyor, which extends from the North ship unloading area to the South truck loading area, has a painted sheet metal cover and corrugated metal side covers.

Topographic details for the site may be found on site maps which may be found attached to this document and labeled as Appendix 2 Site Maps.

1.2 SIGNIFICANT MATERIALS

The facility does not perform outdoor manufacturing, treatment, or storage of materials at this site. Cement is unloaded, stored, and shipped. The cement is transferred within contained systems to prevent contact with water and contain particulate matter. The cement is stored in silos and tanks. Cement is not used or treated on site.

Small quantities of cement from cleaning activities may be stored for short periods of time within an ecology block containment area and shipped off site for disposal at a landfill as needed.

The terminal contains dumpsters at both the North and South sections for garbage and recycling materials.

2.0 General Location Map

The General Location Map may be found attached and labeled as Appendix 1 General Location Map.

3.0 Site Map

The Site Maps may be found attached to this document and labeled as Appendix 2 Site Maps. **Note:** The site maps contain areas labeled as Basin 1 through Basin 6. Basin 1 is connected to the outfall. Basins 2 through 6 contain sufficient pervious areas for on-site infiltration of stormwater.

4.0 Potential Pollutants

4.1 Drainage Basin 1

Pollutants with a potential to impact stormwater in drainage basin 1 are as follows; cement dust from site operations, grease and oil from mobile equipment and machinery operating in the area, hydraulic fluid from rail car indexers, grease and oil from rail cars, and heavy metals (copper, lead, nickel, zinc) from structures and mobile equipment. Drainage Basin 1 stormwater flows to the outfall. The outfall is also the sampling point for the terminal. The stormwater flowing to the outfall is continuously analyzed for pH and if necessary, the pH is adjusted to within permitted limits prior to discharge.

4.2 Drainage Basin 2

Pollutants with a potential to impact stormwater in drainage basin 2 are as follows; cement dust from site operations, petroleum products from mobile equipment and machinery operating in the area, hydraulic fluid from rail car indexers, grease and oil from rail cars, and heavy metals (copper, lead, nickel, zinc) from structures and mobile equipment. Stormwater within drainage basin 2 infiltrates into pervious materials such as grass or rock. Drainage basin 2 does not flow to an outfall.

4.3 Drainage Basin 3

Pollutants with a potential to impact stormwater in drainage basin 3 are as follows; cement dust from site operations, petroleum products from mobile equipment and machinery operating in the area, hydraulic fluid from rail car indexers, grease and oil from rail cars, and heavy metals (copper, lead, nickel, zinc) from structures and mobile equipment. Stormwater within drainage basin 3 infiltrates into pervious materials such as grass or rock. Drainage basin 3 does not flow to an outfall.

4.4 Drainage Basin 4

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Pollutants with a potential to impact stormwater in drainage basin 4 are as follows; cement dust from site operations, petroleum products from mobile equipment and machinery operating in the area, grease and oil from rail cars, and heavy metals (copper, lead, nickel, zinc) from structures and mobile equipment. Stormwater within drainage basin 4 infiltrates into pervious materials such as grass or rock. Drainage basin 4 does not flow to an outfall.

4.5 Drainage Basin 5

Pollutants with a potential to impact stormwater in drainage basin 5 are as follows; cement dust from site operations, petroleum products from mobile equipment and machinery operating in the area, hydraulic fluid from rail car indexers, grease and oil from rail cars, and heavy metals (copper, lead, nickel, zinc) from structures and mobile equipment. Stormwater within drainage basin 5 infiltrates into pervious materials such as grass and rock. Drainage basin 5 does not flow to an outfall.

4.6 Drainage Basin 6

Drainage basin 6 extends from the top of bank to the water level and out from the bank into the river. Drainage basin 6 extends from the North property boundary to the South property boundary. With the exception of Drainage basin 1 which contains the terminal site outfall, the river bank and areas within 25 feet of the top of bank are composed mainly of grass, trees, shrubs, rock and soil. The potential pollutants outlined in the narrative above referring to drainage basins 1 through 5, has a potential to impact drainage basin 6.

5.0 Impervious Area

Drainage Basin 1, 2, and 3 impervious areas, including all roofed and asphalt-paved areas, account for 1.54 acres of the total 8.22 acres, or approximately 19 percent of the area. Note that Drainage Basin 1 and 3 areas include a portion of the Willamette River beyond the low water line. Drainage Basin 4 and 5 impervious areas account for 1.59 acres of the total 6.30 acres, or approximately 25 percent of the area.

Drainage patterns for each basin are shown on Figures 3A through 3F Site Maps, with arrows indicating local flow patterns of stormwater runoff. The Site Maps may be found attached to this document and labeled as Appendix 2 Site Maps.

6.0 Receiving Waters

The facility lies within the Lower Willamette Basin. Stormwater from the Ash Grove Cement Company terminal is discharged to the Willamette River through an outfall located on site. Stormwater from much of the site infiltrates directly into the ground through graveled or grassy areas.

7.0 Monitoring Locations

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The facility contains one outfall. The location of the outfall may be found on Figure 3B Site Map which can be found attached to this document in the section labeled Appendix 2 Site Maps. The sampling point for this outfall is located at the end of the pipe and labeled on Figure 3B Site Map as Outfall (Sample Point).

8.0 Site Controls – Best Management Practices

Ash Grove is implementing the following structural and operational Best Management Practices (BMPs) to meet the benchmarks specified in the Permit. Existing BMPs will be modified or additional BMPs will be implemented if the facility stormwater quality does not meet the benchmarks specified in the Permit. The type and scope of any additional BMPs will depend on the chemical(s) of concern, their respective source(s), concentration(s), and other pertinent information.

- All trucks are loaded under cover. All load spouts are equipped with dust collection systems. All trucks are required to go through a water rinse process prior to leaving the terminal. The wash water is collected and the pH is monitored and adjusted as needed prior to discharge into a vegetative swale where the water infiltrates into the ground. Wash water does not enter the stormwater system. The truck wash operation is permitted under a WPCF Permit 1700B and is not covered by the NPDES permit. Maintenance of equipment (e.g., oil changing, hydraulic line maintenance) is not conducted in the truck wash area.

- All rail cars are also loaded and unloaded under cover. Rail car load spouts and unloading boots are equipped with dust collection systems.

- Fueling operations for motorized equipment is conducted at the fueling station adjacent to the garage. The 500-gallon, double-walled diesel AST is located on the outside north wall of the garage. Secondary containment has been added to the fueling area to contain 110 percent of the capacity of the fuel tank. The tank is protected from heavy traffic and vehicles by concrete-filled steel pipe bollards. A cover has been added to the area to protect the hose, pump, and fill nozzle from rain. The fill nozzle is also equipped with a catch pan. The area is posted with signage indicating the practice of topping off is not allowed.

- Leaks and spills, including oils, fuels, and dust from site operations, are promptly contained and cleaned up. Spill-response kits are strategically located throughout the plant to facilitate expeditious cleanup.

- Stormwater pH is monitored and if necessary adjusted to within permit limits by use of a carbonic system prior to discharge to the outfall.

- The terminal has purchased a Gap Vax portable vacuum system to provide an exemplary method of cleanup if a spill should occur.

- Stormwater drains are equipped with filters and additionally pads for absorption of grease and oils. The storm drain filters are checked monthly and replaced on an as needed basis. The storm drains and the stormwater treatment vault are vacuumed by an outside vendor on an as needed basis.

- An area inside the garage (Please refer to Appendix 2 Site Map 3B) is used for storing maintenance materials for machinery and mobile equipment. These materials consist of but are not limited to varying grades of oil, greases, hydraulic fluids, and antifreeze. Used oil generated as a result of site operations is temporarily stored inside the garage in a 300-gallon waste oil AST. All storage containers are provided with secondary containment. The maintenance materials storage area located inside the garage and is not exposed to the weather.

- A local waste-oil company is retained as required to pick up all waste-oil products. The waste-petroleum products are recycled and the absorbent pads properly disposed of offsite. Accumulated oil is recycled through licensed, certified processors.

- Site roadways are paved to eliminate erosion in those areas. Unpaved areas are planted with grass, shrubs, and trees, or contain rock materials to prevent erosion, control sediment, and to provide areas for stormwater infiltration.

- All trash bins must be covered to prevent rain water from entering the container. All trash bins are located on impervious surfaces.

- A sediment or silt fence is installed to control sediment runoff any time sediment is disturbed on site with a potential to affect stormwater quality.

- Storm drains are labeled. Spill kits are provided with emergency storm drain covers.

9.0 Procedures and Schedules

9.1 Spill Prevention and Response Procedures

Ash Grove will make every effort to reduce the possibility of spills. In the unlikely event of a spill, immediate response is required to prevent the spill from entering the stormwater system. The following action will take place in the event of a spill:

- Immediately assess the situation.

- If the spill is minor (e.g., can be contained and cleaned with minimal effort):

  – Proceed with cleanup and report the event to the environmental manager as soon as reasonably possible. Response actions may include pumping the material into containers or using absorbent material to contain the spill, or both. Spill response kits consisting of floor sweep, oil booms, and emergency storm drain covers are strategically located throughout the plant to facilitate expeditious cleanup. Floor

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sweep (e.g., kitty litter) and booms may be used to absorb liquid spills. Spills that are in close proximity to storm drains may be contained by placing booms, emergency storm drain covers, and floor sweep around the storm drain.

- The material used to contain/clean the spill will be disposed of in containers provided specifically for this purpose. Spill drums (salvage drums) are located in the seven bay garage.

- Report the event to management.

- If the spill is beyond the ability of a single employee to control, notify management and your supervisor immediately.

The facility has a Spill Prevention, Control, and Countermeasure Plan which may be found attached to this document and labeled as Appendix 5 SPCC.

9.2 Preventative Maintenance Procedures

A preventive-maintenance program is implemented at the terminal site and summarized below:

- Inspections of areas where potential spills may occur (e.g., loading buildings, equipment-fueling station, truck-wash area, equipment-maintenance area, etc.) are conducted monthly. Monthly inspections are documented. The Monthly Stormwater Pollution Prevention Inspection Form may be found attached to this document and labeled as Appendix 4.

- Inspections of the stormwater system, including storm drains, secondary containment, vaults, outfall, roof drain downspouts, etc. are conducted monthly. Documentation is required

- Emergency spill kits are inspected monthly. Supplies are replenished during inspections as needed. Inspection documentation is required.

- Storm drains are inspected at a minimum on a monthly basis. Storm drain filters and oil absorbing pads are replaced on an as needed basis. The storm drains are vacuumed by an outside vendor to remove sediment and debris as needed. Monthly inspections are documented on the forms provided in Appendix 4.

- Pre-operational mobile equipment inspections are required on all mobile equipment. The inspections include checking for grease, oil, fuel, and coolant leaks. Equipment found to not be in good working order is taken out of service. Documentation of the inspection is required.

- Stationary and mobile equipment not in operation is inspected monthly as part of the monthly stormwater pollution prevention inspection procedures. The inspections are documented and made available during inspections.

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- The diesel AST-secondary containment area is inspected monthly and cleaned as needed. The inspections are documented and made available during regulatory inspections.

- All indexers, which are provided with secondary containment and rail car movers, are inspected at a minimum on a monthly basis. Documentation of the inspection is required.

- All dust collection systems are visibly monitored at a minimum on a monthly basis for any sign of emissions. Dust collection systems found to not be performing as required are immediately taken out of service and repairs are initiated. Documentation of the inspection is required.

- Garbage and recycling service is provided on a regular basis by an outside vendor. All light bulbs, batteries, and electronic equipment is collected and sent to an offsite vendor for disposal or recycling. Disposal of batteries, bulbs and electronics is arranged on an as needed basis.

9.3 Employee Education Schedule

Ash Grove Cement Company conducts annual training in Stormwater Pollution Prevention to all employees. Newly hired employees are required to be trained within the first 30 days of employment and annually thereafter. A document has been prepared for facilitating the training. This document may be found attached labeled as Appendix 3 Employee Education Document. All employees are required to sign the training document and verify understanding of the training they receive. The signed document is made available during site inspections.

10.0 Monitoring Information

As required by Schedule B of the 1200-Z permit, Ash Grove Cement Company will collect two samples on or after July 1, and on or before December 31, and two samples on or after Jan 1 and on or before June 30, and at least 14 days apart, during a storm water runoff event when runoff is occurring from the site. The monitoring must occur during the first 12 hours of a stormwater discharge event. The samples will be analyzed for the parameters specified in the facility Permit and compared to the respective benchmarks set forth in the permit and listed below.

Parameter	Benchmark	Minimum Frequency	Sample Type
Total Copper	0.02 mg/l	Four times per Year *	Grab
Total Lead	0.04 mg/l	Four times per Year *	Grab
Total Zinc	0.12 mg/l	Four times per Year *	Grab

pH	5.5-9.0 Std Units	Four times per Year *	Grab
Total Suspended Solids	100 mg/l	Four times per Year *	Grab
Total Oil and Grease	10 mg/l	Four times per Year *	Grab
Cadmium		Four times per Year * **	Grab
Chromium		Four times per Year * **	Grab
Nickel		Four times per Year * **	Grab

* Two samples on or after July 1 and before December 31, and two samples after January 1 and on or before June 30.

** First two years of permit coverage only.

Ash Grove collects samples at one representative sampling location identified on Figure 3B Site Map as Outfall (Sample Location). The site map identifying the location of the outfall may be found attached to this document as Appendix 2 Site Maps, Site Map 3B. The laboratory analytical results will be logged and reported to the DEQ using the Discharge Monitoring Report Form provided by ODEQ.

Ash Grove performs visual observations on a monthly basis, if a storm event has occurred, to identify oil and grease sheen and floating solids. Ash Grove also measures temperature monthly during the visual observations. Visual monitoring is completed at the Outfall sampling location. The results are logged on the Monthly Storm Water Inspection Log and made available for inspection during site inspections.

A monitoring waiver may be obtained for individual parameters after four consecutive samples are at or below the benchmarks based on geometric mean evaluation or due to background natural causes.

WASTE MANAGEMENT

Hillsboro Landfill, Inc
3205 SE Minter Bridge
Hillsboro, OR, 97123
Ph: (503)-640-9427

Original
Ticket# 1047363

Customer Name CASH CASH CUSTOMER
Ticket Date 09/16/2010
Payment Type Check
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest
Destination
PO
Profile ()
Generator

Carrier CASH CASH/ CREDITCARD/ CHECK
Vehicle# 177 Volume
Container
Driver
Check# 0
Billing # 0000001
Gen EPA ID

Grid

	Time	Scale	Operator	Inbound		
In	09/16/2010 10:39:24	Inbound 2	ajm		Gross	5180 lb
Out	09/16/2010 10:56:37	Outbound	jlr		Tare	5060 lb
					Net	120 lb
					Tons	0.06

Comments 12959 n rivergate blvd. portland
ash grove cement 2310

Consumer Comments? We want to know. Please call.

Product		LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	ASBNONFRIMIN-ASBES	100	1	Load	105.95		$105.95	MULT-IN
2	EVF-S-Standard Env	100	1	Load	5.00		$5.00	MULT-IN

Amt $110.95, Amt Tendered $110.95, Chg Due $0.00

Total Tax
Total Ticket $110.95

203WMer's Signature

AGC0012228

JAMMIE'S ENVIRONMENTAL, INC.
PO Box 1120
Longview, WA 98632
Office: 1-800-577-5691
Fax: 1-360-577-0926

Invoice

Date: 12/6/2011

Invoice No: 11-5894

Bill To:

Ash Grove Cement
3737 N Port Center Way
Portland, OR 97217

Purchase Order	Terms	Due Date
	1% 10 Net 30	1/5/2012

Service Date	Item	Quantity	Description	Rate	Amount
11/21/2011	Hard Bid	1	Vacuum/clean the hydraulic pump and containment area in the basement at the South Terminal Silo	1,535.00	1,535.00
	Disposal	1,145	gallons, Disposal of oily water @ ORRCO - ticket #R01-11-1121-008	0.30	343.50

Cleaned out Indexer sumps and water poly tank also! Thanks

Ash Grove – PDX Terminal
Original Invoice
Received
DEC 13 2011
CO#_____
Due Date_____
Approved By_____

Thank you for your business.

Subtotal	$1,878.50
Sales Tax (0.0%)	$0.00
Total	$1,878.50

PLEASE PAY FROM THIS INVOICE
Any overdue accounts will be charged a late payment fee of 1.5% per month (18%annually)

AGC0012229

RECEIVING RECORD

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

R 01-11-1121-008

Received From:
Jammies Environmental
128 Industrial Way
Longview WA 98632
EPA# WAH000022628
Phone: 360-577-5691
Customer ID# ***9586***
Driver: Brian

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
11/21/11	-0-	Danny	0	*1* of *1*

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	*1*	*Each*	*Hydro Clor-D-Tect Kit* Generator ID# 0 See Comments				
			Total Each 1.				
2	*1145*	*Gal.*	*Emulsified Oil & Water* Generator ID# 0 See Comments profile attached. ashgrove cement.	*75 %*			
			Total Gal. 1145.				

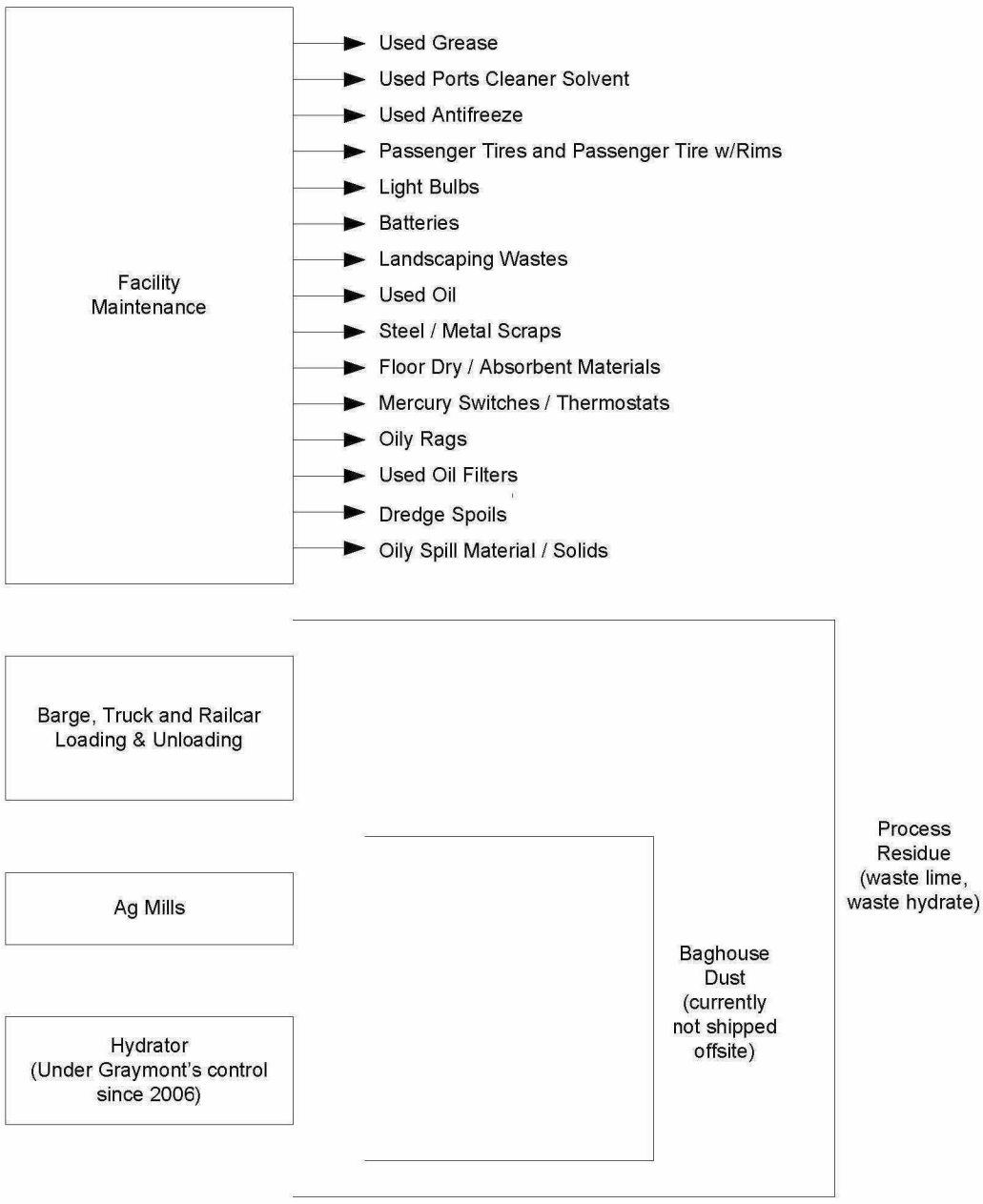
Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred

Signed X _____ DATE: 11/21/11

Total	Yearly	Company	Vessel	Berth	Cast Off		Revenue	Inv. Amt.	Inv. Date	Remit Amt.	Remit Date
1	1	Crowley	Liberty Island	9/12/2008	10/1/2008	$					
2	2	Crowley	Terrapin Island	10/21/2008	10/26/2008	$					
3	3	GLD&D	Ocean Reliance	11/3/2008	11/5/2008	$					
					2008	$					
4	1	GLD&D	Yukon	2/10/2009	2/12/2009	$					
5	2	GLD&D	Terrapin Island	3/3/2009	5/23/2009	$					
6	3	Tidal Transport	Azuma Phoenix	3/12/2009	3/14/2009	$					
7	4	Tidal Transport	Hua Qaing	7/28/2009	7/31/2009	$					
8	5	ISC	Island Singapura	9/27/2009	10/1/2009	$					
9	6	ISC	Sanko Sincere	11/21/2009	11/22/2009	$					
					2009	$					
10	1	Tidal Transport	Heron	2/10/2010	2/14/2010	$					
11	2	Tidal Transport	Port Kenny	5/14/2010	5/18/2010	$					
12	3	Tidal Transport	Avalon	6/17/2010	6/21/2010	$					
13	4	PCMA	Kestrel I	7/16/2010	7/17/2010	$					
14	5	Tidal Transport	Kastro	11/9/2010	11/11/2010	$					
15	6	PNWS&C	B Indonesia	12/6/2010	1/2/2011	$					
					2010	$					
16	1	PNWS&C	B Indonesia	1/20/2011	1/22/2011	$					
17	2	Transversal/Tidal	Genco Prosperity	1/26/2011	1/30/2011	$					
18	3	Transversal/Tidal	Petrol Arrow	2/14/2011	2/17/2011	$					
19	4	Transversal/Tidal	Arion SB	3/4/2011	3/8/2011	$					
20	5	ACGI	Saga Spray	3/10/2011	3/13/2011	$					
21	6	ACGI	Free Jupiter	3/13/2011	3/14/2011	$		$	3/16/2011	$	8/16/2011
22	7	Transmarine Navigation	K. Coral	3/23/2011	3/24/2011	$		$	3/28/2011	$	5/13/2011
23	8	Tidal Transport	BulkTec	4/11/2011	4/12/2011	$		$	4/13/2011	$	6/2/2011
24	9	ACGI	Susaki Wing	4/25/2011	4/30/2011	$		$	5/4/2011	$	5/26/2011
25	10	Cascade Marine	Fu Min	5/2/2011	5/9/2011	$		$	5/12/2011	$	7/7/2011
26	11	Cascade Marine	Kaiti Hill	5/23/2011	3/25/2011	$		$	5/26/2011	$	7/14/2011
27	12	Tidal Transport	Molat	6/26/2011	6/28/2011	$		$	6/28/2011	$	7/25/2011
28	13	Tidal Transport	Cos Fair	8/5/2011	8/10/2011	$		$	8/11/2011	$	10/12/2011
29	14	Tidal Transport	Cos Fair	10/4/2011	10/7/2011	$		$	10/10/2011	$	11/24/2011
30	15	Tidal Transport	Cathrin Oldendorff	10/24/2011	10/26/2011	$		$	11/23/1921	$	12/22/2011
31	16	Tidal Transport	Gold Gemini	11/14/2011	11/15/2011	$		$	11/18/2011	$	1/26/2012
32	17	ACGI	Tao Star	11/18/2011	11/19/2011	$		$	11/22/2011	$	12/8/2011
33	18	Orion Shipping	Navios Vector	11/29/2011	12/1/2011	$		$	12/5/2011	$	12/29/2011
					2011	$					
34	1	Orion Shipping	Hanjin Matsue	1/28/2012	1/30/2012	$		$	1/30/2012	$	3/7/2012
35	2	Transversal Shipping	Solar Asia	1/30/2012	2/2/2012	$		$	2/9/2012	$	3/19/2012
36	3	General Steamship	Toxotis	2/13/2012	2/14/2012	$		$	2/15/2012	$	7/19/2012
37	4	Transmarine Navigation	Navios Ionian	2/23/2012	2/24/2012	$		$	2/28/2012	$	4/25/2012
38	5	Cascade Marine	Aqua Atlantic	2/29/2012	3/1/2012	$		$	3/6/2012	$	4/9/2012
39	6	Tidal Transport	Spar Lynx	7/12/2012	7/14/2012	$		$	7/16/2012	$	8/30/2012
40	7	Tidal Transport	Lilly Oldendorff	7/20/2012	7/22/2012	$		$	7/23/2012	$	9/13/2012
41	8	Norton Lilly Int'l	Grace One	10/22/2012	11/1/2012	$		$	11/5/2012		
					2012	$					
				Running Total		$	Redacted				

REDACTED

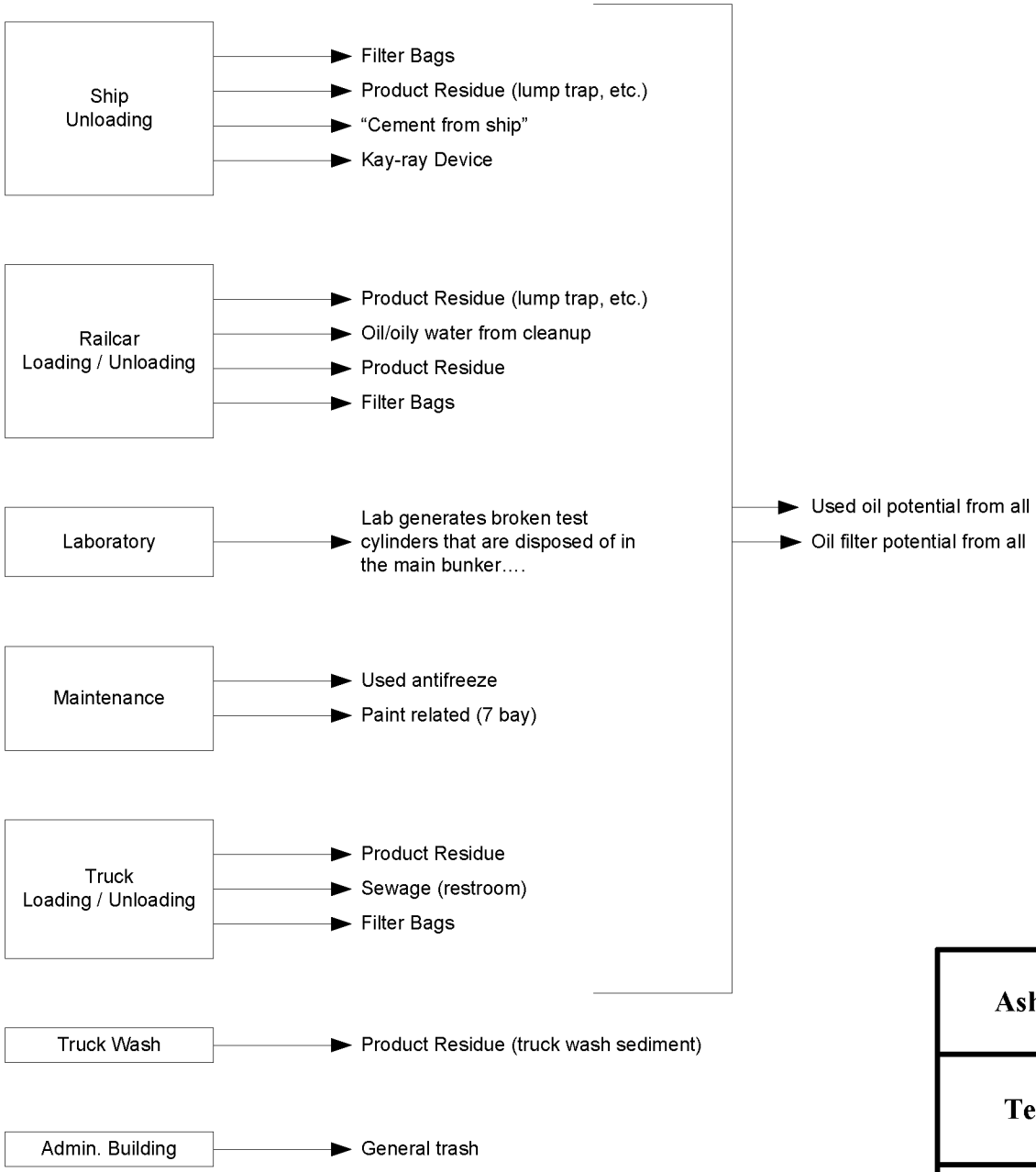
AGC0012231



Ash Grove Cement Company

Rivergate Waste Generation

Trinity Consultants **104801.0042**



Ash Grove Cement Company

Terminal Waste Generation

Trinity Consultants

104801.0042

AGC0012233

15-6

Department of Environmental Quality

811 SW SIXTH AVENUE, PORTLAND, OREGON 97204-1390 PHONE (503) 229-5696

April 10, 1990

W A Kistler
Ashgrove Cement West Inc
P O Box 03007
Portland, OR 97203

RE: Authorization to Burn
Off-Specification Used Oil
ORD0277072561

Dear Mr. Kistler:

Enclosed please find a copy of Ashgrove Cement's original EPA Notification Form submitted May 1988 and a copy of our letter notifying Ashgrove of its registration as an off-specification used oil fuel burner. Unfortunately, this letter was not copied on our letterhead.

We do not have an "official verification form"; you may use this letter to verify that you are authorized to receive and burn, for Ashgrove's needs, off-specification used oil fuel.

Also enclosed is a copy of that part of the Code of Federal Regulations which deals with Burner activities.

Sincerely,

Susan Eidman

Susan Eidman
Hazardous Waste

Enc.

Revised Letter

15-G

June 17, 1988

W.A. Kistler
Ash Grove Cement West, Inc.
P.O. Box 03007
Portland, OR 97203

Re: EPA Registration
Multnomah County
ORD 027707256

Dear Mr. Kistler:

Your company's registration as an off-specification used-oil fuel burner has been received by the Department.

The identification number assigned to your firm is to be used on all shipping papers, manifests and correspondence concerning used oil fuel activities.

The number is ORD 027707256.

If you have any questions, call me at 229-5123 or toll free at 1-800-452-4011.

Sincerely,

Lisa E. Frost
Environmental Specialist
Hazardous Waste Section
Hazardous and Solid Waste Division

LEF:b
ZB7610

cc: Northwest Region, DEQ

15-6

Please print or type with ELITE type (12 characters per inch) in the unshaded areas only

Form Approved. OMB No. 2050-0028. Expires 9-30-88.
GSA No. 0246-EPA-OT

United States Environmental Protection Agency
Washington, DC 20460

EPA Notification of Hazardous Waste Activity

Please refer to the *Instructions for Filing Notification* before completing this form. The information requested here is required by law (Section 3010 of the Resource Conservation and Recovery Act).

For Official Use Only

Comments: C C

Installation's EPA ID Number: C F | T/A: C 1 | Approved | Date Received (yr. mo. day)

I. Name of Installation

ASHGROVE CEMENT WEST INC.

II. Installation Mailing Address

Street or P.O. Box: C 3 PO BOX 03007

City or Town: C 4 PORTLAND | State: OR | ZIP Code: 97203

III. Location of Installation

Street or Route Number: C 5 13939 N. RIVERGATE BLVD.

City or Town: C 6 PORTLAND | State: OR | ZIP Code: 97203

IV. Installation Contact

Name and Title (last, first, and job title): C 2 KISTLER W.A. PLT MGR

Phone Number (area code and number): 5032861677

V. Ownership

A. Name of Installation's Legal Owner: C R ASHGROVE CEMENT WEST

B. Type of Ownership (enter code): P.

VI. Type of Regulated Waste Activity (Mark 'X' in the appropriate boxes. Refer to instructions.)

A. Hazardous Waste Activity

- ☐ 1a. Generator ☐ 1b. Less than 1,000 kg/mo.
- ☐ 2. Transporter
- ☐ 3. Treater/Storer/Disposer
- ☐ 4. Underground Injection
- ☐ 5. Market or Burn Hazardous Waste Fuel (enter 'X' and mark appropriate boxes below)
  - ☐ a. Generator Marketing to Burner
  - ☐ b. Other Marketer
  - ☐ c. Burner

B. Used Oil Fuel Activities

- ☒ 6. Off-Specification Used Oil Fuel (enter 'X' and mark appropriate boxes below)
  - ☐ a. Generator Marketing to Burner
  - ☐ b. Other Marketer
  - ☒ c. Burner
- ☐ 7. Specification Used Oil Fuel Marketer (or On site Burner) Who First Claims the Oil Meets the Specification

VII. Waste Fuel Burning: Type of Combustion Device (enter 'X' in all appropriate boxes to indicate type of combustion device(s) in which hazardous waste fuel or off-specification used oil fuel is burned. See instructions for definitions of combustion devices.)

☐ A. Utility Boiler ☐ B. Industrial Boiler ☒ C. Industrial Furnace

VIII. Mode of Transportation (transporters only — enter 'X' in the appropriate box(es))

☐ A. Air ☐ B. Rail ☐ C. Highway ☐ D. Water ☐ E. Other (specify)

IX. First or Subsequent Notification

Mark 'X' in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your installation's EPA ID Number in the space provided below.

☒ A. First Notification ☐ B. Subsequent Notification (complete item C)

C. Installation's EPA ID Number: AGC0008658

Continue on reverse

ID — For Official Use Only													
C												T/A	C
W													1

X. Description of Hazardous Wastes *(continued from front)*

A. Hazardous Wastes from Nonspecific Sources. Enter the four-digit number from 40 *CFR* Part 261.31 for each listed hazardous waste from nonspecific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
NON-APPLICABLE					
7	**8**	**9**	**10**	**11**	**12**

B. Hazardous Wastes from Specific Sources. Enter the four-digit number from 40 *CFR* Part 261.32 for each listed hazardous waste from specific sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
NON-APPLICABLE					
19	**20**	**21**	**22**	**23**	**24**
25	**26**	**27**	**28**	**29**	**30**

C. Commercial Chemical Product Hazardous Wastes. Enter the four-digit number from 40 *CFR* Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
NON-APPLICABLE					
37	**38**	**39**	**40**	**41**	**42**
43	**44**	**45**	**46**	**47**	**48**

D. Listed Infectious Wastes. Enter the four-digit number from 40 *CFR* Part 261.34 for each hazardous waste from hospitals, veterinary hospitals, or medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54
NON-APPLICABLE			NON-APPLICABLE		

E. Characteristics of Nonlisted Hazardous Wastes. Mark "X" in the boxes corresponding to the characteristics of nonlisted hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 — 261.24)*

NON-APPLICABLE

☐ 1. Ignitable *(D001)* ☐ 2. Corrosive *(D002)* ☐ 3. Reactive *(D003)* ☐ 4. Toxic *(D000)*

XI. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature	Name and Official Title *(type or print)*	Date Signed
W.A. Kistler	PLANT MANAGER W.A. KISTLER	4/1/88

EPA Form 8700-12 (Rev. 11-85) Reverse

AGC0008659

Appendix58-000893

AGC0012237

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

PLEASE REFER TO THE INSTRUCTIONS AND GUIDANCE DOCUMENT, SEVEN STEPS FOR IDENTIFYING HAZARDOUS WASTES, BEFORE COMPLETING THIS FORM. THE INFORMATION REQUESTED HERE IS REQUIRED BY OREGON ADMINISTRATIVE RULE 340-102-0 THIS FORM IS USED IN LIEU OF EPA NOTIFICATION FORM 8700-12 IN THE STATE OF OREGON.

OFFICIAL USE ONLY
DEQ 168-013-89
DATE RECEIVED

1. REASONS

NAME
ASH GROVE CEMENT COMPANY

☐ 2. DO NOT GENERATE HAZARDOUS WASTE (CHECK BOX IF APPLICABLE) — DELETE (COMPLETE SECTION 5)

3. DEQ/EPA IDENTIFICATION NUMBER

IF BUSINESS INSTALLATION HAS DEQ/EPA ID NUMBER

ENTER HERE (12 digit number) ORD027707256

4. REASON FOR NOTIFICATION

(MARK ONE BOX ONLY)
REQUEST IS TO

☐ 1. OBTAIN DEQ/EPA ID NUMBER
☐ 2. WITHDRAW DEQ/EPA ID NUMBER
☐ 3. CANCEL DEQ/EPA ID NUMBER
☐ 4. REACTIVATE DEQ/EPA ID NUMBER
☒ 5. UPDATE NOTIFICATION INFORMATION

RECEIVED
DEC 12 1991
Hazardous & Solid Waste Division
Department of Environmental Quality

5. SITE INFORMATION

A. PHYSICAL LOCATION OF SITE

STREET ADDRESS
13935 N RIVERGATE BOULEVARD

COUNTY

CITY, STATE, ZIP
PORTLAND OR 97203

B. MAILING ADDRESS OF SITE

STREET OR P.O. BOX
P.O BOX 83007

CITY, STATE, ZIP
PORTLAND OR 97203

C. LEGAL OWNER OF SITE

NAME
ASH GROVE CEMENT COMPANY

STREET
6720 SW MACADAM AVENUE

P.O. BOX
SUITE 300

CITY, STATE, ZIP
PORTLAND OR 97219

D. CONTACT AT THE SITE

NAME
WILLIAM A WISTLER

TITLE
PLANT MANAGER

TELEPHONE
5032861677 (WITH AREA CODE)

E. STANDARD INDUSTRIAL CODE (SIC) (REFER TO ENCLOSED SIC LISTING)

PRIMARY: 3241
SECONDARY:

12/13/91
#4070
cc: EPA
NWR
Gen
Spend.

F. SITE CLASSIFICATION (SEE INSTRUCTIONS FOR EXPLANATION)

IDENTIFY ONE CATEGORY FOR EACH "TYPE"

(MARK ONE BOX ON EACH LINE)

	PRIVATE	FEDERAL	STATE	COUNTY	DISTRICT	MUNICIPAL	INDIAN
OWNER TYPE	X						
OPERATOR TYPE	X						
PROPERTY TYPE	X						

Sub # 103839 / mail

5

AGC0012238

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Aaron B. Wieting	503-823-5600	City of Portland Water Pollution Control Laboratory 6543 N. Burlington Ave. Portland, OR 97203	Environmental Technician of Industrial Stormwater Program
Alan Lau	503-378-8711	Public Utility Commision 550 Capital Street NE Salem, OR 97310	Pipeline Safety Analyst
Andree Pollock	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	UST Cleanup Specialist
Annette Liebe		Oregon DEQ	Manager, Surface Water Management Water Quality Division
Annie Hill	503-229-5263	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Permits Coordinator Water Source Control Northwest Region
Annie M. Ojeda (Annie Ojeda Duffy)	503-378-3805	Division of State Lands 775 Summer Street NE Salem, OR 97301-1279	Leasing Secretary, Resource Management & Support Services Supervisor, Field Operations - Western Region
Anthony J. Re	503-823-7300	City of Portland Bureau of Buildings 1120 SW 5th Avenue Portland, OR 97207	Engineering Associate
Atina Casas	503-823-5437	City of Portland and Environmental Services 1211 SW 5th Ave, Suite 800 Portland, Oregon 97204	
Aubrey O'Brien		Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	NWR Air Quality Manager
Audrey M. O'Brien	503-229-5554	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4989	NWR Air Quality Manager
Barbara Priest		Oregon DEQ Water Quality Division 811 SW 6th Ave Portland, OR 97201	
Beth Moore		Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	
Bill Brauer		Oregon Office of the State Fire Marshal 4760 Portland Rd., NE Salem, OR 97305	Environmental Specialist II
Bill Lesher		Oregon DEQ 1234 SW Morrison St Portland, OR 97205	
Blaine Hoover	503-240-2555	US Dept. of Homeland Security US Coast Guard 6767 N Basin Avenue Portland, OR 97217-3994	Petty Officer
Bob Albers	503-378-3473	Oregon Emergency Response Comission Office of the State Fire Marshall 4760 Portland Road, Northeast Salem, OR 97305	
Bob Harris	503-229-5259	Oregon DEQ 811 SW Sixth Ave. Portland, Oregon 97204	
Brad A. Carter	503-823-3493	City of Portland	City Planner II
Brad K. Daniels	503-240-5640	Oregon Dept. of Transportation 12348 N Center Avenue Portland, OR 97217-7871	Compliance Investigator Motor Carrier Transportation Division

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Bruce R. Mock	503-378-3805	Division of State Lands 1600 State Street Salem, OR 97310	Waterway Leasing Manager
Byron K. Blankenship		Dept. of the Army Portland District Corps of Engineers PO Box 2946 Portland, OR 97208	Chief, Permits and Environmental Planning Section
Calvin Wheeler	503-986-4310	Oregon Department of Transportation Rail Division	Inspector
Carl Kitz		US EPA Region 10 1200 Sixth Avenue Seattle, WA 97101	
Carol A. Splettstaszer	503-229-5696	Oregon DEQ 522 SW Fifth Ave Box 1760 Portland, OR 97207	Tax Credit Program Coordinator
Carol Harris	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Clerical Specialist Underground Storage Tank Program
Catherine Blaine	503-229-5263	Oregon DEQ Northwest Region Portland Office Air Quality Program 2020 SW 4th Avenue, Suite 400 Portland, OR 97201	NWR Permit Coordinator
Charles Ashbaker	503-229-5325	Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97205	Industrial and on-site Waste Section
Charles Clinton		Oregon DEQ 522 SW Fifth Ave Box 1760 Portland, OR 97207	
Charles Gennar	503-796-7301	City of Portland Bureau of Buildings 1120 SW 5th Avenue Room 930 Portland, OR 97204	Plans Examiner
Charles Hines		Dept. of the Army Portland District Corps of Engineers PO Box 2946 Portland, OR 97208	Colonel, Corps of Engineers District Engineer
Charles K. Ashbaker	503-229-5263	Oregon DEQ Northwest Region 1500 SW First Ave Portland, OR 97201	Manager Water Quality
Charles K. Ashbaker	503-229-5325	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Supervisor Water Pollution Control Section
Charles R. Clinton		Oregon DEQ 522 SW Fifth Ave Box 1760 Portland, OR 97207	Regional Supervisor Northwest Region
Chris Elias		Sacramento Municipal Utility District 6201 "S" Street Sacramento, CA 95817	
Christa Overby, P.E.		City of Portland BES ESCSO Tunnel Project 211 SE Caruthers St., Suite 200 Portland, OR 97214	
Chuck Harman	503-229-5263	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Site Assessment Specialist DEQ Northwest Region
Clark L. Gaulding		US EPA 1200 6th Ave Seattle, WA 98101	Chief Air Programs Branch

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Full Name	Telephone	Agency	Job Title or Position
Cory-Ann Chang	503-229-5263	Oregon DEQ 2020 SW Fourth Ave, Suite 400 Portland, OR 97201	Environmental Specialist
Cyril J. Young	503-378-3805	Division of State Lands 775 Summer Street NE Salem, OR 97301-1279	Property Manager
D. Robert Lohn		US Department of Commerce National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service Northwest Region 7600 Sand Point Way NE, Bldg 1 Seattle, WA 98115	Regional Administrator
Daniel Heister		Oregon Operations Office US EPA 811 SW 6th Ave Portland, OR 97204	Environmental Protection Specialist
Danny D. Loomis		Oregon Department of Human Services Public Health Division Office of Environmental Public Health	Manager, Radioactive Materials Licensing
Daphne L. Bussey	503-229-5554	Oregon DEQ 2020 SW Fourth Ave, Suite 400 Portland, OR 97201	Permit Coordinator Air Quality Program
Darryl J. Flasphaler	503-248-3400	Multnomah County Oregon Health Department Environmental Health Section 426 SW Stark St, 8th Floor Portland, OR 97204	Environmental Health Specialist
Daryl A. Leon	971-673-0498	Oregon Department of Human Services Public Health Division Office of Environmental Public Health	Environmental Health Specialist 3
Dave Lelan	971-673-0405	Oregon Dept of Human Services Public Health Division 800 NE Oregon St Portland, OR 97232	Drinking Water Manager
Dave Nordberg	503-229-5263	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Oregon DEQ NW Division
David B. Berg		Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Permitting Manager Air Quality Division Additional: Permitting Supervisor Air Quality Division
David Berniker	503-823-7389	City of Portland Bureau of Planning 1st Floor, Permit Center 1120 SW Fifth Avenue Portland, OR 97204	Planning Representative
David Brown		MSHA	Inspector
David J. Olsen	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Emission Inventory Coordinator Technical Services Section Air Quality Division
David Small		MSHA	Inspector
David Wall		Oregon DEQ	Oregon DEQ Air Quality Duty Officer
Deb Yamamoto		US EPA Region 10 1200 Sixth Avenue, Suite 900 Seattle, WA 98101	Unit Manager

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Deborah A. Bahs		WA State Dept. of Agriculture Pesticide Management Division 1111 Washington St PO Box 42589 Olympia, WA 98504	
Debra L. Loucks		Oregon DEQ 5222 SW 5th Ave PO Box 1760 Portland, OR 97207	Clerical Assistant Fiscal Office
Dennis Jurries		Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	
Dennis Jurries		City of Portland Bureau of Environmental Services (BES) Water Pollution Control Laboratory 6543 N. Burlington Ave Portland, OR 97203	Northwest Region Storm Water Engineer
Dennis Karst		MSHA	Inspector
Diarmuid F. O'scannlain	503-229-5301	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Director
Don Erickson	503-808-4713	US Army Corp of Engineers Portland District	Project Manager
Donald P. Dubois		US EPA Region X 1200 6th Ave Seattle, WA 98101	Regional Administrator
Doug Caven	541-984-4712	Utility Notification Center 1415 S.E. Ankeny Portland, OR 97214	Vice-Chair
Doug Ober	503-233-7176	Columbia-Willamette Air Pollution Authority 1010 NE Couch St Portland, OR 97232	Assistant Engineer
Douglas C. Hansen		US EPA 1200 6th Ave Seattle, WA 98101	Director Air and Hazardous Materials Division
Douglas Morgan, P.E.	503-823-7300	City of Portland Bureau of Development Services Land Use Services Division 1900 SW Fourth Ave. Suite 5000 Portland, OR 97201	Senior Engineer, Site Development
Douglas Terra	1-800-452-4011	Oregon DEQ	Geographic Information Coordinator Water Quality Division
E. J. Weathersbee	503-229-5696	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Administrator NW Regional Office
E. Patricia Vernon	503-229-5696	Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	Manager, Program Operations, Oregon DEQ Air Quality Division
Earle A. Johnson	503-378-3805	Division of State Lands 775 Summer Street NE Salem, OR 97301-1279	Manager
Ed Druback	503-229-5554	Oregon DEQ 2020 SW 4th Ave, Suite 400 Portland, OR 97201	Air Quality Manager Northwest Region
Ed Woods	503-229-5263	Oregon DEQ NW region office	Air Quality Manager
Edwin Wright		Oregon Department of Human Services Public Health Division Office of Environmental Public Health Radiation Protection Services 800 NE Oregon St Portland, OR 97232	Acting Manager Radioactive Materials Licensing Program Radiation Protection Services

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Full Name	Telephone	Agency	Job Title or Position
EJ Weathersby		Department of Environmental Quality 1234 SW Morrison Street Portland, OR 97205	Administrator
Elaine Albrich	503-944-7239	Port of Portland	
Elizabeth McKenna	206-553-1116	US EPA Region 10 1200 Sixth Avenue, Suite 900 Seattle, WA 98101	Legal Counsel
Elliot Zais	503-229-5292	Oregon DEQ, NW Region 2020 SW Fourth Ave, Suite 400 Portland, OR 97201	Water Quality Source Control Dept.
Eric Blishke		Oregon DEQ, Northwest Region, Portland Harbor Study Area, Waste Mgt & Cleanup Div., 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Coordinator
Eric Clough	541-269-2721	Oregon DEQ Western Region Coos Bay Office 381 N 2nd St Coos Bay, OR 97420	Natural Resource Specialist DEQ USTC Project Manager Underground Storage Tank Program
Eric May	503-240-2585	US Dept. of Homeland Security US Coast Guard 6767 N Basin Avenue Portland, OR 97217-3993	Lieutenant Junior Grade
Erin Shelley	503-823-5600	City of Portland Industrial Stormwater Program 6543 N Burlington Ave Portland, OR 97203	Environmental Tech I
Frank Dennis		Multnomah County Environmental Health 426 SW Stark 3rd Floor Portland, OR 97204	
Fred Hansen	503-229-5696	Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	Director
Frederick C. Deis	503-823-7543	City of Portland, Oregon Office of Planning and Development Review 1900 SW 4th Avenue, Suite 5000	Structural / Mechanical Supervisor
Gary Church	913-451-8900 ext 277	MSHA	
Gary G. Smith	503 -326-2814	United States Department of Agriculture Room 657 Federal Bldg 511 NW Broadway Portland, OR 97209	Office in Charge
Gene Potter	503-378-3329	Office of the Secretary of State Audits Division 158 12th Street NE Salem, OR 97310	Assistant Director
George E. Hyde		Department of the Army Portland District, Corps of Engineers P.O. Box 2946 Portland, OR 97208	Chief, Navigation Division
George F. Davis	503-229-5263	Oredon DEQ, NW Region 2020 SW 4th Ave, #400 Portland, OR 97201	Environmental Engineer
George H. Fleerlage	503-248-4593	City of Portland 424 SW Main St. Portland, OR 97204	Hearings Officer
George Yun		Oregon DEQ Northwest Region 2020 SW 4th Avenue, #400	Permit Coordinator
Gerald Barnes	503-988-3400	Multnomah County Oregon Health Department 727 NE 24th Ave Portland, OR 97232	Lead EHS

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Gerald T. Wilson	503-229-5696	Oregon DEQ 522 SW Fifth Ave Box 1760 Portland, OR 97207	Environmental Noise Specialist Noise Pollution Control
Gil Haselberger		EPA Region 10 1200 Sixth Ave Seattle WA 98101	Chief Toxic Substances Section
Gil Wistar	503-229-5512	DEQ NW Region	Project Manager, DEQ Site Assessment Program
Greg Dahmen		Oregon DEQ, NW Region 2020 SW 4th Ave, #400 Portland, OR 97201	
Greg Grunow	503-229-6385 ext 244	Oregon DEQ Northwest Region 1500 SW First Ave Portland, OR 97201	Environmental Specialist
Gregg Lande	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Acting Manager Program Operations Section Air Quality Division
Gregory Toran	503-229-5263	Oregon DEQ NW Region 2020 SW 4th Ave, Suite 400 Portland, OR 97201	Environmental Specialist
Harold L. Sawyer	503-229-5696	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Administrator Water Quality Division
Harold Sawyer		Department of Environmental Quality State Office Building 1400 SW 5th Avenue Portland, OR 97201	Supervising Engineer Waste Discharge Permit & Tax Credits Section
Henry F. Droege	206-753-2800	WA Dept, of Ecology Olympia, WA 98504	Supervisor Air Resource Division
Herbert A Ballin Jr.		Associated Oregon Industries	President
Herschel W. Pendell		Oregon Dept. of Agriculture 635 Capitol Street NE Salem, OR 97310	Agricultural Specialist Plant Division
Jack A. Payne	503-238-8471	Oregon DEQ Northwest Region 1010 NE Couch St Portland, OR 97232	Assistant Engineer
Jack Herbert	503-286-1677	Oregon DEQ Department of Environmental Quality Northwest Region 2020 SW Fourth Avenue, Suite 400 Portland, OR 97201	
Jack Lowe	227-7176	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Administrative Director
Jack P. Dent	503-378-6760	Oregon Public Utility Comission 550 Capitol St. NE Salem, OR 97310	Senior Pipeline Safety Analyst Energy/Gas Safety
Jack Ross	913-451-8900 ext 259	MSHA	
James A. Broad	503-229-6021	Oregon DEQ 522 SW 5th Ave Portland, OR 97204	Regional Engineer
James E. Petersen		Oregon DEQ	Chairman
James M. Everts		US EPA Region 10 1200 Sixth Avenue Seattle, WA 98101	Chief Superfund Response and Investigation Branch
James McKenna		Port of Portland, 121 NW Everett, POB 3519, Portland, OR 97208	Co-Chair LWG

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
James R. Close	503-233-7176	Columbia-Willamette Air Pollution Authority 1010 NE Couch St Portland, OR 97232	Air Pollution Specialist
Jan Stuart	503-808-4375	US Army Corps of Engineers	Regulatory Project Manager
Janet C. Neuman	503-378-3805	Division of State Lands 1600 State Street Salem, OR 97310	Assistant Director
Jason Abraham		Citiy of Portland Buereau of Buildings	Inspector
Jason McAllister		Utility Notification Center 1415 S.E. Ankeny Portland, OR 97214	Database Administrator
Jay P. Mattos		Department of Labor MSHA	Acting Director, Office of Assessments
Jay Ponce	503-823-7300	City of Portland, Oregon Bureau of Buildings 1120 SW 5th Avenue Portland, Oregon 97204	Special Inspection Coordinator
Jeff Wiese		DOT - Pipeline and Hazardous Materials Safety Administration 400 Seventh St. SW Washington, D.C. 20590	Director, OPS Program Development
Jennifer Sutton	503-229-5263	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Project Manager - Voluntary Cleanup
Jerry Hedrick	503-378-3805	Division of State Lands 775 Summer Street NE Salem, OR 97301-1279	Property Manager - Easements and Leasing
Jerry Murray	503-378-6626	Public Utility Commision 550 Capital Street NE Salem, OR 97310	Program Manager
Jerry Obteshka		Oregon DEQ Air Quality Division	Senior Noise Analyst
Jevra Brown		State of Oregon Department of State Lands PO Box 4395, Unit 18 Portland, OR 97208	
Jim Anderson		Oregon DEQ - Northwest Region 2020 SW 4th, Suite 400 Portland, OR 97201	
Jim Broad	503-229-5263	Oregon DEQ NW Region 2020 SW 4th Ave, Suite 400 Portland, OR 97201	Environmental Engineer
Jim Macmillian		MSHA	Inspector
Jim Watkins		Metropolitan Service District 2000 South West First Avenue Portland, Oregon 97201-5398	
Joe Alvarado	503-221-2251	U.S. Department of Labor Room 640 Federal Bldg. 1220 SW Third Avenue Portland, OR 97204	Acting Area Director
Joel Dozier		MSHA	Inspector
John Barco		Department of the Army P.O. Box 2946 Portland, OR 97208-2946	Project Manager
John F. Kowalczyk	227-7176	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Technical Director
John Holtrop	503-823-7885	City of Portland Bureau of Environmental Services (BES) Water Pollution Control Laboratory 6543 N. Burlington Ave Portland, OR 97203	Environmental Tech II

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
John J. Ruscigno	503-229-6993	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Manager Program Operations Section Air Quality Division
John Knowles		MSHA	Inspector
John Lilly	503-378-3805	OR Divison of State Lands 775 Summer St NE Salem, OR 97310	Waterway Planner
John M. Dombrowski			Chief TRI Regulation Development Branch
John Miller		OR-OSHA 3867 Wolverine St, NE, Suite 26 Salem, OR 97305	Manager of Health Enforcement
John Payne		Department of the Army Portland District Corps of Engineers P.O. Box 2946 Portland, Oregon 97208	Chief, Permits Section
John W. Barco		US Army Corps of Engineers PO Box 2946 Portland, OR 97208	
John W. Vetter	703-355-2495	Department of the Army Corps of Engineers, Water Resources Support Center 7701 Telegraph Road Alexandria, VA 22315	Civil Engineer
Johnny Baumgartner		Department of Environmental Quality 2020 SW Fourth Suite 400 Portland, OR 97201	
Johnny D. Baumgartner	503-229-5263	Oregon Department of Environmental Quality 2020 SW 4th Ave #400 Portland, Oregon 97201	Permit Coordinator, Air Quality Section, Northwest Region
Joseph P. Wood		US EPA Office of Air Quality Planning Standards Research Triangle Park, NC 27711	Environmental Engineer
Judy L. Linton		Department of the Army Portland District, Corps of Engineers P.O. Box 2946 Portland, OR 97208	Permit Evaluator Regulatory & Environmental Resource Branch
Julie Schmitt		Water Qulity Source Control	Permits Coordinator
K.V. Feeney		U.S. Department of Transportation United States Coast Guard 6767 North Basin Avenue Portland, OR 97217	Commander
Kate Green	503-823-7300	City of Portland Bureau of Development Services Land Use Services Division 1900 SW Fourth Ave. Suite 5000 Portland, OR 97201	Land Use Services
Kate Shelley	503-823-5600	City of Portland Water Pollution Control Laboratory	Permit Manager of Industrial Stormwater Section
Kathryn Harris		U.S. Army Corps of Engineers Portland District, Regulatory PO Box 2946 Portland, OR 97208	
Kathy Amidon	503-667-8414, ext. 55010	Oregon DEQ Northwest Region - East Side Office 1550 NW Eastman Parkway Suite 290 Gresham, OR	Permit Coordinator Air Quality Division
Ken E. Langley	503-229-5910	OR-OSHA Portland Field Office 9500 SW Barbur Blvd Suite 200 Portland, OR 97219	Field Safety Manager

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Kenneth Doud	378-3805	Division of State Lands 1485 State St Salem, OR 97310	Supervisor
Kenneth Feigner		EPA	EPA Pesticides and Toxic Substances Branch
Kenneth H. Spies	503-226-2161	State of Oregon Oregon State Sanitary Authority 1400 SW 5th Avenue Portland, OR 97201	Secretary and Chief Enginner
Kessler R. Cannon	503-238-8471	Oregon Department of Environmental Quality Northwest Region 1010 N.E. Couch Street Portland, Oregon 97232	Director
Kevin H. Siebert	971-673-0490	Oregon Department of Human Services Public Health Division Office of Environmental Public Health Radiation Protection Services 800 NE Oregon St Portland, OR 97232	Health Physicist Radioactive Materials Licensing Program
Kevin Hennessy	503-378-6115	Public Utility Comminsion 550 Capital Street NE Salem, OR 97310	Pipeline Safety Analyst
Kevin Masterson	229-5615	OregonDEQ	Hazardous Waste Dept.
Kimberly Miller		City of Portland	City Planner
Kirk D. Jarvie	503- 378-3805	Oregon Division of State Lands, Multnomah and Hood River Counties	Natural Resource Coordinator
Kristine Koch	206-553-6705	US EPA Region 10 1200 Sixth Avenue, Suite 900 Seattle, WA 98101	Remedial Project Manager
Kym Miller		WA State Dept. of Agriculture Pesticide Management Division 1111 Washington St PO Box 42589 Olympia, WA 98504	
L. Edwin Coate	206-442-1586	U. S. Environmental Protection Agency Region X 1200 Sixth Avenue Seattle, Washington 98101	Deputy Regional Administrator
Langdon Marsh	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Director
Larry D. Patterson	503-238-8471	Oregon DEQ Northwest Region 1010 NE Couch St Portland, OR 97232	Engineer Portland Region
Larry Miller		Oredon DEQ, NW Region 2020 SW 4th Ave, #400 Portland, OR 97201	
Larry Oton		MSHA	Inspector
Lauri Aunan		Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	Administrator Water Quality Division
Laurie J McCulloch	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Regional Supervisor Northwest Region
Lawrence C. Evans		Department of the Army Portland District, Corps of Engineers P.O. Box 2946 Portland, OR 97208	Chief, Regulatory Branch

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Lillian Shirley	503-248-3674	Multnomah County Oregon Health Department 426 SW Stark St, 8th Floor Portland, OR 97204	Director of Health Department
Linda Birth	503-823-5185	City of Portland Office of Transportation 1120 SW 5th Avenue, Suite 800 Portland, OR 97204	Right of Way Acquisition Transportation Engineering and Development.
Lisa E. Frost	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Environmental Specialist Hazardous Waste Section Hazardous Waste and Solid Waste Division
Liz Fast	378-6522	Oregon Department of Revenue Salem, OR 97300	Revenue Agent
Lloyd A. Reed		EPA 1200 Sixth Ave. Seattle, WA 98101	Acting chief, Permits branch
Lloyd Kostow	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Manager Program Operations Air Quality Division
Lloyd Reed		US EPA Mail Stop 517 1200 6th Avenue Seatlle, WA 98101	Director of Enforcement Division
Lois D. Cashell		Federal Energy Regulatory Commission Washington, D.C. 20426	Secretary
Loren C. McPhillips		US EPA Region 10 1200 Sixth Ave Seattle, WA 98101	Technical Advisor
Loren Kramer	503-229-5325	Oregon Department of Environmental Quality 1234 S.W. Morrison Street Portland, Oregon 97205	Director
Loren Shelley		City of Portland Environmental Services Water Pollution Control Laboratory	Industrial Stormwater Section
Lori Cora	206-553-1115	US EPA Region 10 1200 Sixth Avenue, Suite 900 Seattle, WA 98101	Assistant Regional Counsel
Lori Warmer	503-378-3805	Oregon Division of State Lands Multnomah and Hood River Counties 775 Summer Street NE, Salem, OR 97310	Natural Resource Coordinator
Lori Warner	503-378-3805	Oregon Division of State Lands Multnomah and Hood River Counties 775 Summer Street NE, Salem, OR 97310	Manager Western Region Field Operations
Lydia Taylor	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Administrator Water Quality Division
Margaret Lut	971-673-0490	Oregon Department of Human Services Public Health Division Office of Environmental Public Health Radiation Protection Services 800 NE Oregon St Portland, OR 97232	Health Physicist Radioactive Materials Licensing Program
Marge Akers		State Division of Lands - Salem office	Permit Supervisor
Mariana Ruiz-Temple	503-378-1540	Oregon Community Right-to-Know Unit 4760 Portland Rd, Northeast Salem, OR 97305	HazMat Information Manager
Marion Atkinson		U.S. Environmental Protection Agency Region 10 1200 Sixth Avenue Seattle, WA 98101	Regional Hearing Clerk

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
Mark Copeland	503-229-5848	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Air Quality Division
Martha Dibblee		Radioactive Materials Licensing, Oregon Department of Human Resources 800 NE Oregon Street # 2 Portland OR 97232	Manager
Mary Lou Perry	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Spill Prevention & Management Plan
Mary Wahl	503-229-6993	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Administrator Waste Management and Cleanup
Michael Dubois		EPA, Region X 1200 Sixth Avenue Seattle, WA 98101	Regional Adminitrator
Michael E. Rosen	503-229-5263	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Manager, Voluntary Cleanup/Site Assessment
Michael F. Gearbeard		U.S. EPA, Region 10, 1200 Sixth Ave., Seattle, WA 98101	Director, Office of Environmental Cleanup
Michael G. Ebeling, RS		Citiy of Portland Buereau of Development Services 1900 SW 4th Ave. Suite 5000 Portland, OR 97201	Senior Environmental Soils Inspector
Michael H. Kortenhof		Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Manager UST Compliance and Cleanup Program Waste Management and Cleanup Division
Michael J. Pronold	503-823-5600	City of Portland Water Pollution Control Laboratory	Manager of Industrial Stormwater Section
Michael J. Zollitsch	503-229-5696	Oregon DEQ Air Quality Division	
Michael Kortenhof		Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	Manager of UST Compliance and Cleanup Program
Michael M. Johnston		US EPA Region X 1200 6th Ave Seattle, WA 98101	Chief New Source Permits Section
Michael Pronold	503-823-7584	City of Portland Bureau of Environmental Services (BES) Water Pollution Control Laboratory 6543 N. Burlington Ave Portland, OR 97203	Stormwater Manager
Michael R. Anderson	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Hydrogeologist UST Cleanup Section Environmental Cleanup Division
Michael T. Llewelyn	503-229-5696	Department of Environmental Quality 811 SW Sixth Avenue Portland, OR 97204	Administrator, Oregon DEQ Water Quality Division
Michael Thompson	503-378-6760	Public Utility Commision 550 Capital Street NE Salem, OR 97310	Chief, Pipeline Safety Utility Safety & Reliability
Mike Johnson		US EPA Mail Stop 517 1200 6th Avenue Seatlle, WA 98101	PSD Permit Division
Mike McCabe		State of Oregon Department of State Lands	
Mike Rosen		Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Portland Harbor Mgr

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Full Name	Telephone	Agency	Job Title or Position
Mike Woodward		City of Bonners Ferry 102 Main St. Bonners Ferry, ID 83805	City Administrator
Mitch Scheel	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	UST Policy Coordinator
Monica D. Love	503-378-3805	Division of State Lands 775 Summer Street NE Salem, OR 97301-1279	Natural Resource Assistant Field Operations - Western Region
Carol Browner		EPA 401 M Street, SW Washington, D.C. 20460	Administrator
Nancy Cody	503-229-5910	OR-OSHA Portland Field Office 9500 SW Barbur Blvd Suite 200 Portland, OR 97219	Sr. Safety Compliance Officer
Nancy Dollar	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Operations & Policy Analyst Hazardous Waste Section Land Quality Divison
Neil J. Mullane	503-229-5263	Oregon DEQ, Northwest Region 2020 SW Fourth Ave. Suite 400 Portland, OR 97201-4987	Water Quality Manager Northwest Region
Nick Nikkila	503-229-5696	Oregon DEQ 811 SW Sixth Ave. Portland, Oregon 97204	Administrator Air Quality Division
Olin Greene	378-2885	State Fire Marshal 2000 Market St Plaza, Suite 534 Salem, OR 97310	State Fire Marshal
P. D. Jewell	503-240-9333	US Dept. of Homeland Security US Coast Guard 6767 N Basin Avenue Portland, OR 97217-3992	Commanding Officer
Patrick L. Hanrahan		Oregon DEQ Northwest Region 1010 NE Couch St Portland, OR 97232	Environmental Specialist
Patti Lama	503-570-4421	Utility Notification Center 1415 S.E. Ankeny Portland, OR 97214	Chair
Paul Christiansen	503-229-5263	Oregon DEQ, NW Region 1500 SW First Avenue Suite 750 Portland, OR 97201	
Paul J. Zilka	503-229-5263	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Environmental Specialist Portland Region
Paul Kerin	509-773-5811	Oregon DEQ 2020 SW Fourth Ave, Suite 400 Portland, OR 97201	Permit Coordinator
Paul R. Cleary	503-378-3805	Oregon Division of State Lands 775 Summer St NE Salem, OR 97310	DSL Director
Perry F. Brake	360-895-6144	State of Washington, Department of Ecology	Chemist/Lab Accreditation Section Manager
Peter B. Bosserman	503-229-5696	Oregon DEQ 522 SW Fifth Ave Box 1760 Portland, OR 97207	Senior Environmental Engineer Air Quality Division
Peter H. Spendelow		Oregon DEQ 811 SW Sixth Ave. Portland, Oregon 97204	Hazardous and Solid Waste Division
Philip Brogue		Portland Chamber of Commerce	President

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
R.E. Hatchard	503-233-7176	Columbia-Willamette Pollution Authrity 1010 NE Couch St Portland, OR 97232	Program Director
R.M. Hay		Waterways Maintenance Section	Acting Chief
Ralph M. Rodia	503-378-3473	Oregon Office of the State Fire Marshal 4760 Portland Rd., NE Salem, OR 97305	Chief Deputy State Fire Marshal
Randy Bailey	503-229-6736	Oregon DEQ	
Ranei L. Nomura	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Storm Water Coordinator
Ray D. Paris	503-731-4014	Oregon Department of HR Health Division 800 NE Oregon Street #21 Portland, OR 97232	Manager
Ray Ellis		Kansas Association of Commerce and Industry 500 First National Tower Building Topeka, Kansas 66602	
Rebecca Paul	503-229-5263	Oregon DEQ, NW Region 1500 SW First Avenue Suite 750 Portland, OR 97201	Environmental Specialist
Rich Reiter	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Manager Hazardous Materials Section Hazardous and Solid Waste Division
Richard Applegate		National Marine Fisheries Service 525 NE Orchard St, Suite 500 Portland, Oregon 97232	
Richard H. Wixom	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Environmental Specialist
Richard J. Nichols	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Administrator Water Quality Division
Richard J. Volpel	503-229-5245	Oregon DEQ 522 SW 5th Ave Portland, OR 97204	Environmental Analyst
Robert A. Crosby	503-731-4014	Oregon Department of HR Health Division 800 NE Oregon Street #21 Portland, OR 97232	Health Physicist
Robert Harris		Oregon DEQ 811 SW 6th Ave Portland, OR 97204	
Robert P. Baumgarter		Oregon DEQ NW Region 2020 SW 4th Ave, Suite 400 Portland, OR 97201	Manager, Water Quality Source Control
Rod Longfellow		MSHA	Inspector
Romie Nichols	503-229-5263	Oregon DEQ, NW Division 2020 SW Fourth Ave, Suite 400 Portland, OR 97201	Permit Coordinator
Ron Culver		Oregon Operations Office US EPA 811 SW 6th Ave Portland, OR	Environmental Engineer
Rosemary Nichols	503-229-6635	Oredon DEQ, NW Region 2020 SW 4th Ave, #400 Portland, OR 97201	Permit Tracker
Sara Laumann	503-229-5696	Oregon DEQ 811 SW Sixth Ave Portland, OR 97204	Clean Air Act Permit Coordinator Air Quality Division

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Full Name	Telephone	Agency	Job Title or Position
Shauna Turnbull		DOT - Research and Special Programs Administration 400 Seventh St. SW, Room 7128 Washington, D.C. 20590	Information Resources Manager
Sherry Mills	823-7700	Bureau of Planning City of Portland Permit Center 1120 SW Fifth Ave Porltand, OR 97204	City Planner
Stacey Wenger	503-823-7586	Office of Planning and Development Review Land Use Review Division 1900 SW Fourth Ave, Suite 5000 Portland, OR 97201	Land Use Review
Stanley T. Kastanas		Office of Pipeline Safety 400 Seventh St. SW Washington, D.C. 20590	Director of Enforcement Actions/Programs, OPS
Stephen J. Purchase	503-378-3805	Division of State Lands 775 Summer Street NE Salem, OR 97301-1279	Assistant Director, Field Operations
Steve Greenwood	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Administrator
Steve Hagedorn		MSHA	Inspector
Steve Lockwood		Oregon DEQ 5222 SW 5th Ave PO Box 1760 Portland, OR 97207	Supervisor Porgram Operations Air Quality Division
Steve Lockwood		Oregon DEQ PO Box 1760 Portland, OR 97207	Chairman Portland Air Quality Maintenance Area Advisory Committee
Steve Minshall	913-451-8900 ext 276	MSHA	
Susan Eidman	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Hazardous Waste Dept.
Susan Feldman	503-823-7700	City of Portland Bureau of Planning 1120 SW Fifth Avenue, Room 1002 Portland, OR 97204	Rendered Administrative Decision on Proposed Land Use Action
Sylvia K Lowrance		US EPA Washington, DC 20460	Director Office of Solid Waste
Sylvia Martin	503-731-4081	Oregon Department of HR Health Division	
Tami Hubert	503-378-3805	Oregon DSL	Property Manager
Tara Martich	206-553-0039	US EPA Region 10 1200 Sixth Avenue Seattle, WA 97101	Remedial Project Manager
Ted Maxwell		WA State Dept. of Agriculture Pesticide Management Division 1111 Washington St PO Box 42589 Olympia, WA 98504	Program Manager Registation Services
Terru Early	503-378-8587	Oregon State Marine Board 435 Commercial St. NE #400 PO BOX 14145 Salem, OR 97309	Watercraft Registration Specialist
Terry D. Lindsey	503-731-4081	Oregon Department of HR Health Division 800 NE Oregon Street #21 Portland, OR 97232	Manager
Thomas R. Bispam	503-229-5696	Oregon DEQ 522 SW Fifth Ave Box 1760 Portland, OR 97207	Administrator Air Quality Division

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Full Name	Telephone	Agency	Job Title or Position
Timothy P. Dean	503-823-5600	City of Portland Environmental Services Water Pollution Control Laboratory 6543 N. Burlington Ave., Portland, Oregon 97203	Industrial Stormwater Section
Tom Bispham	503-229-5263	Oregon DEQ NW Region 2020 SW 4th Ave, Suite 400 Portland, OR 97201	Administrator, NW Region
Tom Fitzsimmons		Oregon Dept. of Ecology, POB 47606, Olympia, WA 98504	Director
Tom Gainer, P.E.	503-229-6945	Oregon DEQ, NW Office 2020 SW 4th Ave, Suite 400 Portland, OR 97201	Project Manager
Tom Rosetta	503-229-5263	Department of Environmental Quality Northwest Region Portland Office 2020 SW Fourth Avenue, Suite 400 Portland, OR 97201	Water Quality Specialist / General Permitting
Tony Bispham	503-229-5263	Oregon DEQ - Northwest Region 2020 SW 4th, Suite 400 Portland, OR 97201	Northwest Region Administrator
Trey Harbert		Port of Portland, Lower Willamette Group	Environmental Program Manager, Co-Chairman
Uri Papish	503-229-6480	Oregon DEQ - Headquarters 811 SW Sixth Avenue Portland, OR 97204	Program Operations Manager
Vincent P. Barabba		U.S. Department of Commerce Social and Economic Statistics Administration Bureau of the Census Washington, D.C. 20233	Director, Bureau of the Census
W. B. Paynter		Regulatory and Environmental Resource Branch, Planning & Engineering Division	Chief
W. E. Eldridge		Environmental Protection Agency Region X 1200 Sixth Avenue Seattle, Washington 98101	Acting Chief, Administrative Section, Permits Branch
W. F. Horning	503-248-3043	Multnomah County Division of Land Use Planning 1107 SW 4th Ave Portland, OR 97204	
W. L. Banks	816-374-3778	U. S. Environmental Protection Agency Surveillance and Analysis Division Region VII 26 Funston Road Kansas City, Kansas 66115	Chief, Emergency Response Branch
Walter West	503-229-5263	Oregon DEQ Northwest Region 1500 SW First Ave Portland, OR 97201	Storm Water Specialist
Wayne Hanson	227-7176	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Deputy Program Director Columbia-Willamette Region
Wendy Anderson	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Emission Fee Coordinator Air Quality Division
Wendy Sims		Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Program Operations Manager Air Quality Division
Wesley C. Risher	503-229-5696	Oregon DEQ 811 SW 6th Ave Portland, OR 97204	Emission Inventory Coordinator Technical Services Section Air Quality Division
William H. Young	503-229-5395	Oregon DEQ 1234 SW Morrison St Portland, OR 97205	Director

All federal, state, and local authorities that regulated and/or interacted with the owner or operator of each property.

Full Name	Telephone	Agency	Job Title or Position
		Bureau of the Census 1201 East 10th Street Jeffersonville, IN 47132	
		Environmental Serivces City of Portland 1211 SW Fifth, Suite 800 Portland, OR 97204 NMFS Oregon State Habitat Office 1201 NE Lloyd Blvd. Suite 1100 Portland, OR 97232	

July 11, 2007

Department of Environmental Quality
Water Quality Division
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987

Re: File No. 107213 ORR80-0082

Please find attached; analytical and monitoring information obtained during the period July 1, 2006 though June 30, 2007 for Ash Grove Cement Companys Portland Import Terminal located at 3737 N Port Center Way, 97227.

A new pH treatment system was installed after the last stormwater sample was taken. This system utilizes CO2 for treating pH and the system has been working wonderfully.

If you have any questions please call;

Glenn F. Dollar
503-286-1677 ext. 423

Glenn F. Dollar

Glenn F. Dollar

Environmental Manager
Ash Grove Cement Company
cc: City of Portland Environmental Services

2007 07-11
STORMWR RESULT
P-7A terminal

(Stormwater Port Term)

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PHONE: (503) 285-4621
FAX: (503) 286-4987

PROJECT NAME: 2006 1200Z Stormwater Test

SUBMITTED: 11/02/06 15:58

REPORT DATE: 11/14/06 15:58 **REPORT NUMBER:** 6110302

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
6110302-01	SouthTerm Dock	11/02/2006	1500	Water
6110302-02	NorthTerm Dock	11/02/2006	1500	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME
6110302-01	**SAMPLE ID: SouthTerm Dock**						
General Bench Analysis							
O & G, TOTAL (HEM)	EPA 1664	TOTAL OIL AND GREASE	ND	mg/L	2.0	JRW	11/14/2006 15:34
PH	EPA 150.1/9040	pH	8.97	SU		DAU	11/02/2006 15:30
		TEMPERATURE (C)	7.40	SU			
SUSPENDED SOLIDS	EPA 160.2	TOTAL SUSPENDED SOLIDS	21	mg/L	2.0	DAU	11/08/2006 08:53
Total Metals by Inductively Coupled Plasma							
COPPER - ICP	EPA 200.7/6010B	COPPER	ND	mg/L	0.005	KEL	11/08/2006 08:26
LEAD - ICP		LEAD	ND	mg/L	0.005	KEL	11/08/2006 08:26
ZINC - ICP		ZINC	0.050	mg/L	0.003	KEL	11/08/2006 08:26
6110302-02	**SAMPLE ID: NorthTerm Dock**						
General Bench Analysis							
O & G, TOTAL (HEM)	EPA 1664	TOTAL OIL AND GREASE	5.6	mg/L	2.0	JRW	11/14/2006 15:34
PH	EPA 150.1/9040	pH	6.48	SU		DAU	11/02/2006 15:30
		TEMPERATURE (C)	15.5	SU			
SUSPENDED SOLIDS	EPA 160.2	TOTAL SUSPENDED SOLIDS	220	mg/L	2.0	DAU	11/08/2006 08:53
Total Metals by Inductively Coupled Plasma							
COPPER - ICP	EPA 200.7/6010B	COPPER	0.019	mg/L	0.005	KEL	11/08/2006 08:26
LEAD - ICP		LEAD	ND	mg/L	0.005	KEL	11/08/2006 08:26
ZINC - ICP		ZINC	1.2	mg/L	0.003	KEL	11/08/2006 08:26

ORIGINAL

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Authorized for Release By:

Richard D. Reid - Laboratory Director

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PHONE: (503) 285-4621
FAX: (503) 286-4987

PROJECT NAME: 1200Z Stormwater
SUBMITTED: 06/05/07 09:55

REPORT DATE: 06/11/07 05:23 REPORT NUMBER: 7060503 PAGE: 1 OF 5

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
7060503-01	North Terminal	06/05/2007	0800	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
7060503-01	**SAMPLE ID: North Terminal**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664	TOTAL OIL AND GREASE	ND	mg/L	2.0	JRW	06/07/2007 13:53	
PH	EPA 150.1/9040	pH	9.34	SU		DAU	06/05/2007 18:17	
		TEMPERATURE (C)	18.7	SU				
SUSPENDED SOLIDS	EPA160.2/SM2540	TOTAL SUSPENDED SOLIDS	14.0	mg/L	5.00	DAU	06/07/2007 10:33	
Total Metals by Inductively Coupled Plasma								
COPPER - ICP	EPA 200.7/6010B	COPPER	0.015	mg/L	0.005	KEL	06/07/2007 10:43	
LEAD - ICP		LEAD	0.007	mg/L	0.005	KEL	06/07/2007 10:43	
ZINC - ICP		ZINC	0.075	mg/L	0.003	KEL	06/07/2007 10:43	

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Authorized for Release By: Charles Morrow
Charles Morrow - Laboratory Director

COLUMBIA INSPECTION, INC 7133 N. Lombard, Portland, OR 97203 Ph:(503) 286-9464 Fax:(503) 286-5355 E-mail:cilabqa@ColumbiaInspection.com

CERTIFICATE OF ANALYSIS

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 7E25012 - Water Extraction										
QC SAMPLE: Blank (7E25012-BLK1)						Prepared & Analyzed: 05/25/07				
TOTAL OIL AND GREASE	ND	2.0	mg/L							
QC SAMPLE: LCS (7E25012-BS1)						Prepared & Analyzed: 05/25/07				
TOTAL OIL AND GREASE	43.8	2.0	mg/L	43.0		102	79-114			
QC SAMPLE: LCS Dup (7E25012-BSD1)						Prepared & Analyzed: 05/25/07				
TOTAL OIL AND GREASE	47.6	2.0	mg/L	43.0		111	79-114	8.32	18	
BATCH: Batch 7F05014 - General Preparation										
QC SAMPLE: Duplicate (7F05014-DUP1)					Source: 7060517-02	Prepared & Analyzed: 06/05/07				
pH	7.35		SU		7.35			0.00	10	
TEMPERATURE (C)	20.4		"		20.4			0.00	200	
QC SAMPLE: Reference (7F05014-SRM1)						Prepared & Analyzed: 06/05/07				
pH	5.04		SU	5.00		101	97.5-102.			
QC SAMPLE: Reference (7F05014-SRM2)						Prepared & Analyzed: 06/05/07				
pH	8.07		SU	8.00		101	97.5-102.			
BATCH: Batch 7F07006 - General Preparation										
QC SAMPLE: Blank (7F07006-BLK1)						Prepared & Analyzed: 06/07/07				
TOTAL SUSPENDED SOLIDS	ND	1.00	mg/L							
QC SAMPLE: Duplicate (7F07006-DUP1)					Source: 7060610-01	Prepared & Analyzed: 06/07/07				
TOTAL SUSPENDED SOLIDS	7.00	5.00	mg/L		7.00			0.00	20	

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CERTIFICATE OF ANALYSIS

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 7F07006 - General Preparation										
QC SAMPLE: Reference (7F07006-SRM1)					Prepared & Analyzed: 06/07/07					
TOTAL SUSPENDED SOLIDS	24.0	5.00	mg/L	27.6		87.0	80-120			

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Authorized for Release By:CI Charles Morris

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CERTIFICATE OF ANALYSIS

Total Metals by Inductively Coupled Plasma - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 7F07008 - ***Metals Prep*										
QC SAMPLE: Blank (7F07008-BLK1)					Prepared & Analyzed: 06/07/07					
COPPER	ND	0.0009	mg/L							
LEAD	ND	0.0009	"							
ZINC	ND	0.0009	"							
QC SAMPLE: Calibration Blank (7F07008-CCB1)					Prepared & Analyzed: 06/07/07					
COPPER	ND	0.004	mg/L							
LEAD	ND	0.004	"							
ZINC	ND	0.003	"							
QC SAMPLE: Calibration Blank (7F07008-CCB2)					Prepared & Analyzed: 06/07/07					
COPPER	ND	0.004	mg/L							
LEAD	ND	0.004	"							
ZINC	ND	0.003	"							
QC SAMPLE: Calibration Blank (7F07008-CCB3)					Prepared & Analyzed: 06/07/07					
COPPER	ND	0.004	mg/L							
LEAD	ND	0.004	"							
ZINC	ND	0.003	"							
QC SAMPLE: Matrix Spike (7F07008-MS1)			**Source: 7060516-04**		Prepared & Analyzed: 06/07/07					
COPPER	0.122	0.005	mg/L	0.111	0.006	106	80-120			
LEAD	0.112	0.005	"	0.111	ND	101	80-120			
ZINC	0.156	0.003	"	0.111	0.040	106	80-120			
QC SAMPLE: Matrix Spike Dup (7F07008-MSD1)			**Source: 7060516-04**		Prepared & Analyzed: 06/07/07					
COPPER	0.123	0.005	mg/L	0.111	0.006	105	80-120	0.816	15	
LEAD	0.111	0.005	"	0.111	ND	100	80-120	0.897	15	
ZINC	0.178	0.003	"	0.111	0.040	124	80-120	11.9	15	

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CERTIFICATE OF ANALYSIS

Total Metals by Inductively Coupled Plasma - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 7F07008 - ***Metals Prep***										
QC SAMPLE: Reference (7F07008-SRM1)					Prepared & Analyzed: 06/07/07					
COPPER	1.02	0.004	mg/L	1.00		102	85-115			
LEAD	1.02	0.004	"	1.00		102	85-115			
ZINC	1.04	0.003	"	1.00		104	85-115			
QC SAMPLE: Reference (7F07008-SRM2)					Prepared & Analyzed: 06/07/07					
COPPER	1.00	0.004	mg/L	1.00		100	85-115			
LEAD	0.998	0.004	"	1.00		99.8	85-115			
ZINC	1.06	0.003	"	1.00		106	85-115			
QC SAMPLE: Reference (7F07008-SRM3)					Prepared & Analyzed: 06/07/07					
COPPER	1.02	0.004	mg/L	1.00		102	85-115			
LEAD	1.04	0.004	"	1.00		104	85-115			
ZINC	1.10	0.003	"	1.00		110	85-115			

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Authorized for Release By:CI Charles Morrow

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Visual Monitoring Log
Ash Grove Cement
NPDES Permit File No. 107213

Year 2006				
Month	**Date**	**floating Solids**	**oil & grease Sheen**	**Weather conditions**
January				
February	27-Feb-06	None	None	Rain
March	27-Mar-06	None	None	Light Rain
April	10-Apr-06	None	None	Rain
May	22-May-06	None	None	rain
June	14-Jun-06	NONE	None	Rain
July	17-Jul-06	None	None	No Event
August	30-Aug-06	None	None	mist light rain
September	18-Sep-06	None	None	Rain
October	4-Oct-06	None	None	Light Rain
November	2-Nov-06	None	None	Moderate Rain
December	11-Dec-06	None	None	Hard Rain

Visual Monitoring Log
Ash Grove Cement
NPDES Permit File No. 107213

Monitoring Location: North Terminal

Month	Monitoring Date	Oil and Grease Sheen Present? (Yes/No)	Color or Floating Solids Present? (Yes/No)	Action Taken	Sampler's Initials
July					
August					
September					
October					
November					
December					
January	1-16-2007	NO	NO	None	JH
February	2-8-2007	NO	NO	NONE	JH
March	3-9-2007	NO	NO	NONE	JH
April	4-10-2007	NO	NO	NONE	JH
May	5-3-2007	N0	N0	None	JH
June	6-5-2007	No	No	None	JH

For months when no discharges occur, write in "No Discharge" for that month.

Signature Requirement

I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature of Responsible Official: Glenn F. Dollar

Name and Title (Please Print): Glenn F. Dollar EHS Manager

Date of Signature: 7/11/07 **Telephone:** 503-286-1677

STORM WATER SAMPLING CHECK OFF SHEET

SAMPLE DATE	6-5-07
SAMPLE TIME:	08:00
LOCATION OF SAMPLE:	North Term Dock
WEATHER:	Light Rain
METER CALIBRATED: Y/N	Yes
SAMPLE Ph:	9.7
SHEEN?	NO
UNUSUAL ODOR?	NO
SAMPLE TAKEN BY:	John Hore
SIGNATURE:	John Hore
DELEIVERED TO:	Columbia Inspection
DELIVERY DATE & TIME:	08:00 6-5-07
SAMPLES PASSED TO:	
NOTES:	

January 9, 2009

DEQ NW Region
Water Quality Division
2020 SW 4th, Suite 400
Portland, OR 97201

RE: Annual General 1700B Report
File No: 110230 ORG 750017

DEQ NW Region:

Enclosed please find the monitoring results for the truck wash water at our bulk cement terminal located at 3737 N Port Center Way, Portland, OR 97217.

In January of 2008 the truck wash water pH test result was less than 6.0 and we found the problem to be associated with how we were administering the hydrochloric acid. Changes were made to this procedure and the test results for the following 11 months were within the allowable limits. During the month of December the truck wash was closed for the majority of the month due to inclement weather.

If you have any questions please contact me at 503-247-5423.

Glenn F. Dollar

Environmental Manager
Ash Grove Cement Company

WPCF #1700-B Wash Water General Permit Discharge Monitoring Report

Complete reports each month, submit all reports annually by January 15th to:
Oregon DEQ

Legal Name: Ash Grove Cement Company
Site/File ID #: 110230
Common Name: Ash Grove Cement Company
County: Multnomah
Facility Location: , 3737 N. Port Center Way Portland, Or 97217
Year Covered By Report: 2008

Parameter and Requirements	Sample Date	Sample Results
Oil and Grease (mg/L) – Monthly grab sample*, representative of effluent. Shall not exceed 15 mg/L.		
January	1-17-08	ND
February	2-20-08	5.1
March	3-10-08	ND
April	4-2-08	ND
May	5-28-08	6.5
June	6-24-08	ND
July	7-30-08	ND
August	8-13-08	ND
September	9-18-08	ND
October	10-09-08	ND
November	11-18-08	ND
December	ICE System Shut	Down Prevent Freeze
pH – Monthly grab sample, representative of effluent. Shall be within 6.0 to 9.0.		
January	1-17-08	4.92
February	2-20-08	6.42
March	3-10-08	6.62
April	4-2-08	6.73
May	5-28-08	8.77
June	6-24-08	6.59
July	7-30-08	7.98
August	8-13-08	8.12
September	9-18-08	6.74
October	10-09-08	7.58
November	11-18-08	7.01
December	ICE System shut	Down Prevent Freeze

* After the first year of operation, AND consistently meeting the effluent limits over a six-month period, the Oil and Grease monitoring frequency is reduced to one sample per quarter.

Signature Requirement

I certify, under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature of Responsible Official: Glenn F. Dollar

Name and Title (Please Print): Glenn F. Dollar

Date of Signature: 01/09/2009 **Telephone:** 503-247-5423

AGC0012266

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217
PHONE: (503) 285-4621
FAX: (503) 286-4987

ORIGINAL

PROJECT NAME: Truck Wash

SUBMITTED: 11/18/08 12:30

REPORT DATE: 11/21/08 08:40 **REPORT NUMBER:** 8111803

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8111803-01	truck wash	11/18/2008	1200	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8111803-01	SAMPLE ID: truck wash							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	6.0	SOB	11/19/2008 16:10	
PH	SM 4500 H+ B	pH	7.01	SU		MBS	11/18/2008 14:50	
		TEMPERATURE (C)	10.9	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8K18004 - General Preparation										
QC SAMPLE: Duplicate (8K18004-DUP1)			Source: 8111803-01		Prepared & Analyzed: 11/18/08					
pH	7.06		SU		7.01			0.711	10	
TEMPERATURE (C)	9.90		"		10.9			9.62	200	
QC SAMPLE: Reference (8K18004-SRM1)					Prepared & Analyzed: 11/18/08					
pH	4.98		SU	5.00		99.6	97.5-102.			
BATCH: Batch 8K19008 - * DEFAULT PREP *****										
QC SAMPLE: Blank (8K19008-BLK1)					Prepared & Analyzed: 11/19/08					
OIL/GREASE, TOTAL	ND	2.0	mg/L							
QC SAMPLE: LCS (8K19008-BS1)					Prepared & Analyzed: 11/19/08					
OIL/GREASE, TOTAL	36.9	6.0	mg/L	40.5		91.1	79-114			
QC SAMPLE: LCS Dup (8K19008-BSD1)					Prepared & Analyzed: 11/19/08					
OIL/GREASE, TOTAL	33.3	6.0	mg/L	40.5		82.2	79-114	10.3	18	

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Morgan Schafer - QA/QC Director

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PROJECT NAME: Truck Wash

ORIGINAL

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FAX: (503) 286-4987

SUBMITTED: 10/09/08 10:55

REPORT DATE: 10/13/08 15:35 | REPORT NUMBER: 8100904 | PAGE: 1 OF 1

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8100904-01	Truck Wash	10/09/2008	1022	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8100904-01	SAMPLE ID: Truck Wash							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	6.0	SOB	10/10/2008 16:55	
PH - FIELD TEST	SM 4500 H+ B	pH	7.58	SU		VV	10/09/2008 11:35	
		TEMPERATURE (C)	17.3	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8J10008 - **Field Prep**										
QC SAMPLE: Duplicate (8J10008-DUP1)				Source: 8100905-01	Prepared & Analyzed: 10/09/08					
pH	5.05		SU		5.07			0.395	10	
TEMPERATURE (C)	165		"		16.6			163	200	
QC SAMPLE: Reference (8J10008-SRM1)					Prepared & Analyzed: 10/09/08					
pH	7.96		SU	8.00		99.5	97.5-102.			
BATCH: Batch 8J10011 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8J10011-BLK1)					Prepared & Analyzed: 10/10/08					
OIL/GREASE, TOTAL	ND	6.0	mg/L							
QC SAMPLE: LCS (8J10011-BS1)					Prepared & Analyzed: 10/10/08					
OIL/GREASE, TOTAL	36.4	6.0	mg/L	43.1		84.5	79-114			
QC SAMPLE: LCS Dup (8J10011-BSD1)					Prepared & Analyzed: 10/10/08					
OIL/GREASE, TOTAL	36.8	6.0	mg/L	43.1		85.4	79-114	1.09	18	

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Authorized for Release By:
Morgan Schafer - QAQC Director

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CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PROJECT NAME: Truck Wash

ORIGINAL

PHONE: (503) 286-4621
FAX: (503) 286-4987

SUBMITTED: 09/18/08 09:25

REPORT DATE: 09/23/08 16:46 | REPORT NUMBER: 8091801 | PAGE: 1 OF 1

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8091801-01	Truck Wash	09/18/2008	0830	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8091801-01	SAMPLE ID: Truck Wash							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	6.0	SOB	09/23/2008 16:56	
PH	SM 4500 H+ B	pH	6.74	SU		DK	09/18/2008 14:10	
		TEMPERATURE (C)	18.6	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8I18003 - General Preparation										
QC SAMPLE: Duplicate (8I18003-DUP1)				Source: 8091801-01		Prepared & Analyzed: 09/18/08				
pH	6.81		SU		6.74			1.03	10	
TEMPERATURE (C)	18.5		"		18.6			0.539	200	
QC SAMPLE: Reference (8I18003-SRM1)						Prepared & Analyzed: 09/18/08				
pH	5.04		SU	5.00		101	97.5-102.			
QC SAMPLE: Reference (8I18003-SRM2)						Prepared & Analyzed: 09/18/08				
pH	8.09		SU	8.00		101	97.5-102.			
BATCH: Batch 8I23005 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8I23005-BLK1)						Prepared & Analyzed: 09/23/08				
OIL/GREASE, TOTAL	ND	6.0	mg/L							
QC SAMPLE: LCS (8I23005-BS1)						Prepared & Analyzed: 09/23/08				
OIL/GREASE, TOTAL	42.9	6.0	mg/L	43.1		99.5	79-114			
QC SAMPLE: LCS Dup (8I23005-BSD1)						Prepared & Analyzed: 09/23/08				
OIL/GREASE, TOTAL	41.2	6.0	mg/L	43.1		95.6	79-114	4.04	18	

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CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
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Portland OR, 97217

PROJECT NAME: Truck Wash

ORIGINAL

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FAX: (503) 286-4987

SUBMITTED: 08/13/08 15:33

REPORT DATE: 08/18/08 16:46 | REPORT NUMBER: 8081301 | PAGE: 1 OF 1

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8081301-01	Truckwash	08/13/2008	0955	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8081301-01	**SAMPLE ID: Truckwash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	6.0	SOB	08/18/2008 16:41	
PH	SM 4500 H+ B	pH	8.12	SU		DK	08/13/2008 16:34	
		TEMPERATURE (C)	22.9	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8H13005 - General Preparation										
QC SAMPLE: Duplicate (8H13005-DUP1)				Source: 8081301-01	Prepared & Analyzed: 08/13/08					
pH	8.18		SU		8.12			0.736	10	
TEMPERATURE (C)	22.9		"		22.9			0.00	200	
QC SAMPLE: Reference (8H13005-SRM1)					Prepared & Analyzed: 08/13/08					
pH	5.05		SU	5.00		101	97.5-102.			
QC SAMPLE: Reference (8H13005-SRM2)					Prepared & Analyzed: 08/13/08					
pH	8.06		SU	8.00		101	97.5-102.			
BATCH: Batch 8H18005 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8H18005-BLK1)					Prepared & Analyzed: 08/18/08					
OIL/GREASE, TOTAL	ND	2.0	mg/L							
QC SAMPLE: LCS (8H18005-BS1)					Prepared & Analyzed: 08/18/08					
OIL/GREASE, TOTAL	38.9	6.0	mg/L	43.1		90.3	79-114			
QC SAMPLE: LCS Dup (8H18005-BSD1)					Prepared & Analyzed: 08/18/08					
OIL/GREASE, TOTAL	40.2	6.0	mg/L	43.1		93.3	79-114	3.29	18	

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CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PROJECT NAME: Truck Wash

ORIGINAL

PHONE: (503) 285-4621
FAX: (503) 286-4987

SUBMITTED: 07/30/08 09:40

REPORT DATE: 08/01/08 15:48 **REPORT NUMBER: 8073001** **PAGE: 1 OF 1**

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8073001-01	truck wash	07/30/2008	0830	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8073001-01	**SAMPLE ID: truck wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	6.0	SOB	07/31/2008 16:16	
PH	SM 4500 H+ B	pH	7.98	SU		DK	07/30/2008 09:57	
		TEMPERATURE (C)	18.2	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8G30002 - General Preparation										
QC SAMPLE: Duplicate (8G30002-DUP1)			Source: 8073001-01		Prepared & Analyzed: 07/30/08					
pH	8.02		SU		7.98			0.500	10	
TEMPERATURE (C)	18.4		"		18.2			1.09	200	
QC SAMPLE: Reference (8G30002-SRM1)					Prepared & Analyzed: 07/30/08					
pH	5.02		SU	5.00		100	97.5-102.			
QC SAMPLE: Reference (8G30002-SRM2)					Prepared & Analyzed: 07/30/08					
pH	8.00		SU	8.00		100	97.5-102.			
BATCH: Batch 8G31002 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8G31002-BLK1)					Prepared & Analyzed: 07/31/08					
OIL/GREASE, TOTAL	ND	6.0	mg/L							
QC SAMPLE: LCS (8G31002-BS1)					Prepared & Analyzed: 07/31/08					
OIL/GREASE, TOTAL	34.2	6.0	mg/L	43.1		79.4	79-114			
QC SAMPLE: LCS Dup (8G31002-BSD1)					Prepared & Analyzed: 07/31/08					
OIL/GREASE, TOTAL	33.4	6.0	mg/L	43.1		77.5	79-114	2.37	18	

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Authorized for Release By:
Vay Vong For Morgan Schafer - QAQC Director

AGC0012271

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PROJECT NAME: Truck Wash

PHONE: (503) 285-4621
FAX: (503) 286-4987

ORIGINAL

SUBMITTED: 06/24/08 09:47

REPORT DATE: 06/26/08 15:42 | REPORT NUMBER: 8062401 | PAGE: 1 OF 1

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8062401-01	Truck Wash	06/24/2008	0918	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8062401-01	**SAMPLE ID: Truck Wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	6.0	SOB	06/25/2008 15:13	
PH	SM 4500 H+ B	pH	6.59	SU		DK	06/24/2008 13:16	
		TEMPERATURE (C)	17.8	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8F24006 - General Preparation										
QC SAMPLE: Duplicate (8F24006-DUP1)				Source: 8062401-01	Prepared & Analyzed: 06/24/08					
pH	6.66		SU		6.59			1.06	10	
TEMPERATURE (C)	18.1		"		17.8			1.67	200	
QC SAMPLE: Reference (8F24006-SRM1)					Prepared & Analyzed: 06/24/08					
pH	5.02		SU	5.00		100	97.5-102.			
QC SAMPLE: Reference (8F24006-SRM2)					Prepared & Analyzed: 06/24/08					
pH	8.01		SU	8.00		100	97.5-102.			
BATCH: Batch 8F25008 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8F25008-BLK1)					Prepared & Analyzed: 06/25/08					
OIL/GREASE, TOTAL	ND	6.0	mg/L							
QC SAMPLE: LCS (8F25008-BS1)					Prepared & Analyzed: 06/25/08					
OIL/GREASE, TOTAL	35.8	6.0	mg/L	42.5		84.2	79-114			
QC SAMPLE: LCS Dup (8F25008-BSD1)					Prepared & Analyzed: 06/25/08					
OIL/GREASE, TOTAL	34.0	6.0	mg/L	42.5		80.0	79-114	5.16	18	

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Authorized for Release By:
Morgan Schafer - QAQC Director

COLUMBIA INSPECTION, INC 7133 N. Lombard, Portland, OR 97203 Ph:(503) 286-9464 Fax:(503) 286-5355 E-mail:cilabqa@ColumbiaInspection.com

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PHONE: (503) 285-4621
FAX: (503) 286-4987

PROJECT NAME: Truck Wash

SUBMITTE[illegible] ORIGINAL

REPORT DATE: 05/30/08 15:19 **REPORT NUMBER: 8052802** **PAGE: 1 OF 1**

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8052802-01	Truck Wash	05/28/2008	1006	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8052802-01	**SAMPLE ID: Truck Wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	6.5	mg/L	2.4	SOB	05/30/2008 14:09	
PH	EPA 4500 H+ B	pH	8.77	SU		RT	05/28/2008 11:10	
		TEMPERATURE (C)	17.1	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8E29002 - General Preparation										
QC SAMPLE: Duplicate (8E29002-DUP1)				Source: 8052705-02	Prepared & Analyzed: 05/28/08					
pH	6.62		SU		6.70			1.20	10	
TEMPERATURE (C)	5.50		"		3.90			34.0	200	
QC SAMPLE: Reference (8E29002-SRM1)					Prepared & Analyzed: 05/28/08					
pH	8.02		SU	8.00		100	97.5-102.			
BATCH: Batch 8E30008 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8E30008-BLK1)					Prepared & Analyzed: 05/30/08					
OIL/GREASE, TOTAL	ND	2.0	mg/L							
QC SAMPLE: LCS (8E30008-BS1)					Prepared & Analyzed: 05/30/08					
OIL/GREASE, TOTAL	37.9	2.4	mg/L	41.8		90.7	79-114			
QC SAMPLE: LCS Dup (8E30008-BSD1)					Prepared & Analyzed: 05/30/08					
OIL/GREASE, TOTAL	41.0	2.4	mg/L	41.8		98.1	79-114	7.86	18	

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Morgan Schafer - QA/QC Director

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PHONE: (503) 285-4621
FAX: (503) 286-4987

PROJECT NAME: Truck Wash

SUBMITTED: 04/02/08 11:45

ORIGINAL

REPORT DATE: 04/10/08 15:35 REPORT NUMBER: 8040202 PAGE: 1 OF 1

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8040202-01	Truck Wash	04/02/2008	0900	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8040202-01	**SAMPLE ID: Truck Wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	2.0	SO	04/10/2008 15:36	
PH	EPA 4500 H+ B	pH	6.73	SU		DK	04/02/2008 15:42	
		TEMPERATURE (C)	11.7	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8D02008 - General Preparation										
QC SAMPLE: Duplicate (8D02008-DUP1)				Source: 8040202-01	Prepared & Analyzed: 04/02/08					
pH	6.81		SU		6.73			1.18	10	
TEMPERATURE (C)	12.7		"		11.7			8.20	200	
QC SAMPLE: Reference (8D02008-SRM1)					Prepared & Analyzed: 04/02/08					
pH	5.01		SU	5.00		100	97.5-102.			
QC SAMPLE: Reference (8D02008-SRM2)					Prepared & Analyzed: 04/02/08					
pH	8.03		SU	8.00		100	80-120			
BATCH: Batch 8D10014 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8D10014-BLK1)					Prepared & Analyzed: 04/10/08					
OIL/GREASE, TOTAL	ND	2.0	mg/L							
QC SAMPLE: LCS (8D10014-BS1)					Prepared & Analyzed: 04/10/08					
OIL/GREASE, TOTAL	43.2	2.0	mg/L	41.8		103	79-114			
QC SAMPLE: LCS Dup (8D10014-BSD1)					Prepared & Analyzed: 04/10/08					
OIL/GREASE, TOTAL	46.6	2.0	mg/L	41.8		111	79-114	7.57	18	

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Morgan Schafer - QAQC Director

AGC0012274

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PHONE: (503) 285-4621
FAX: (503) 286-4987

PROJECT NAME: Truck Wash

SUBMITTED: 03/10/08 10:35

REPORT DATE: 03/20/08 11:17 **REPORT NUMBER:** 8031001

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8031001-01	Truck Wash	03/10/2008	0940	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8031001-01	**SAMPLE ID: Truck Wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664A	OIL/GREASE, TOTAL	ND	mg/L	2.0	SO	03/19/2008 17:09	
PH	EPA 4500 H+ B	pH	6.62	SU		DK	03/10/2008 11:46	
		TEMPERATURE (C)	12.6	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8C10001 - General Preparation										
QC SAMPLE: Duplicate (8C10001-DUP1)				Source: 8031001-01	Prepared & Analyzed: 03/10/08					
pH	6.68		SU		6.62			0.902	10	
TEMPERATURE (C)	12.6		*		12.6			1.57	200	
QC SAMPLE: Reference (8C10001-SRM1)					Prepared & Analyzed: 03/10/08					
pH	4.99		SU	5.00		99.8	97.5-102.			
QC SAMPLE: Reference (8C10001-SRM2)					Prepared & Analyzed: 03/10/08					
pH	7.99		SU	8.00		99.9	97.5-102.			
BATCH: Batch 8C19007 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8C19007-BLK1)					Prepared & Analyzed: 03/19/08					
OIL/GREASE, TOTAL	ND	2.0	mg/L							
QC SAMPLE: LCS (8C19007-BS1)					Prepared & Analyzed: 03/19/08					
OIL/GREASE, TOTAL	30.5	2.0	mg/L	120		25.4	79-114			
QC SAMPLE: LCS Dup (8C19007-BSD1)					Prepared & Analyzed: 03/19/08					
OIL/GREASE, TOTAL	32.1	2.0	mg/L	120		26.8	79-114	5.11	18	

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Morgan Schafer - QAQC Director

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CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PROJECT NAME: Truck Wash

PHONE: (503) 285-4621
FAX: (503) 286-4987

SUBMITTED: 02/20/08 12:45

REPORT DATE: 03/03/08 13:24 | REPORT NUMBER: 8022001 | PAGE: 1 OF 2

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8022001-01	Truck Wash	02/20/2008	0845	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8022001-01	**SAMPLE ID: Truck Wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664	OIL/GREASE, TOTAL	5.1	mg/L	2.0	so	02/27/2008 10:27	
PH	EPA 150.1/9040	pH	6.42	SU		DK	02/20/2008 15:39	
		TEMPERATURE (C)	21.5	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8B20015 - General Preparation										
QC SAMPLE: Duplicate (8B20015-DUP1)				Source: 8022001-01	Prepared & Analyzed: 02/20/08					
pH	6.47		SU		6.42			0.776	10	
TEMPERATURE (C)	21.8		"		21.5			1.39	200	
QC SAMPLE: Reference (8B20015-SRM1)					Prepared & Analyzed: 02/20/08					
pH	4.98		SU	5.00		99.6	97.5-102.			
QC SAMPLE: Reference (8B20015-SRM2)					Prepared & Analyzed: 02/20/08					
pH	8.01		SU	8.00		100	97.5-102.			
QC SAMPLE: Reference (8B20015-SRM3)					Prepared & Analyzed: 02/20/08					
pH	8.03		SU	8.00		100	97.5-102.			
BATCH: Batch 8B27003 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8B27003-BLK1)					Prepared & Analyzed: 02/27/08					
OIL/GREASE, TOTAL	2.3	2.0	mg/L							
QC SAMPLE: LCS (8B27003-BS1)					Prepared & Analyzed: 02/27/08					
OIL/GREASE, TOTAL	37.1	2.0	mg/L	42.9		86.5	79-114			
QC SAMPLE: LCS Dup (8B27003-BSD1)					Prepared & Analyzed: 02/27/08					
OIL/GREASE, TOTAL	34.8	2.0	mg/L	42.9		81.1	79-114	6.40	18	

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Authorized for Release By:
James Weinkauf - QA/QC Director

COLUMBIA INSPECTION, INC 7133 N. Lombard, Portland, OR 97203 Ph:(503) 286-9464 Fax:(503) 286-5355 E-mail:cilabqa@ColumbiaInspection.com

CERTIFICATE OF ANALYSIS

CLIENT: Ash Grove Cement Company - Swan Island
ATTN: J. John Hone
3737 N. Port Center Way
Portland OR, 97217

PHONE: (503) 285-4621
FAX: (503) 286-4987

PROJECT NAME: Truck Wash
SUBMITTED: 01/17/08 12:00

REPORT DATE: 01/29/08 13:24 | REPORT NUMBER: 8011701 | PAGE: 1 OF 2

CI SAMPLE	CLIENTS ID#	DATE	TIME	MATRIX
8011701-01	Truck Wash	01/17/2008	1105	Water

SAMPLE/ ANALYSIS	METHOD	PARAMETER	RESULTS	UNITS	DETECTION LIMIT	TECH	DATE/TIME	NOTES
8011701-01	**SAMPLE ID: Truck Wash**							
General Bench Analysis								
O & G, TOTAL (HEM)	EPA 1664	OIL/GREASE, TOTAL	ND	mg/L	2.0	so	01/21/2008 16:32	
PH	EPA 150.1/9040	pH	4.92	SU		DK	01/18/2008 10:00	
		TEMPERATURE (C)	17.4	SU				

General Bench Analysis - Quality Control

Batch/Sample/Analyte	Result	Detection Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
BATCH: Batch 8A17006 - General Preparation										
QC SAMPLE: Duplicate (8A17006-DUP1)				Source: 8011705-01	Prepared: 01/17/08 Analyzed: 01/18/08					
pH	8.41		SU		8.38			0.357	10	
TEMPERATURE (C)	17.6		"		17.6			0.00	200	
QC SAMPLE: Reference (8A17006-SRM1)					Prepared: 01/17/08 Analyzed: 01/18/08					
pH	4.97		SU	5.00		99.4	97.5-102.			
QC SAMPLE: Reference (8A17006-SRM2)					Prepared: 01/17/08 Analyzed: 01/18/08					
pH	8.00		SU	8.00		100	97.5-102.			
BATCH: Batch 8A21004 - * DEFAULT PREP *** **										
QC SAMPLE: Blank (8A21004-BLK1)					Prepared & Analyzed: 01/21/08					
OIL/GREASE, TOTAL	ND	2.0	mg/L							
QC SAMPLE: LCS (8A21004-BS1)					Prepared & Analyzed: 01/21/08					
OIL/GREASE, TOTAL	44.4	2.0	mg/L	42.9		103	79-114			
QC SAMPLE: LCS Dup (8A21004-BSD1)					Prepared & Analyzed: 01/21/08					
OIL/GREASE, TOTAL	42.9	2.0	mg/L	42.9		100	79-114	3.44	18	

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Authorized for Release By: James Weinkauf - QA/QC Director

Oregon
Theodore Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
FAX (503) 229-6957
TTY (503) 229-5471

February 11, 2009

John Hone
Ash Grove Cement Company
3737 N. Port Center Way
Portland, OR 97217-3565

Re: **Warning Letter with Opportunity to Correct**
Ash Grove Cement – Bulk Cement Terminal
WL–NWR–WQ–2009–0012
Water Quality File Number: 110230
Multnomah County

Dear Mr. Hone,

The Department of Environmental Quality (DEQ) has reviewed your 1700-B permit discharge monitoring report (DMR) for 2008. Your NPDES (National Pollutant Discharge Elimination System) General 1700-B Permit allows wash water discharges that meet the limitations and conditions contained in Schedules A – F of the permit. The DMR report received by DEQ indicates an exceedance of the pH limitation, resulting in a violation of Oregon Revised Statute (ORS) 468B.025(2).

Violation:

468B.025 Prohibited activities.
(2) No person shall violate the conditions of any waste discharge permit issued under ORS 468B.050.
(3) Violation of subsection (1) or (2) of this section is a public nuisance. [Formerly 449.079 and then 468.720; 1997 c.286 §5]

The January, 2008 exceedance of the 1700-B Permit Limitations for pH is shown in Table 1, and is a **Class II Violation.**

Table 1. 2008 Ash Grove Cement Company pH Limitation exceedance.

Date of waste discharge sample	Parameter (Limitation and units)	Measured Value	Units above Limitation
1-Jan-08	pH (6.0 – 9.0 pH unit)	**4.92**	By 1-2 pH units

Previous exceedances occurred in 2007 (shown in Table 2) resulting in a Warning Letter dated March 5, 2008.

Table 2. 2007 Ash Grove Cement Company pH Limitation exceedance.

Date of waste discharge sample	Parameter (Limitation and units)	Measured Value	Percent or units above Limitation
24-May-07	pH (6.0 – 9.0 pH unit)	**5.73**	By 1 pH unit or less
28-Jun-07	pH (6.0 – 9.0 pH unit)	**5.69**	By 1 pH unit or less

Class I violations are the most serious violations; Class III violations are the least serious. Releases of low pH (< 6.0) water to the aquatic environment have been shown to have both short and long-term toxic effects on fish and other aquatic biota.

Corrective Action(s) Requested:

1. Closely monitor the pH levels in your discharge in order to meet the General 1700-B Permit Limitations for pH, and notify DEQ immediately of any additional problems with meeting the limitation.

This notice is a Warning Letter. The Department (DEQ) does not intend to take formal enforcement action at this time. Should these violations remain uncorrected or should you repeat any of these violations, this matter may be referred to the Department's Office of Compliance and Enforcement for formal enforcement action, including assessment of civil penalties and/or a Department order. Civil penalties can be assessed for each day of violation.

If you feel the Department has issued this Warning Letter in error, you may provide information to the office at the address shown to clarify the facts surrounding the alleged violations. If the Department determines that the violation was cited in error, the Department will amend or withdraw this Warning Letter.

The Department endeavors to assist you in your compliance efforts. Should you have any questions about the content of this letter or if you desire any follow-up technical assistance please contact me at (503) 229-5053 or by e-mail at Rosetta.thomas@deq.state.or.us.

Sincerely,

Thomas N. Rosetta

Tom Rosetta
Water Quality Specialist/General Permitting
Northwest Region Office
2020 SW 4th Ave, Suite 400
Portland, OR 97201

Cc: File
Ec: Office of Compliance and Enforcement, DEQ Headquarters

AGC0012279

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

January 22, 2009

COPY

Ms. Debra Henry
U.S. Army Corps of Engineers
ATTN: CENWP-OP-GP
P.O. Box 2946
Portland, OR 97208-2946

Dear Ms. Henry:

The Department of Environmental Quality (DEQ) has reviewed the U.S. Army Corps of Engineers (USACE) Permit application 1997-00114 [Department of State Lands (DSL) permit # 38047-RP]. The applicant, Ash Grove Cement Co., proposes to conduct maintenance dredging of accumulated sediment in order to maintain adequate water depth for safe usage of the existing cement import terminal. The project is located within the Portland Harbor Superfund Site, at approximately river mile (RM) 10 of the Willamette River, near the City of Portland, in Multnomah County, in Oregon (Section 21, T1N/R1E).

Project Description: The applicant proposes to remove up to 7,854 cubic yards (cy) of sediments during a single dredging event using a closed lipped, clamshell dredge, from two triangular shaped areas covering approximately 5.66 acres, to achieve a depth of approximately -38 feet Columbia River Datum (CRD). Removed sediments and decant water would be loaded onto a sealed bin barge for transport to a landfill authorized to accept contaminated material.

The Willamette River is classified as water quality limited under the Clean Water Act; has a US Environmental Protection Agency (EPA) approved Total Maximum Daily Load (TMDLs) for the parameters of: Bacteria; Dioxin; Mercury; and Temperature; is on Section 303(d) List for the parameters of: Dissolved Oxygen, Iron, DDT, DDE (DDT metabolite), PCB, Arsenic, Aldrin, Dieldrin, Polynuclear Aromatic Hydrocarbons (PAHs), Fecal Coliform, Manganese, Pentachlorophenol, and Biological Criteria; and other parameters listed for potential concern include: Hexavalent Chromium, Lead, Copper, Nickel, Zinc, Parathion, Malathion, Fluoranthene, Chrysene, DDD, Benzo(A)pyrene, and Benzo(A)anthracene.

The above listed parameters impair the following beneficial uses in the Willamette River: Salmon and steelhead spawning; salmonid rearing; anadromous fish passage; resident fish and aquatic life; drinking water; fishing; and water contact recreation.

Based on information provided by the applicant, DEQ does not anticipate any long-term violations of State Water Quality Standards, including *Oregon Administrative Rule (OAR) 340-41-004, Antidegradation Policy for Surface Waters*, provided the applicant strictly adheres to the conditions which follow.

CONDITIONS

1. **Duration of Certificate:** This 401 Water Quality Certification (WQC) expires five years from the date of issuance of the USACE permit. A new 401 WQC must be applied for and obtained prior to any significant changes granted to the USACE permit.

2. **Sediment Evaluation:** Sediments proposed for this one time dredging event have been evaluated following the Interim Final Sediment Evaluation Framework (SEF) 2006, and reviewed by the Project Review Group (PRG) of the Regional Sediment Evaluation Team (RSET). Sediment sampling and analyses have determined the presence of elevated concentrations of multiple constituents in various Dredged Material Management Units (DMMUs). The PRG has determined these sediments to be suitable for dredging, but unsuitable for unconfined in-water disposal. No other sediments are authorized for dredging within the five year duration of this certification. These findings have resulted in the following requirements:

   a) All material and water removed from the project area must be contained in a sealed bin barge and disposed of at a landfill which is authorized to accept contaminated material.
   b) Decant water which does not evaporate during transport must be absorbed by an inert additive (such as shredded paper) such that complete disposal of the barge contents can occur at the landfill.

3. **In-water work windows:** Dredging and disposal shall occur only within the Oregon Department of Fish and Wildlife's (ODFW) preferred time window, described in: *Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources*, June 2008, or most current version. Exceptions to the timing window are permissible if reviewed and approved by ODFW and National Marine Fisheries Service (NMFS).

4. **Aquatic life movements:** No activity may substantially disrupt the movement of those species of aquatic life indigenous to the water body, including those species that normally migrate through the area. Unobstructed fish passage must be provided at all times during any authorized activity.

1. **Turbidity**: All dredging and disposal of sediments shall be conducted so as to minimize siltation and turbidity in the project area. Any activity that causes turbidity to exceed 10% above natural stream turbidities is prohibited except as specifically provided below.

   a) **Monitoring:** Turbidity shall be monitored during daylight hours when in-water work is occurring.

      Dredging: Monitoring points shall be: 1) *representative background* : an undisturbed area within the flowing channel approximately 100 feet upcurrent from the project area; and 2) *compliance point*: within the flowing channel approximately 100 feet downcurrent from the project area and within any visible plume. A turbidimeter is required taking measurements at approximately mid-depth below the surface of the water and above the channel bottom at the compliance and background distances. Monitoring intervals shall be every two hours during dredging.

   b) **Compliance:** Results from the compliance points should be compared to the

AGC0012281

background levels taken during each monitoring interval. Exceedances are allowed as follows:

MONITORING WITH A TURBIDIMETER		
ALLOWABLE EXCEEDANCE TURBIDITY LEVEL	ACTION REQUIRED AT 1ST MONITORING INTERVAL	ACTION REQUIRED AT 2ND MONITORING INTERVAL
No difference from background	Continue to monitor every 2 hours	Continue to monitor every 2 hours
Up to 29 NTU above background	Modify BMPs & continue to monitor every 2 hours	Stop work after 4 hours at 0-29 NTU above background
30 to 49 NTU above background	Modify BMPs & continue to monitor every 2 hours	Stop work after 2 hours at 30-49 NTU above background
50 NTU or more above background	Stop work	Stop work

If an exceedance over the background level occurs, the applicant must modify the activity and continue to monitor every four hours or as appropriate (above). If an exceedance over the background level continues after the second monitoring interval, the activity must stop until the turbidity levels return to background. If, however, turbidity levels return to background at second monitoring level due to implementation of BMPs or natural attenuation, work may continue with appropriate monitoring as above.

If an exceedance occurs at: 50 NTU or more over background; 30 NTU over background for 2 hours; or 5-29 NTU over back ground for 4 hours, the activity must stop immediately for the remainder of that 24-hour period.

c) **Reporting:** Copies of daily logs for turbidity monitoring must be available to DEQ, USACE, DSL, NMFS, USFWS, and ODFW upon request. The log must include: background NTUs, compliance point NTUs, comparison of the points in NTUs, and location, time, and date for each reading. Additionally, a narrative must be prepared discussing all exceedances with subsequent monitoring, actions taken, and the effectiveness of the actions.

d) **BMPs to Minimize In-stream Turbidity:**

i. Sequence/Phasing of work – The applicant will schedule work activities so as to minimize in-water disturbance and duration of in-water disturbances;
ii. Bucket control - All in-stream digging passes shall be completed so as to minimize turbidity. All practicable techniques such as employing an experienced equipment operator, not dumping partial or full buckets of material back into the wetted stream, adjusting the volume, speed, or both of the load, or by using a closed-lipped environmental bucket shall be implemented;
iii. Machinery will not drive into the flowing channel; and,
iv. Use of containment measures such as silt curtains, geotextile fabric, and silt fence must be implemented as practical and properly maintained in order to minimize in-stream sediment suspension and resulting turbidity.

6. **Spill Prevention:** Fuel, operate, maintain, and store vehicles and construction materials in areas which minimize disturbance to habitat and prevent adverse effects from potential fuel spill.

a) Complete vehicle staging, cleaning, fueling, maintenance, and fuel storage in a

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vehicle staging area placed 150 feet or more from any waters of the state. An exception to this distance can be made if all practicable prevention and containment measures [as in 5) b through e below, or others] are employed and this distance is not possible because of any of the following site conditions:

i. Physical constraints that make this distance not feasible (e.g., steep slopes, rock outcroppings);
ii. Natural resource features would be degraded as a result of this setback; or,
iii. Equal or greater spill containment and effect avoidance if staging area is less than 150 feet of any waters of the State;

b) If staging areas are within 150 feet of any waters of the State, full containment of potential contaminants shall be provided to prevent soil and water contamination, as appropriate;
c) Inspect all vehicles operated within 150 feet of any waters of the State daily for fluid leaks before leaving the vehicle staging area. Repair any leaks detected in the vehicle staging area before the vehicle resumes operation;
d) Before operations begin and as often as necessary during operation, steam clean (or an approved equal) all equipment that will be used below bankfull elevation until all visible external oil, grease, mud, and other visible contaminates are removed;
e) Diaper all stationary power equipment (e.g., generators, cranes, stationary drilling equipment) operated within 150 feet of any waters of the state to prevent leaks, unless other suitable containment is provided to prevent potential spills from entering any waters of the state; and,
f) An adequate supply of materials (such as straw matting/bales, geotextiles, booms, diapers, and other absorbent materials) needed contain spills must be maintained at the project construction site and deployed as necessary.

7. **Spill & Incident Reporting**:

a) In the event that petroleum products, chemicals, or any other deleterious materials are discharged into state waters, or onto land with a potential to enter state waters, the discharge shall be promptly reported to the Oregon Emergency Response Service (OERS, 1-800-452-0311). Containment and cleanup must begin immediately and be completed as soon as possible.
b) If the project operations causes a water quality problem which results in distressed or dying fish, the operator shall immediately: cease operations; take appropriate corrective measures to prevent further environmental damage; collect fish specimens and water samples; and notify DEQ, ODFW, NMFS and USFWS as appropriate.

8. A copy of this WQC letter shall be kept on the job site and readily available for reference by USACE, NMFS or DEQ personnel, the contractor, and other appropriate state and local government inspectors.

9. This WQC is invalid if the project is operated in a manner not consistent with the project description contained in the application materials and subsequent submissions. Failure to comply with the conditions of this certification may subject the applicant to civil penalties or other administrative or judicial actions.

10. DEQ requires site access upon request.

AGC0012283

If you are dissatisfied with the conditions contained in this certification, you may request a hearing before the Environmental Quality Commission. Such request must be made in writing to the Director of DEQ within 20 days of the mailing of this certification.

The DEQ hereby certifies that this project complies with the Clean Water Act and state water quality standards, if the above conditions are strictly adhered to.

The applicant shall notify the DEQ of any change in the ownership, scope, or construction methods of the project subsequent to certification. If you have any questions, please contact Alexandra Cyril at 503.229.6030.

Sincerely,

Sally Puent
Water Quality Manager
Northwest Region

T:AC.certhenr.97-114

cc: applicant
Mike McCabe, DSL

AGC0012284

DEPARTMENT OF THE ARMY
PORTLAND DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

REPLY TO
ATTENTION OF:

February 25, 2009

Operations Division
Regulatory Branch
Corps No.: NWP-1997-114

Mr. Glenn Dollar
Ash Grove Cement Company
13939 N Rivergate Blvd
Portland, Oregon 97203

Dear Mr. Dollar:

Enclosed is your fully executed Department of the Army Permit.

Please carefully read the permit and its conditions. In addition, if you have a contractor and/or agent, please review these conditions with them to ensure that the work is performed in accordance with the permit terms.

Also be aware that other authorizations from Federal, state, or local governments may be required by law. If the work is not completed prior to the permit expiration date, you may apply for a time extension. We recommend you apply for a time extension at least 90 days before the expiration date of the permit.

If you have any questions, please contact Ms. Debra Henry at the letterhead address, by telephone at (503) 808-4391 or by email at debra.j.henry@usace.army.mil.

Sincerely,

FOR Lawrence C. Evans
Chief, Regulatory Branch

Enclosures

DEPARTMENT OF THE ARMY PERMIT

Permittee: Ash Grove Cement Company

Permit No: NWP-1997-114

Issuing Office: U.S. Army Corps of Engineers, Portland District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description: The project involves removing approximately 7,854 cubic yards of sand, silt, and clay in front of the Ash Grove Cement Company docks. Material will be removed using a clamshell dredge with a closed-lid bucket. Material will be placed on a barge and disposed of at Wasco County landfill site. Decant water will not be discharged back into the river. Current depths range within the area to be dredged from -30 feet Columbia River Datum (CRD) to -40 feet CRD. A depth of -38 feet CRD is required to maintain a suitable depth for ship use. The dredge area is approximately 5.66 acres.

Purpose: To maintain adequate depth at the existing dock for ship use.

Project Location: The project is located on the east bank of the Willamette River, River Mile 10, at 3737 N. Port Center Way, in Section 21, Township 1 North, Range 1 East, in Portland, Multnomah County, Oregon.

Drawings: Five (5) drawings labeled COE NWP-1997-114.

General Conditions:

1. The time limit for completing the work authorized ends on February 4, 2013. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

AGC0012286

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

Special Conditions:

1. The following special condition is a part of all Department of the Army permits that provide authorization under Section 10 of the Rivers and Harbors Act, regardless whether the permit provides such authorization under Section 10 alone, or in combination with authorization under other laws:

   a) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the U.S Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. *Northwest Regional Sediment Evaluation Framework* data regency requirements:
   a. After February 2011, you shall re-sample and characterize dredge prism and leave surface sediments at the Ash Grove Cement site prior to dredging.
   b. You shall conduct all sediment sampling and characterization per methods found in the most recent version of the *Northwest Regional Sediment Evaluation Framework (SEF)*.
   c. To ensure adequate review time, you shall submit sampling and analysis plan(s) a minimum of 120 days in advance of dredging.
   d. To ensure adequate review time, you shall submit sediment characterization report(s) a minimum of 60 days in advance of dredging
   e. You may not commence dredging operations without Corps approval.

3. You shall notify the Regulatory Branch with the start date when the activities authorized in waters of the U.S. are scheduled to begin. Notification shall be sent by email to cenwp.notify@usace.army.mil or mailed to the following address:

   U.S. Army Corps of Engineers
   CENWP-OD-GC
   Permit Compliance, Multnomah County
   P.O. Box 2946
   Portland, Oregon 97208-2946

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The subject line of the message shall contain the name of the county in which the project is located followed by the Corps of Engineers permit number.

4. You shall submit a signed certification regarding the completed work. A "Compliance Certification" is provided.

5. Permittee shall load sediments and decant water onto a sealed bin barge for transport to a landfill authorized to accept contaminated material.

6. The National Marine Fisheries Service (NMFS) issued a biological opinion (BO) for your project. All terms and conditions of the BO are terms and conditions of this authorization. You shall fully implement all terms and conditions from the enclosed NMFS BO dated March 31, 2008.

7. The National Marine Fisheries Service (NMFS) issued a biological opinion (BO) for your project. All terms and conditions of the BO are terms and conditions of this authorization. You shall fully implement all terms and conditions from the enclosed March 31, 2008 NMFS BO.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

   (X) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).
   ( ) Section 404 of the Clean Water Act (33 U.S.C. 1344).
   ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

   a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

   b. This permit does not grant any property rights or exclusive privileges.

   c. This permit does not authorize any injury to the property or rights of others.

   d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

   a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

   b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

AGC0012288

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

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Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

Glenn F. Dellar 02/10/2009

(PERMITTEE SIGNATURE) (DATE)

Glenn F. Dellar EHS Manager

(PRINTED NAME) (TITLE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

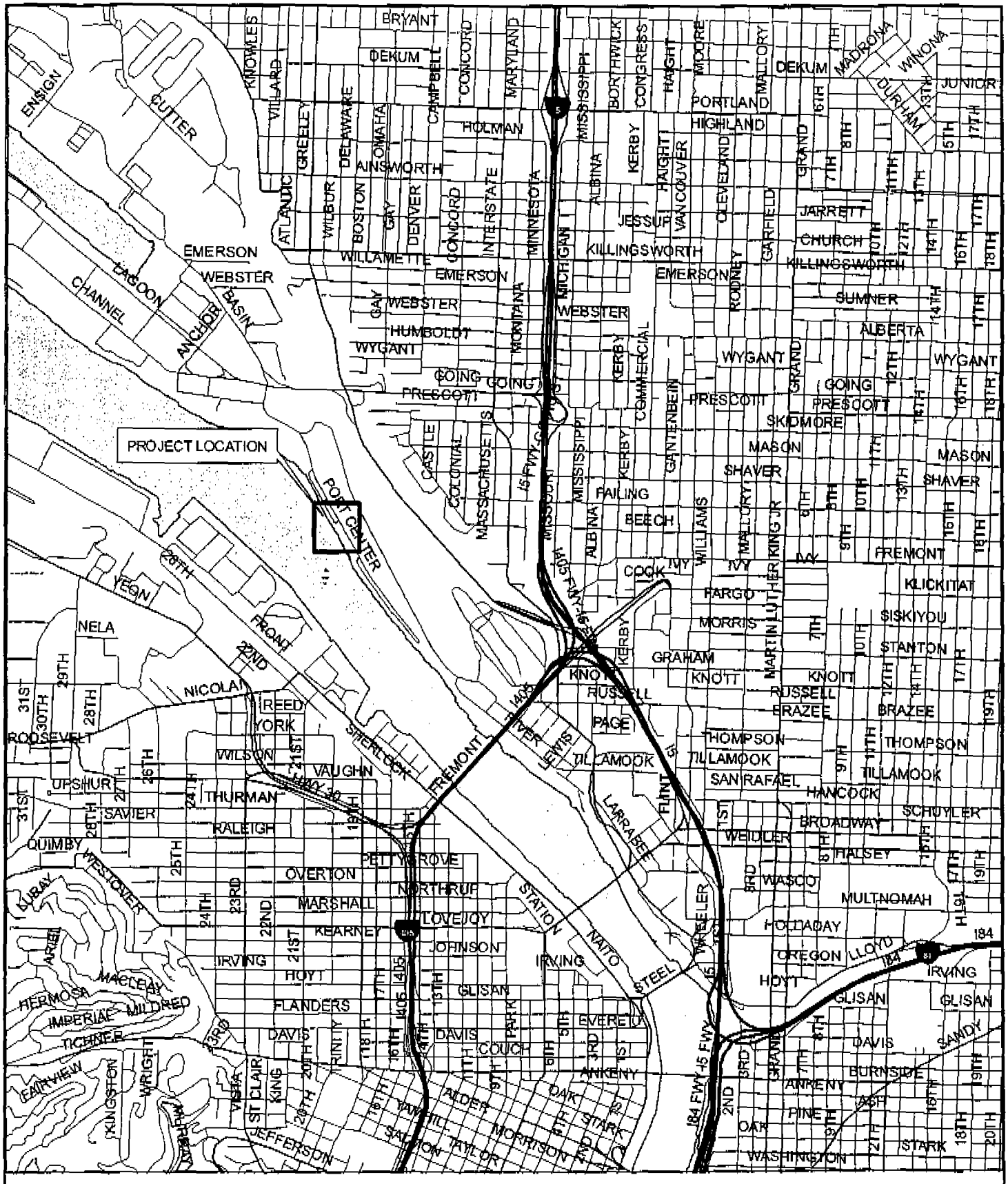
for 2/25/09

Steven R. Miles, P.E. (DATE)
Colonel, Corps of Engineers
District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

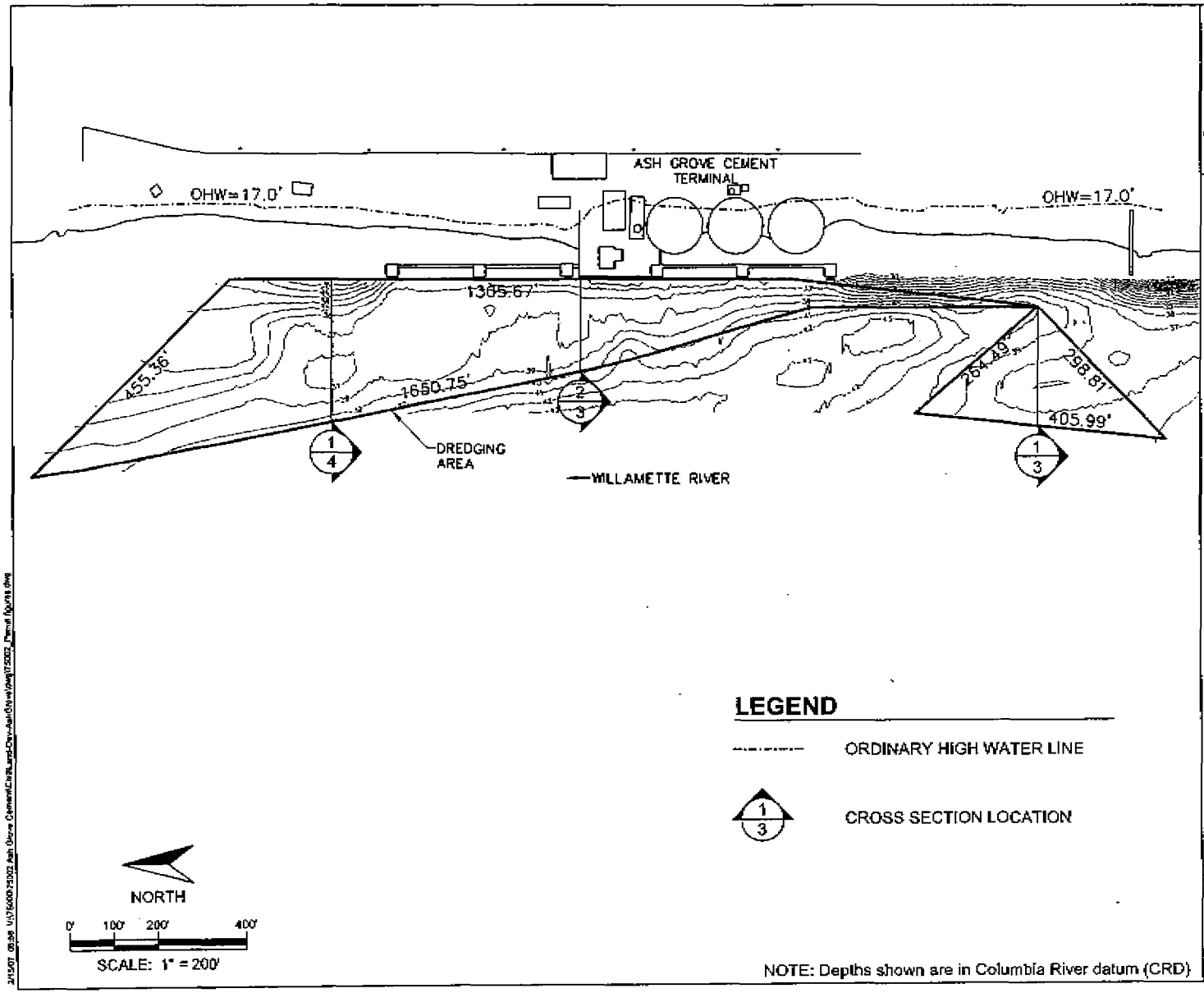
(TRANSFEREE) (DATE)

AGC0012290



PBS	Project # 75002.000 Date: FEBRUARY 2007	VICINITY MAP Ash Grove Cement Company 3737 N Port Center Way PORTLAND, OREGON
		FIGURE 1

AGC0012291



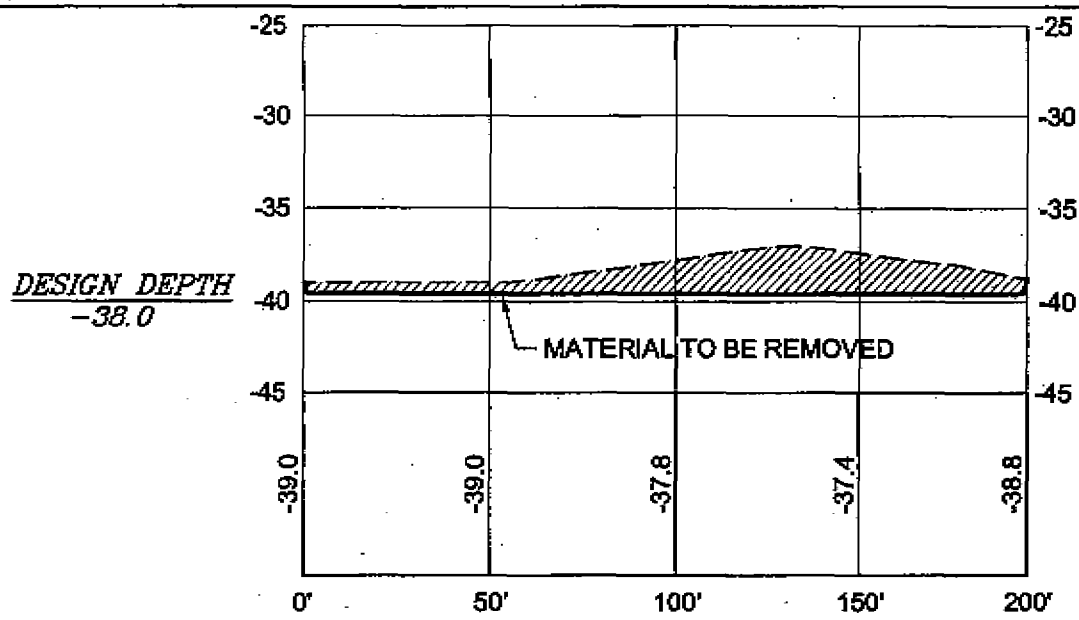
PBS
1310 MAIN STREET
VANCOUVER, WA 98660
OFFICE 360.695.1385
FAX 360.696.9064

SITE PLAN
Ash Grove Cement Company
13939 North Rivergate Blvd.
Portland, Oregon

PROJECT: 15982.000
DATE: FEBRUARY 2007

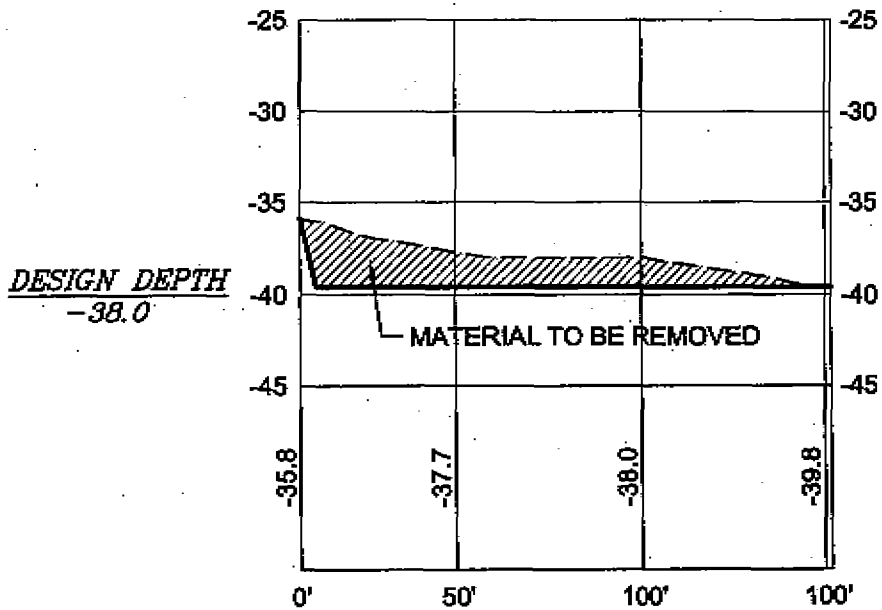
2

AGC0012292



1/3 **DREDGE SECTION**

SCALE: 1" = 50' horizontal, 1" = 10' vertical



2/3 **DREDGE SECTION**

SCALE: 1" = 50' horizontal, 1" = 10' vertical

NOTE: Depths shown are in Columbia River datum (CRD)

PBS
1310 MAIN STREET
VANCOUVER, WA 98660
OFFICE 360.690.4331
FAX 360.696.9064

CROSS-SECTION
Ash Grove Cement Company
13939 North Rivergate Blvd.
Portland, Oregon

PROJECT: 75002.00
DATE: AUGUST 2008

3

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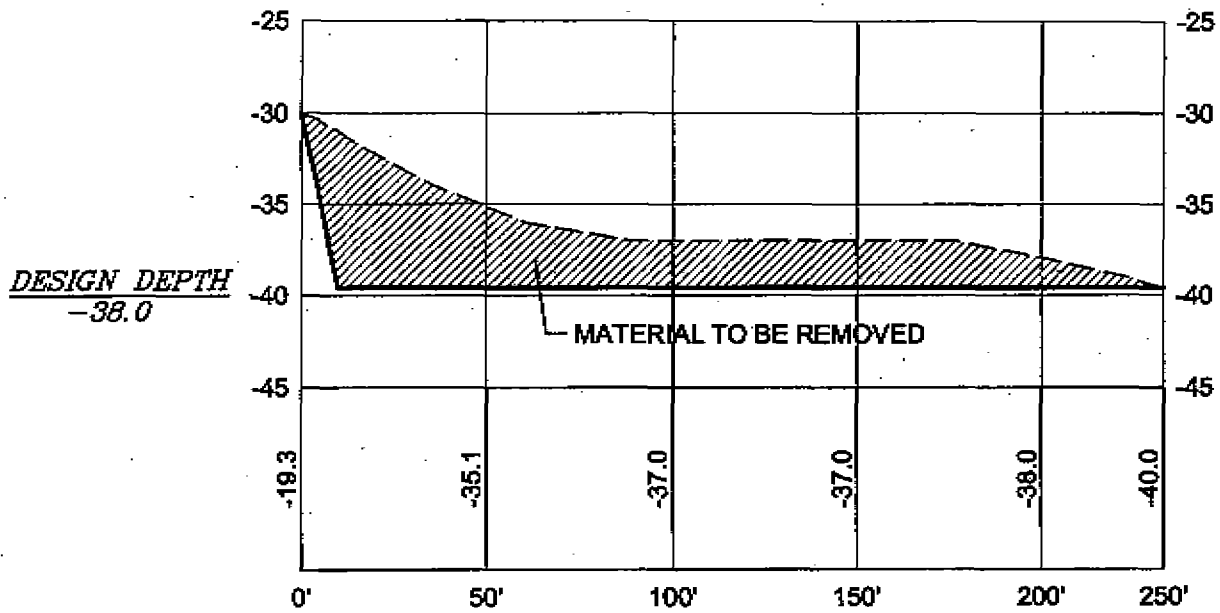

1/4 **DREDGE SECTION**

SCALE: 1" = 50' horizontal, 1" = 10' vertical

NOTE: Depths shown are in Columbia River datum (CRD)

PBS
1310 MAIN STREET
VANCOUVER, WA 98660
OFFICE 360.696.4331
FAX 360.696.9064

CROSS-SECTION
Ash Grove Cement Company
13939 North Rivergate Blvd.
Portland, Oregon

PROJECT: 75002.000
DATE: AUGUST 2006

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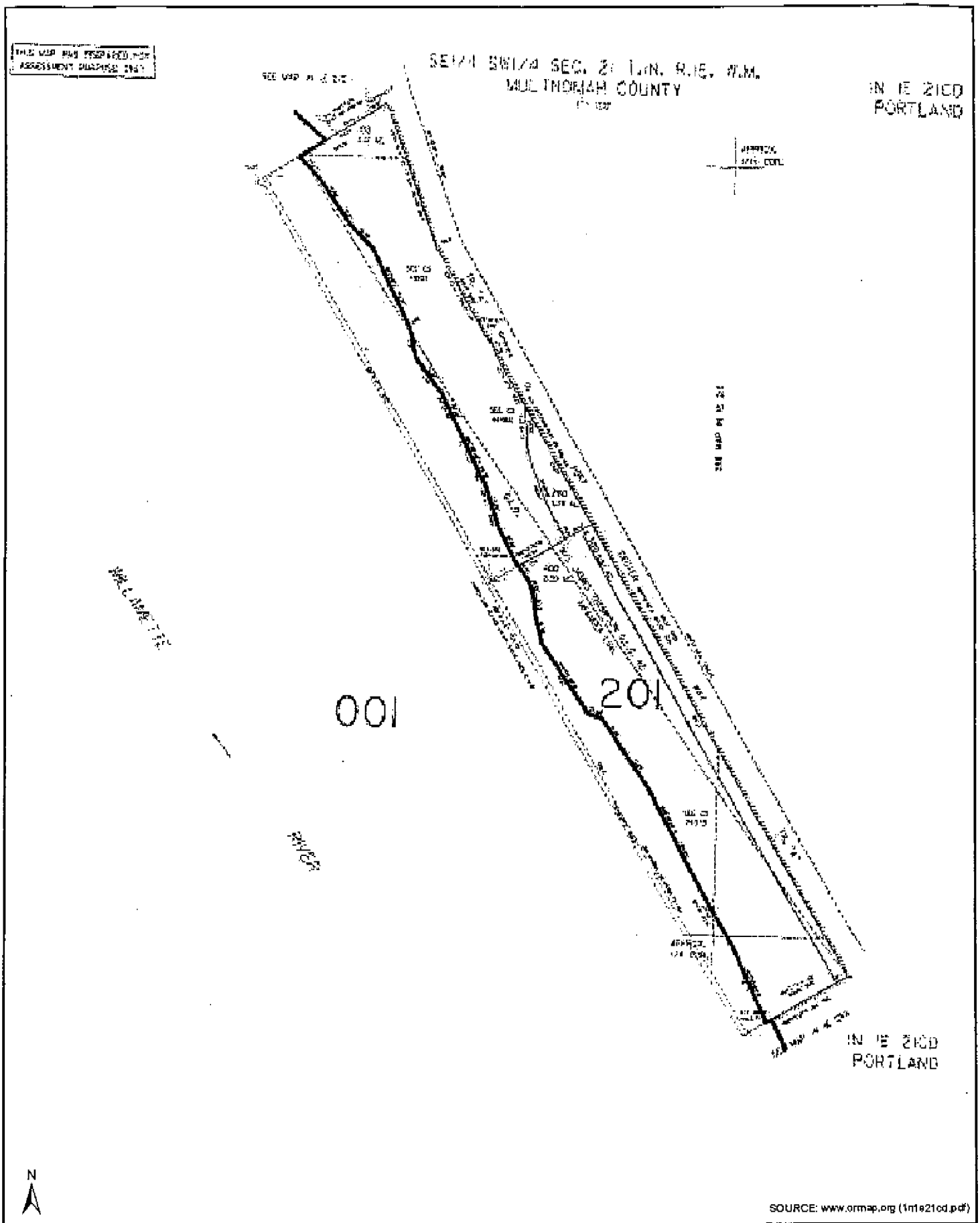

SOURCE: www.ormap.org (1n1e21cd.pdf)

PBS	Project #: 75002.000 Date: FEBRUARY 2007	TAX LOT MAP Ash Grove Cement Company 3737 N Port Center Way PORTLAND, OREGON	FIGURE 5

AGC0012295

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to NMFS No.:
2007/05812

March 31, 2008

Mr. Larry Evans
Chief, Regulatory Branch
Portland District, Corps of Engineers
CENWP-OP-GP (Kathryn Harris)
P.O. Box 2946
Portland, Oregon 97208-2946

Re: Endangered Species Act Section 7 Formal Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Ash Grove Cement Company's Maintenance Dredging, Willamette River (HUC 17090012), Multnomah County, Oregon (Corps No. NWP-1997-114).

Dear Mr. Evans:

The enclosed document contains a biological opinion (Opinion) prepared by the National Marine Fisheries Service (NMFS) pursuant to section 7(a)(2) of the Endangered Species Act (ESA) on the proposed issuance of a permit under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899 to the Ash Grove Cement Company for maintenance dredging at river mile 10 along the Willamette River, in Multnomah County, Oregon. In this Opinion, NMFS concludes that the proposed action is not likely to jeopardize the continued existence of six species of ESA-listed salmonid fishes: Upper Willamette River (UWR) spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Lower Columbia River (LCR) Chinook salmon, LCR steelhead (*O. mykiss*), UWR steelhead, Columbia River (CR) chum salmon (*O. keta*), or LCR coho salmon (*O. kisutch*). Further, NMFS concludes that the proposed action will not result in the destruction or adverse modification of critical habitats designated for five of these species. At this time, critical habitat has not been proposed or designated for LCR coho salmon.

As required by section 7 of the ESA, an incidental take statement prepared by NMFS is provided with the Opinion. The incidental take statement describes reasonable and prudent measures NMFS considers necessary or appropriate to minimize incidental take associated with the proposed action. It also sets forth nondiscretionary terms and conditions, including reporting requirements, that the Federal agency and applicant, if any, must comply with to carry out the reasonable and prudent measures. Incidental take from actions by the action agency and applicant that meet these terms and conditions will be exempt from the ESA take prohibition.

AGC0012296

This document also includes the results of our analysis of the action's likely effects on essential fish habitat (EFH) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and includes two conservation recommendations to avoid, minimize, or otherwise offset potential adverse effects on EFH. This conservation recommendation is an identical subset of the ESA terms and conditions. Section 305(b) (4) (B) of the MSA requires Federal agencies to provide a detailed written response to NMFS within 30 days after receiving these recommendations.

If the response is inconsistent with the EFH conservation recommendation, the U.S. Army Corps of Engineers must explain why the recommendation will not be followed, including the scientific justification for any disagreements over the effects of the action and the recommendation.

If you have questions regarding this consultation, please contact Dr. Nancy Munn in the Willamette Basin Habitat Branch of the Oregon State Habitat Office, at 503-231-6269.

Sincerely,

for

D. Robert Lohn
Regional Administrator

cc: Greg Smith, USFWS
Alex Cyril, ODEQ
Todd Alsbury, ODFW

AGC0012297

Endangered Species Act-Section 7 Consultation Biological Opinion

&

Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation

Ash Grove Cement Company's Maintenance Dredging
Willamette River (HUC 17090012)
Multnomah County, Oregon
(Corps No. NWP-1997-114)

Lead Action Agency:	U.S. Army Corps of Engineers
Consultation Conducted By:	National Marine Fisheries Service Northwest Region
Date Issued:	March 31, 2008
Issued by:	for D. Robert Lohn Regional Administrator
NMFS No.:	**2007/05812**

AGC0012298

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AGC0012299

INTRODUCTION

The biological opinion (Opinion) and incidental take statement portions of this consultation were prepared by the National Marine Fisheries Service (NMFS) in accordance with section 7(b) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531, *et seq.*), and implementing regulations at 50 CFR 402. With respect to critical habitat, the following analysis relied only on the statutory provisions of the ESA, and not on the regulatory definition of "destruction or adverse modification" at 50 CFR 402.02.

The essential fish habitat (EFH) consultation was prepared in accordance with Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (16 U.S.C. 1801, *et seq.*) and implementing regulations at 50 CFR 600. The docket for this consultation is on file at the Oregon State Habitat Office in Portland, Oregon.

Background and Consultation History

The NMFS received a letter and a biological assessment (BA) on August 30, 2007, from the U.S. Army Corps of Engineers (Corps) requesting formal consultation under the ESA and MSA on the proposed issuance of a permit under section 10 of the Rivers and Harbors Act of 1899 and section 404 of the Clean Water Act to Ash Grove Cement Company (Ash Grove) to perform maintenance dredging activities at river mile (RM) 10 along the Willamette River (HUC 17090012) in the City of Portland, Oregon (Figure 1). Further clarification was received on February 8, 2008. The proposed action area is on the east side of the Willamette River in an area zoned 'heavy industrial.'

The Corps concluded that the proposed action was "likely to adversely affect" Upper Willamette River (UWR) spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Lower Columbia River (LCR) Chinook salmon, LCR steelhead (*O. mykiss*), UWR steelhead, Columbia River (CR) chum salmon (*O. keta*), and LCR coho salmon (*O. kisutch*), (hereafter collectively referred to as "listed salmonids"). The Opinion also addresses effects to critical habitat designated for five of the six species listed above; critical habitat has not been proposed or designated for LCR coho salmon.

References for listing status and dates, ESA section 4(d) take prohibitions, and critical habitat designations are provided in Table 1. This Opinion is based on the information presented in the BA and subsequent information submitted by Ash Grove.

Proposed Action

The proposed action includes permitting of all methods and actions described in the following paragraphs.

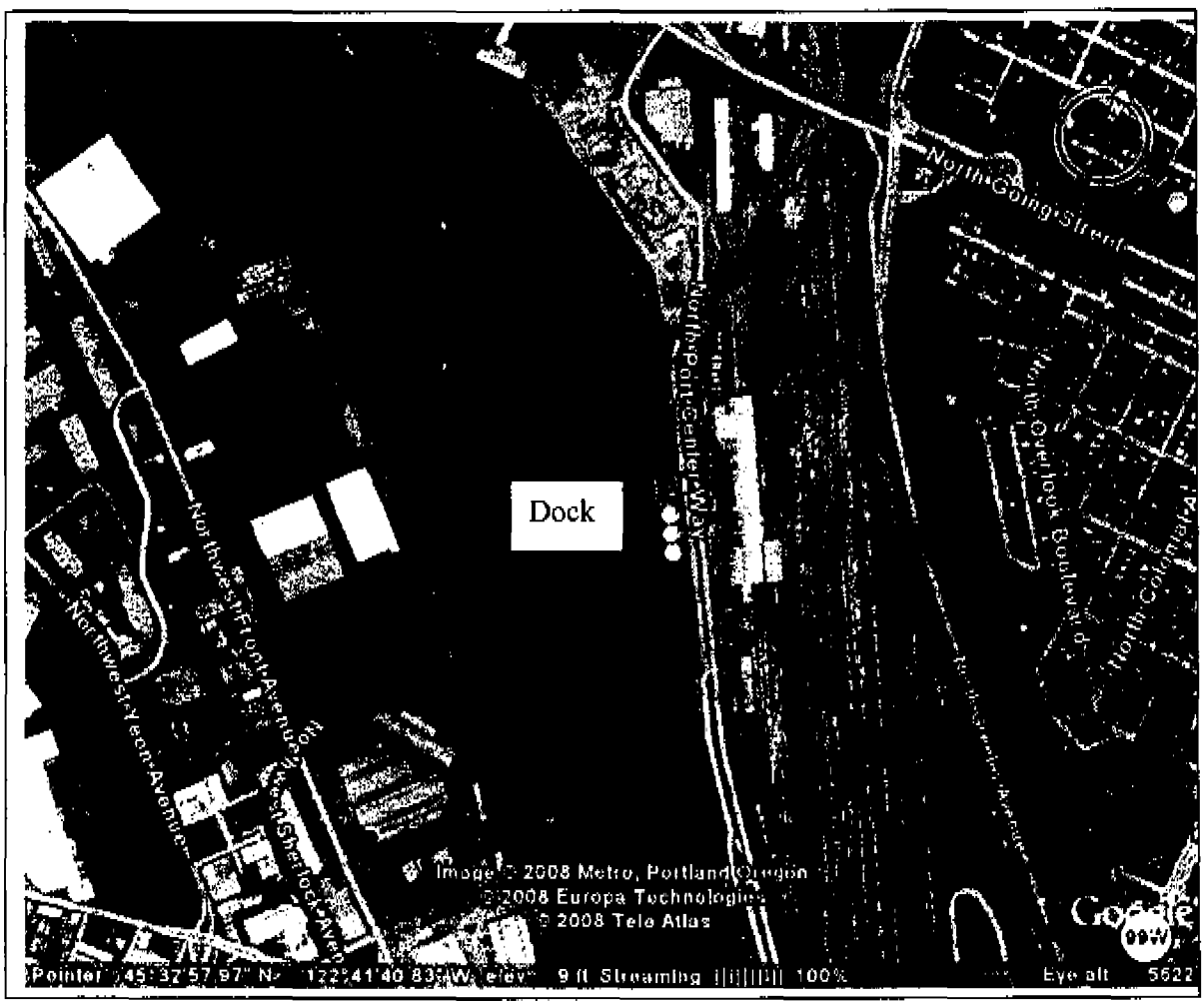
Ash Grove, a cement import terminal, proposes to conduct a maintenance dredging operation at their dock at RM 10 along the east bank of the lower Willamette River, adjacent to the Albina Railroad yard. They propose to remove approximately 7,854 cubic yards (cy) of material with a clamshell dredge with a closed-lip bucket. The dredged material will be transferred to a haul

AGC0012300

barge, dewatered, and then trucked to an approved upland disposal site. Return water from the barge will be discharged to the Willamette River. Ash Grove proposes to dredge during the summer in-water work window (July 1 through October 31). No additional dredging is expected within the next 5 years.

Ash Grove proposes a design depth of -38 feet Columbia River Datum (CRD), requiring an average of approximately 3.5 feet to be removed across the dredging area. The removal area is approximately 246,702 square feet (5.66) acres.

Figure 1. Ash Grove Cement Company's dock is along the Willamette River at RM 10.



AGC0012301

Table 1. Federal Register notices for final rules that list threatened and endangered species, designate critical habitats, or apply protective regulations to listed species considered in this consultation. (Listing status: 'T' means listed as threatened under the ESA; 'E' means listed as endangered.)

Species	Listing Status	Critical Habitat	Protective Regulations
Chinook salmon (*Oncorhynchus tshawytscha*)			
Lower Columbia River	T 6/28/05; 70 FR 37160	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160
Upper Willamette River	T 6/28/05; 70 FR 37160	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160
Chum salmon (*O. keta*)			
Columbia River	T 6/28/05; 70 FR 37160	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160
Coho salmon (*O. kisutch*)			
Lower Columbia River	T 6/28/05; 70 FR 37160	Not applicable	6/28/05; 70 FR 37160
Steelhead (*O. mykiss*)			
Lower Columbia River	T 1/05/06; 71 FR 834	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160
Upper Willamette River	T 1/05/06; 71 FR 834	9/02/05; 70 FR 52630	6/28/05; 70 FR 37160

Dredging History. The site was last dredged in 1999. Sediment has accumulated at the site, and current depths range from -30 feet CRD to -40 feet CRD.

Sediment Quality. Ash Grove completed a Sediment Characterization Report (August 15, 2007) based on samples collected on June 21, 2007, according to the Interim Final Northwest Sediment Evaluation Framework, September 2006 (https://www.nwp.usace.army.mil/ec/dme.asp) protocol. The Sediment Characterization Report was reviewed by the agencies and the sediment was deemed not suitable for in-water disposal because of exceedances of the Oregon Department of Environmental Quality (DEQ) criteria for copper, nickel, and polynuclear aromatic hydrocarbons (PAHs). Specifically, DEQ reviewed the sediment chemistry data against threshold effects and probable effects (TEL/PEL) screening levels.

Impact Reduction Measures. Ash Grove proposes to incorporate the following best management practices to reduce the effects of their proposed action:

1. All work will occur during the summer inwater work window of July 1 through October 31.
2. Dredging will be performed with a closed-lip clamshell dredge.
3. The clamshell dredge will take one bite at a time to reduce the potential for releasing sediment into the water column.
4. No bottom stockpiling of the material will occur.

The measures described here as part of the proposed action are intended to reduce adverse effects on ESA-listed species and their habitats. The NMFS regards those measures as integral components of the proposed action and expects that all proposed project activities will be completed consistent with those measures. We have completed our effects analysis accordingly. Any project activity that deviates from those impact reduction measures, except as specified in the attached incidental statement, may be beyond the scope of this consultation, and may not be exempted from the prohibition against take of listed species as described in the attached

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incidental take statement, and further consultation may be required to determine what effect the modified action may have on ESA-listed species or critical habitats.

Action Area

'Action area' means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02). Ash Grove's facility is at RM 10 in the Willamette River, and the disposal site(s) is an unidentified upland site. For this consultation, the action area is the Willamette River, extending 0.5 mile upstream of the upstream dredge prism (RM 10.5) and downstream to the confluence with the Columbia River. These numbers are based on the possible extent of turbidity and contaminant dispersal during a complete tidal cycle during active operations. The action area does not include the sediment transfer location (for upland disposal) in the analysis because this site is not known.

The ESA-listed salmonids described in Table 1 use the action area for adult migration, and juvenile rearing and migration. The action area is designated EFH for Chinook salmon and coho salmon (PFMC 1999), and is an area where environmental effects of the proposed action may adversely affect EFH of those species.

ENDANGERED SPECIES ACT

The ESA establishes a national program to conserve threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a) (2) of the ESA requires Federal agencies to consult with U.S. Fish and Wildlife Service, NMFS, or both, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their designated critical habitats. Section 7(b) (4) requires the provision of an incidental take statement that specifies the impact of any incidental taking and includes reasonable and prudent measures to minimize such impacts.

Biological Opinion

This Opinion presents NMFS' review of the status of each ESA-listed species of Pacific salmon and steelhead[1] considered in this consultation, the condition of designated critical habitat, the environmental baseline for the action area, all the effects of the action as proposed, and cumulative effects (50 CFR 402.14(g)). For the jeopardy analysis, NMFS analyzes those combined factors to conclude whether the proposed action is likely to appreciably reduce the likelihood of both the survival and recovery of the affected listed species.

The critical habitat analysis determines whether the proposed action will destroy or adversely modify designated critical habitat for listed species by examining any change in the conservation value of the essential features of that critical habitat. The regulatory definition of "destruction or adverse modification" at 50 CFR 402.02 is not used in this Opinion. Instead, this analysis relies

[1] An 'evolutionarily significant unit' (ESU) of Pacific salmon (Waples 1991) and a 'distinct population segment' (DPS) of steelhead (71 FR 834; January 5, 2006) are considered to be 'species,' as defined in section 3 of the ESA.

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on statutory provisions of the ESA, including those in section 3 that define "critical habitat" and "conservation," in section 4 that describe the designation process, and in section 7 that sets forth the substantive protections and procedural aspects of consultation; and on agency guidance for application of the "destruction or adverse modification" standard.[2]

If the action under consultation is likely to jeopardize the continued existence of an ESA-listed species, or destroy or adversely modify critical habitat, NMFS must identify any reasonable and prudent alternatives for the action that avoid jeopardy or destruction or adverse modification of critical habitat and meet other regulatory requirements (50 CFR 402.02).

Status of the Species and Critical Habitat

This section defines the biological requirements of each listed species affected by the proposed action, and the status of each designated critical habitat relative to those requirements. Any ESA-listed species facing a high risk of extinction and critical habitats with degraded conservation value are more vulnerable to the aggregation of effects considered under the environmental baseline, the effects of the proposed action, and cumulative effects.

Status of the Species. The NMFS reviews the condition of the listed species affected by the proposed action using criteria that describe a 'viable salmonid population' (VSP) (McElhany *et al.* 2000). Attributes associated with a VSP include abundance; productivity, spatial structure, and genetic diversity that maintain its capacity to adapt to various environmental conditions and allow it sustain itself in the natural environment. These attributes are influenced by survival, behavior, and experiences throughout the entire life cycle, characteristics that are influenced, in turn, by habitat and other environmental conditions.

LCR Chinook salmon. The range of this species includes all naturally-spawned populations of Chinook salmon from the Columbia River and its tributaries from its mouth at the Pacific Ocean upstream to a transitional point between Washington and Oregon, east of the Hood River and the White Salmon River, and includes the Willamette River to Willamette Falls, Oregon, exclusive of spring-run Chinook salmon in the Clackamas River. Historical records of Chinook salmon abundance are sparse, but cannery records suggest a peak run of 4.6 million fish in 1883. Although fall-run Chinook salmon are still present throughout much of their historical range, they are still subject to large-scale hatchery production, relatively high harvest, and extensive habitat degradation. The spring-run populations are largely extirpated as the result of dams which block access to their higher elevation habitat. Abundances largely declined during 1998-2000 and trend indicators for most populations are negative, especially if hatchery fish are assumed to have a reproductive success equivalent to that of natural-origin fish. However, 2001 and 2002 abundance estimates increased for most LCR Chinook salmon populations over the previous few years (*as cited in* Good *et al.* 2005). In 2003, 2,873 fall-run Chinook salmon spawned in the main channel of the Columbia River between RM 113 and RM 143.

[2] Memorandum from William T. Hogarth to Regional Administrators, Office of Protected Resources, NMFS (Application of the "Destruction or Adverse Modification" Standard Under section 7(a)(2) of the Endangered Species Act) (November 7, 2005).

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Factors limiting recovery for LCR Chinook salmon are reduced access to spawning/rearing habitat in tributaries, hatchery impacts, loss of habitat diversity and channel stability in tributaries, excessive sediment in spawning gravel, elevated water temperature in tributaries, and harvest impacts on fall Chinook (NMFS 2005, NMFS 2006). NMFS (2007) identified degraded estuarine and nearshore habitat; floodplain connectivity, and function; channel structure and complexity; riarpian areas and large wood; stream substrate, streamflow; fish passage; and harvest and hatchery impacts as the major factors limiting the recovery of this species.

The predominant life history type for this species is the fall-run, which consists of an early component that returns to the Columbia River in mid-August and spawns within a few weeks (Kostow 1995). Spring-run Chinook salmon enter freshwater in March and April and spawn in late summer. Adults from this species pass through the action area from February through November, with peak passage occurring from mid-March through May, and from October through early November (Friesen 2005). The majority of juveniles in this species leave as subyearlings, with downstream movement observed as early as December, with most moving during summer and fall.

Fall-run Chinook salmon were native to the lower Willamette River and its, principle tributary, the Clackamas River, and likely other tributaries below Willamette Falls. Most of the LCR Chinook salmon in the action area are part of the Clackamas fall run population. Based on a recent viability status report (McElhany *et al.* 2007), there are no reliable abundance data for this population, but estimates put the population in the "extirpated or nearly so" persistence category based on the minimum abundance threshold. There is no abundance or productivity evidence supporting the existence of a viable natural origin population in the Clackamas. This population is at significant risk based on the criteria for diversity, spatial structure, and abundance and productivity, and from the perspective of all viability criteria, LCR Chinook in Oregon are at high risk (McElhany *et al.* 2007). Habitat degradation in the basin has reduced the spatial distribution of suitable habitats for fall Chinook. Further habitat changes in the Willamette and Columbia mainstem and estuary would likely have a significant effect on fall Chinook salmon (McElhany *et al.* 2007).

UWR spring-run Chinook salmon. The UWR spring-run Chinook salmon includes seven populations of native spring-run populations above Willamette Falls and in the Clackamas River. All the populations are in a single stratum since they share a similar life history pattern (spring run) and a single ecozone (McElhany *et al.* 2003, Myers *et al.* 2006).

Numbers of spring Chinook salmon in the Willamette River basin are extremely depressed (McElhany *et al.* 2007). Historically, the spring run of Chinook may have exceeded 300,000 fish (Myers *et al.* 2003). The current abundance of wild fish is less than 10,000 fish, and only two populations (McKenzie and Clackamas) have significant natural production. The UWR Chinook have been adversely impacted by the degradation and loss of spawning and rearing habitat (loss of 30 to 40%) associated with hydropower development, and interaction with a large number of natural spawning hatchery fish. Other limiting factors include altered water quality and temperature, lost and degraded floodplain connectivity and lowland stream habitat, and altered streamflow in the tributaries (NMFS 2005, NMFS 2006). NMFS (2007) identified degraded flooplain connectivity and function; channel structure and complexity; riparian areas and large

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wood recruitment; water quality; fish passage; and hatchery impacts as the major factors limiting recovery of this species.

McElhany *et al.* (2007) analyzed the population criteria (diversity, spatial structure, and abundance and productivity) for UWR Chinook salmon and found that the risk of extinction is high. The Clackamas population exhibited the lowest extinction risk. However, five of the seven populations were clearly in the high risk category, and thus the ESU can be characterized as having a high risk of extinction.

Chinook salmon generally spawn and rear in mainstem reaches of large river systems such as the Willamette River and the Clackamas River. Juvenile Chinook salmon that have emerged from spawning sites in the upper Willamette River watershed use the lower mainstem Willamette River and Columbia Slough through Portland for temporary rearing as they migrate to the ocean.

CR chum salmon. The Oregon portion of the CR chum ESU historically contained 8 populations (McElhany *et al.* 2007), with over a million chum returning in some years to the Columbia River (McElhany 2005). Recently only a few hundred to a few thousand chum have returned each year to the Columbia, mainly to the Washington side of the Columbia River. All of the historical Oregon side populations are considered extirpated or nearly so. All of the Oregon chum populations are in the very high risk category, and the ESU is also at very high risk of extinction (McElhany *et al.* 2007).

The factors limiting recovery for CR chum salmon are altered channel form and stability in tributaries, excessive sediment in tributary spawning gravels, altered stream flow in tributaries and the mainstem Columbia River, loss of some tributary habitat types, and harassment of spawners in the tributaries and mainstem (NMFS 2005, NMFS 2006). NMFS (2007) identified degraded estuarine and nearshore marine areas; floodplain connectivity and function; channel structure and complexity; riparian areas and large wood recruitment; stream substrate; streamflow; and fish passage as the major factors limiting recovery of this species.

LCR coho salmon. This ESU includes 25 populations that historically existed in the Columbia River basin from the Hood River downstream (McElhany *et al.* 2007). The boundaries do not extend into the upper Willamette portion of the basin because Willamette Falls is a natural barrier to fall migrating salmonids. In general, wild coho in the Columbia River basin have been in decline for the last 75 years. The number of wild coho returning historically was at least 600,000 fish (Chapman 1986). As recently as 1996, the total return of wild fish may have been as few as 400 fish (Chilcote 1999). Of the 25 historical populations, only the Clackamas and Sandy rivers show direct evidence that coho production is not reproductively dependent on the spawning of stray hatchery fish (McElhany *et al.* 2007). However, in the last 5 years there has been an increase in the abundance of wild coho in Clackamas and Sandy, plus a reappearance of moderate numbers of wild coho in the Scappoose and Clatskanie basins after a 10-year period in the 1990s when they were largely absent (McElhany *et al.* 2007).

NMFS (2007) identified floodplain connectivity and function; degraded channel structure and complexity; degraded riparian areas and large wood recruitment; degraded stream substrate;

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degraded streamflows; degraded water quality; and harvest and hatchery impacts as the major factors limiting recovery of LCR coho salmon.

The Clackamas population would be the most likely population found in the action area. Based on a recent analysis, this population is most likely in the low risk category for abundance and productivity, although all the other populations are in the high or very high risk category (McElhany *et al.* 2007). Spatial structure scores are reduced because of significant habitat degradation in lower basin tributaries such as Johnson and Kellogg Creek, and other urbanized portions of the lower Willamette River, Multnomah Channel and Sauvie Island. This habitat loss has reduced the population's diversity score. Despite this, the Clackamas is the only population in Oregon's portion of the species that is most likely in the viable category, and thus the risk of extinction for coho in Oregon remains high (McElhany *et al.* 2007).

LCR steelhead. This species includes all naturally spawning populations of steelhead in streams and tributaries of the Columbia River between, and including, the Cowlitz and Wind Rivers in Washington, along with, and including, the Willamette River and Hood River in Oregon. Excluded are steelhead in the upper Willamette River basin above Willamette Falls and steelhead from the Little and Big White Salmon Rivers in Washington (NMFS 2004).

Five population of winter steelhead and one population of summer steelhead exist in Oregon's portion of the species (McElhany *et al.* 2007). The population most likely present in the action area is the Clackamas, which is part of the cascade winter stratum.

In general, wild steelhead numbers are depressed from historical levels but are thought to exist in most of their historical range, and all historical populations are believed to be extant. However, up until recent years the presence of naturally spawning hatchery fish in most populations has been high (McElhany *et al.* 2007).

The Clackamas population is at low risk for abundance and productivity, although the future impacts of human population growth and climate change add a degree of uncertainty (McElhany *et al.* 2007). Loss of accessibility is limited to higher order streams, primarily due to watershed development in the lower basin. The upper Clackamas basin contains most of the historically-productive habitat, and most of that habitat is of high quality today. For the species, the overall risk classification for Oregon LCR steelhead is moderate, with the Clackamas population in the best shape.

Factors limiting recovery for LCR steelhead are degraded floodplain and stream channel structure and function, reduced access to spawning/rearing habitat, altered streamflow in tributaries, excessive sediment and elevated water temperatures in tributaries, and hatchery impacts (NMFS 2005, NMFS 2006). NMFS (2007) identified degraded floodplain connectivity and function; channel structure and complexity; riparian areas and large wood recruitment; stream substrate; streamflow; water quality; and fish passage and predation/competition as the major factors limiting recovery of this species.

UWR steelhead. All populations of the UWR steelhead migrate through and rear the action area. This species consists of four populations: Molalla, North Santiam, South Santiam,

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and Calapooia. These populations are depressed from historical levels, with adverse impacts from the alteration and loss of spawning and rearing habitat associated with hydropower development. Based on recent analyses of the population criteria, McElhany *et al.* (2007) concluded that the species risk of extinction is moderate, with the highest risk category being species diversity.

Habitat loss, hatchery steelhead introgression, and harvest are the major contributors to the decline of this species. Willamette Falls (RM 26.5) is a known migration barrier. Winter-run steelhead and spring-run Chinook salmon historically occurred above the falls, whereas summer-run steelhead, fall-run Chinook, and coho salmon did not. Detroit and Big Cliff Dams cut off access to 335 miles of spawning and rearing habitat in the North Santiam River. In general, habitat in this species has become substantially simplified since the 1800s by removal of large wood to increase the river's navigability.

NMFS (2007) identified degraded floodplain connectivity and function; channel structure and complexity; riparian areas and large wood recruitment; streamflow; fish passage; and predation/competition and disease as the major factors limiting recovery of this species.

General salmon and steelhead usage of the action area. LCR and UWR steelhead and Chinook salmon, and LCR coho salmon adults migrate through the lower Willamette River on their way to and from spawning grounds in tributaries of the Willamette River. Steelhead are not known to spawn in the mainstem of the Willamette River in the vicinity of the City of Portland (City). Chinook salmon may spawn not far upstream from the City boundary, perhaps in the lower end of the Clackamas River or in the Willamette River just below Willamette Falls, where suitable gravel-type substrate for spawning may occur, and perhaps in Johnson Creek. Coho salmon go up the Clackamas River to spawn. Recent observations of coho salmon juveniles in Miller Creek (tributary at RM 3 on the Willamette River) and in Johnson Creek by City biologists suggest that coho spawning may occur in small tributaries in the City. Chum salmon may use the first few miles of the Willamette River for juvenile rearing, but any occurrences would be very rare.

Adult Chinook and steelhead have been documented holding in the lower mainstem Willamette River for a period of time before moving upriver. Adults migrate upstream to spawn during early spring (spring Chinook), early fall (coho), late fall through winter (steelhead), and spawn in early to mid-fall (Chinook and coho) and spring (steelhead). Adult steelhead have been documented entering the mouth of the Clackamas River with a darkened coloration, indicating that they have been in freshwater for some time.

Fry emerge from the gravel in late spring/early summer, rear in the natal stream for 1 to 3 years, and outmigrate during spring and fall freshets. These juvenile steelhead, Chinook salmon and coho salmon migrate to the Pacific Ocean via the Willamette River.

From May 2000 through July 2003, the Oregon Department of Fish and Wildlife (ODFW) conducted a study of salmonids in the lower Willamette River (Friesen *et al.* 2005). Of the more than 5,000 juvenile salmonids collected during the study, over 87% were Chinook salmon, 9% were coho salmon, and 3% were steelhead. ODFW concluded that the Chinook salmon juveniles

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were largely spring-run stocks that rear in fresh water for a year or more before migrating to the ocean. Chinook salmon juveniles caught exhibited a bimodal distribution in length indicating the presence of both subyearlings and yearlings. Although at lower abundance, coho salmon juveniles also exhibited this bimodal distribution of yearlings and subyearlings.

The study's key finding is that the lower Willamette River is no longer appropriately considered simply a migration corridor. The presence of naturally-spawned Chinook from November through July, as well as significant evidence of fish growth, contradicts a longstanding assumption that spring Chinook primarily reared in their natal streams over the winter and migrated out of the Willamette River during the spring, and that therefore, Chinook were not present in the lower river outside of the spring migration period. In this study, however, juvenile Chinook salmon were present in every month sampled from May 2000 through July 2003. Juvenile salmon were captured more frequently during winter and spring than during other seasons. Coho and steelhead were generally present only during winter and spring.

As in the Columbia River, yearling and older juvenile salmon and steelhead in the Willamette River tend to be found in mid-channel areas, whereas subyearling fish tend to be most abundant at nearshore sites (Dawley *et al.* 1986, Dauble *et al.*1989, Friesen *et al.* 2005). Off-channel habitats such as alcoves, lagoons, backwater areas, and secondary channels are more important areas for juvenile refuge and rearing than mid-channel areas (Friesen 2005, Vile *et al.* 2004). Vile and his colleagues (2005) found significantly higher stomach fullness for juvenile Chinook salmon captured in off-channel sites in the lower Willamette River than at sites in the main river channels.

During the ODFW study (Friesen 2005), there were a few cases where yearling salmon did exhibit some form of habitat preference (coho salmon preferred beach habitat and rock outcrops and avoided riprap and artificial fill; abundance of all species was low at seawall sites). However, yearling Chinook and steelhead were not strongly associated with the shoreline and did not exhibit obvious preferences for the different habitat types in the lower river.

Status of Critical Habitat. The NMFS reviews the status of critical habitat affected by the proposed action by examining the condition and trends of primary constituent elements (PCEs) throughout the designated area. The PCEs consist of the physical and biological elements identified as essential to the conservation of the species in the documents identifying critical habitat (Tables 2).

The action area is within designated critical habitat for the affected species, except LCR coho salmon, for which critical habitat has not been proposed or designated. The PCEs potentially found at the project site are freshwater rearing and freshwater migration. The value of critical habitat for the species is limited by poor water quality, altered hydrology, lack of floodplain connectivity and shallow-water habitat, and lack of complex habitat to provide forage and cover.

The present condition of PCEs within designated areas and the human activities that have affected PCE trends are further described in the environmental baseline.

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Table 2. Types of habitats, essential physical and biological features, and affected life history events named as PCEs in all salmon and steelhead critical habitat designations.

Habitat	Essential Physical and Biological Features	Affected Life History Event
Freshwater spawning	Water quality, water quantity, and substrate	Spawning, incubation, and larval development
Freshwater rearing	Water quantity and floodplain connectivity	Juvenile growth and mobility
	Water quality and forage	Juvenile development
	Natural cover [a]	Juvenile mobility and survival
Freshwater migration	Free of artificial obstructions, water quality and quantity, and natural cover [a]	Juvenile and adult mobility and survival
Estuarine areas	Free of obstruction, water quality and quantity, and salinity	Juvenile and adult physiological transitions between salt and freshwater
	Natural cover,[a] forage,[b] and water quantity	Growth and maturation
Nearshore marine areas	Free of obstruction, water quality and quantity, natural cover,[a] and forage [b]	Growth and maturation, survival
Offshore marine areas	Water quality and forage [b]	Growth and maturation

[a] Natural cover includes shade, large wood, log jams, beaver dams, aquatic vegetation, large rocks and boulders, side channels, and undercut banks.

[b] Forage includes aquatic invertebrate and fish species that support growth and maturation.

Environmental Baseline

The 'environmental baseline' includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR 402.02). An environmental baseline that does not meet the biological requirements of an ESA-listed species may increase the likelihood that adverse effects of the proposed action will result in jeopardy to a listed species or in destruction or adverse modification of a designated critical habitat.

The NMFS describes the environmental baseline in terms of the biological requirements for habitat features and processes necessary to support all life stages of each ESA-listed species within the action area. Each listed species considered in this Opinion resides in or migrates through the action area. Thus, for this action area, the biological requirements for salmon and steelhead are the habitat characteristics that support successful juvenile rearing, and juvenile and adult migration.

The action area is within the lower Willamette River watershed between RM 10 and the confluence with the Columbia River. The Willamette River watershed covers approximately

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11,500 square miles in northwest Oregon, between the Coast and Cascade Ranges. The river flows 187 miles from its headwaters to its mouth at the Columbia River. Most of the rainfall occurs in the fall, winter, and spring, with little rainfall during June, July, and August. The lowest river flow occurs during late summer. The 13 Corps dams on tributary systems largely regulate flows in the mainstem Willamette River.

Significant changes have occurred in the watershed since the arrival of Europeans in the 1800s. The watershed was mostly forested land before the arrival of white settlers. Now, about half the basin is still forested. One-third of the basin is used for agriculture, and about 5% is urbanized or is in residential use. The river receives direct inputs from treated municipal wastes and industrial effluents. Nonpoint source input from agricultural, silvicultural, residential, urban and industrial land uses are also significant, especially during rainfall runoff. The industrial section of the Willamette River, including the action area, has been deepened and narrowed through channelization.

The Willamette River, from its mouth to Willamette Falls, is on the 2006 DEQ 303(d) list as water quality limited for temperature (summer), bacteria, biological criteria (fish skeletal deformities), and toxics [mercury in fish tissue, dieldrin, aldrin, PCBs, DDT/ dichlorodiphenyldichloroethylene (DDE), PAHs, manganese, iron, and pentachlorophenol]. Results from DEQ ambient monitoring data indicate that 68% of the values at RM 7, and 61% of the values at RM 13.2 collected during the summer exceed the temperature standard of 68°F. In the lower Willamette River, average turbidity levels tend to be higher in fall and winter months. Monthly average turbidity ranges from 4-149 nephelometric turbidity units (NTUs). In September 2006, the U.S. Environmental Protection Agency (EPA) approved a Total Maximum Daily Load (TMDL) for mercury, bacteria, and temperature in the lower Willamette River (http://www.deq.state.or.us/wq/tmdls/willamette.htm).

In 1997, DEQ and the EPA took sediment samples within the Portland Harbor. The results of the study indicated that sediments in the harbor, including within the action area, contain concentrations of metals, PCBs, pesticides, herbicides, dioxins/furans, tributlytin (TBT), and PAHs above NMFS' contaminant guidelines (http://response.restoration.noaa.gov/book_shelf/121_sedi_qual_guide.pdf). Cleanup of the contaminated sediments is presently being addressed under the Federal Superfund process. The initial study area for the listing is between RM 3.5 to RM 9.5, although the final designation is likely to expand beyond this area.

The Ash Grove site is just upstream of the initial study area of the superfund site, but still within the industrial section of the Portland Harbor. Sediments in this reach are predominantly comprised of silt and clay with a small percentage of sand. Although no suitable spawning habitat is present, the substrate may support habitat for prey organisms used by migrating listed salmonids.

Habitat conditions within the lower Willamette River are also highly degraded. The streambanks have been channelized, off-channel areas removed, tributaries put into pipes, and the river disconnected from its floodplain as the lower valley was urbanized. Silt loading to the lower Willamette River has increased over historical levels due to logging, agriculture, road building,

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and urban and suburban development within the watershed. Limited opportunity exists for large wood recruitment to the lower Willamette River due to the paucity of mature trees along the shoreline, and the lack of relief along the shoreline to catch and hold the material. The lower Willamette River has been deepened and narrowed through channelization, diking and filling, and much of the shallow-water habitat has been converted to deep-water habitat; 79% of the shallow water through the lower river has been lost through historic channel deepening (Northwest Power and Conservation Council 2004). In addition, much of the historical off-channel habitat has been lost due to diking and filling of connected channels and wetlands. Columbia Slough, a tributary within the action area, is the closest remaining off-channel habitat. Connections between the slough and the river have been cut off, and dikes have been constructed along much of the slough.

Shallow-water habitats are important for juvenile salmonids because they provide food resources, such as benthic macroinvertebrates, zooplankton, and emergent insects, and refuge from predators in the main river. Although juvenile outmigrants may occupy the entire river, subyearling salmonids tend to migrate close to the water surface and near the shoreline. The reduction in current velocities aid juvenile fish by significantly reducing their energy requirements. Because juveniles are small and have relatively weak swimming abilities, feeding is most effective in areas where current velocities are slow. Most of the dredge prism is greater than 20 feet deep and it unlikely to provide shallow-water feeding habitat.

The Willamette River is tidally-influenced within the action area. Juvenile and adult Chinook salmon, coho salmon, chum salmon, and steelhead use the project area as a migratory corridor and as rearing habitat for juveniles.

The City of Portland and the ODFW recently completed a 4-year study to evaluate relationships between fish communities and waterway development (Friesen 2005). Their data demonstrate that juvenile salmon and steelhead are present in the lower Willamette River nearly year-round. The abundance of all juvenile salmon and steelhead increased beginning in November, peaked in April, and declined to near zero by July. Some of the larger juveniles may spend extended periods of time in off-channel habitat. Mean migration rates of juvenile salmon ranged from 2.7 km/day for steelhead to 8.6 km/day for subyearling Chinook salmon. Residence time in the lower Willamette River ranged from 4.9 days for Chinook to 15.8 days for steelhead. Catch rates of juvenile salmon were significantly higher at sites composed of natural habitat (*e.g.*, beach, alcoves). Juvenile salmon tended to move along the east bank of the river.

Effects of the Action

'Effects of the action' means the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR 402.02). If the proposed action includes offsite measures to reduce net adverse effects by improving habitat conditions and survival, NMFS will evaluate the net combined effects of the proposed action and the offsite measures as interrelated actions.

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The proposed action will affect the listed salmonids considered in this opinion by causing physical, chemical and biological changes to the environmental baseline, and through direct effects. Fish migrating through or rearing within the action area during in-water work will have reduced benthic and pelagic forage opportunities, and will be exposed to short-term negative water quality effects, including increased turbidity and increased contaminants. The greatest risk to rearing or migrating salmon and steelhead is the suspension of contaminated sediments, and the potential for direct harm because the work area will not be isolated from the river. Dredging will also maintain the existing habitat as deep-water habitat despite being in a depositional area that has a potential to develop into shallow-water habitat, a rare habitat-type in the lower Willamette River. The analysis below will first describe the effects of the action to water quality and habitat, then describe the potential for direct effects to listed salmonids, and finally describe the potential for effects as a consequence of changes in water quality and habitat.

Effects to Water Quality. The proposed action will reduce water quality during and immediately following in-water activities. The suspension and transport of sediments is a direct result of dredging activities. The used of a close-lipped bucket dredge will result in an increase in turbidity that will be localized and short-term, and should be dissipated within a few hours following cessation of the activity. However, there is some evidence that higher turbidity along the river bottom may persist for several days after the cessation of dredging (Parametrix 2006). Ash Grove predicts dredging will require dredging will require up to 2 weeks.

The concentration of contaminants in the water column will increase along with turbidity, thus increasing the exposure of listed salmonids and prey species. In addition, the concentration of dissolved contaminants will increase due to the disturbance of the substrate. The sediments within the proposed dredge prism are contaminated with PAHs, copper, and nickel. These contaminants tend to be associated with the sediment particles, but may have a dissolved fraction as well. Elevated concentrations of both dissolved and particulate contaminants are likely downstream or upstream from dredging, depending on the tidal stage during the dredging activity, and the increases in turbidity and particulate and dissolved contaminants are likely to remain elevated within the proposed action area for up to 24 hours following dredging. Therefore, turbidity and contaminant concentrations are likely to remain elevated throughout the two weeks of dredging.

Effects to Physical Habitat and Prey Base. The area proposed for dredging at Ash Grave's facility is deep-water habitat. In deep-water habitat, the primary mode of feeding for juvenile salmonids is pelagic (*e.g.*, *Daphnia*, *Corophium* spp.; Vile *et al.* 2004) rather than benthic. Increased turbidity during dredging will disrupt pelagic feeding in the dredge area, and this effect will last for up to 24 hours following the in-water activities. It is unlikely that numeric changes in the pelagic community will be measurable following dredging because of the flow-induced movements of these animals, and their transient presence in the action area. Thus, pelagic feeding in the deep-water dredging will be disrupted for a maximum of several weeks, but the effects are not expected to be measurable over the long term.

The benthic mode of feeding may also be used within the dredge area. The temporal extent of disruptions to benthic feeding during and following dredging will be longer. The benthic invertebrate populations will be disturbed over the long term (weeks to months) within the

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dredge prism until the new exposed substrate layer is recolonized. The existing contamination, disturbance of the substrate and deposition of fine sediment induced from dredging, and the frequent ship activity will likely slow the development of a healthy benthic community at the project site, and the effects to benthic productivity and availability as prey items will last at least several months after dredging.

Effects on ESA-Listed Species

The presence/absence information for listed salmonids in the action area during the Willamette River summer in-water work of July 1 through October 31 is provided in Table 3. The peak timing for adult coho salmon migration begins in October, but otherwise the numbers of listed salmonids in the lower Willamette River is at its lowest during the summer window. Densities of juvenile salmonids, the more sensitive and vulnerable life stage, are lower in the summer months compared with the winter months (Friesen 2005), and the summer in-water work window avoids peak smolt out-migration and peak adult migration for both Chinook salmon and steelhead. While adult chum salmon may be present in the Willamette River at the end of the in-water work period, it is highly unlikely that they will be present at the Ash Grove terminal at RM 10. Therefore, Ash Grove has minimized the potential for direct interaction between dredging equipment and listed salmonids by scheduling the dredging work during the summer work window.

Table 3. The presence/absence of ESA-listed salmonids in the lower Willamette River during the summer in-water work window (July 1 to October 31). 'Y' indicates the species is present, 'Y-' indicates that while the life stage may be present, peak migration is not at this time', 'N' indicates that the species is not likely to be present.

Species	Summer In-water Work Window	
	Adults	Juveniles
LCR Chinook salmon	Y	Y-
UWR Chinook salmon	Y	Y
CR chum salmon	Y-	N
LCR coho salmon	Y	Y-
UWR steelhead	N	Y-
LCR steelhead	Y-	Y-

If listed salmonids are present while dredging is on-going, migration may be delayed or impaired (Quigley 2003, Hecht *et al.* 2007). Adults are better able to avoid the work area, but juvenile salmon and steelhead are less able to swim around the disturbance and their movements may be delayed. If they are delayed in areas with suitable cover and forage opportunities, then the delay will likely be energetically neutral; however, if cover and forage are not available, then the delay can mean greater risk of predation, increased exposure to contaminants, energetic costs associated with poor food availability and swimming in current. Further, avoidance of dissolved contaminants such as copper is unlikely, and exposure to the contaminants can impair sensory functions important to the survival of juvenile salmonids (Hecht *et al.* 2007). The analysis below examines the potential for effects to these species due to exposure to increased contaminants and

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turbidity. Based on chemical analyses of sediment at the Ash Grove terminal, potential contaminants at the site include PAHs, copper and nickel.

PAHs in water tend to adsorb to sediments either in the water column or in bottom sediments. This adsorption generally makes them less bioavailable via direct contact with organisms. However, a portion of these PAHs are likely bioavailable to benthic fish and invertebrates through direct contact and diet. PAHs are bioaccumulated in benthic invertebrates, and are passed to salmonids through the food chain (Meador *et al.* 1995). Fish feeding in the project area are likely to ingest contaminated invertebrates and incidentally ingest elevated levels of PAHs or other contaminants that have adsorbed to particles in the water column. PAHs are metabolized and detoxified in vertebrates such as fish, and therefore, not bioaccumulated (Varanasi *et al.* 1989). However, some intermediate metabolites of PAHs possess carcinogenic properties and cause other adverse effects in mammals and fish (Johnson 2000). Arkoosh *et al.* (1994) found that exposure to both PAHs and PCBs impaired immunity in juvenile fall Chinook salmon. Impaired immunity has been linked to increased susceptibility to disease and increased predation in the marine environment.

Fish exposed to hydrocarbons in their environment have exhibited fin erosion, liver abnormalities, cataracts, and immune system impairments leading to increased susceptibility to disease (Fabacher *et al.* 1991, Weeks and Warinner 1984, 1986, O'Conner and Huggett 1988). Work by Jim Meador and his colleagues (2006) has shown that exposure to petroleum hydrocarbons can result in a significant reduction in weight and a reduction in lipid stores in juvenile Chinook salmon, which would have the potential to cause increased mortality for juvenile fish as they move through the estuary and into the ocean.

Copper is a common constituent of stormwater runoff from roads and other impervious surfaces, and is a common ingredient in pesticides. It is bioavailable to salmonids and directly toxic to salmon and steelhead early life stages at low concentrations. Neurotoxic effects of copper can affect anti-predator behavior, shoaling and rheotaxis (flow orientation) (Baldwin *et al.* 2003). Based on the sediment chemistry in the dredge prisms and the size of the disturbance area, it is unlikely that concentrations of contaminants in the Willamette River will exceed concentrations causing acute lethality as a consequence of maintenance dredging. However, it is possible that the chronic criteria will be exceeded within the action area. The duration is likely to be during dredging and within a few hours following. In a review of the literature, Hecht et al. (2007) found that exposure to low concentrations of dissolved copper can impair essential behaviors may manifest within minutes and continue for hours to days depending on concentration and exposure duration. The impairment affects predator avoidance behaviors and other avoidance responses, growth, reproduction, and ultimately survival. The proposed action will last several weeks when juvenile salmonids may be present. Exposure to increased concentrations of copper has the potential to harm juvenile salmonids in the vicinity of the dredge prism during and immediately following dredging.

The effects of elevated nickel concentrations on fish are not well studied although a review by Eisler (1998) provides some insights. Nickel is a natural metal in the environment; human activities that contribute to increased loading of nickel include mining, smelting, refining, scrap metal reprocessing, fossil fuel combustion, and waste incineration. Nickel mining and smelting in northern Ontario, Canada, resulted in the widespread mortality of plants. Mixtures of metals

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that include nickel salts are more toxic to daphnids and fishes than are predicted on the basis of their individual components (Enserink *et al.* 1991). Signs of nickel poisoning in fish include surfacing, rapid mouth and opercular movements and loss of equilibrium. Deaths occur among embryos of rainbow trout at 11-90 µg/L, daphnids at 13 µg/L, embryos of catfish at 38 µg/L, and embryos of largemouth bass at 113 µg/L. Other aquatic species exhibit a reduction in growth at lower concentrations. Nickel is more toxic when copper is present. Fish can accumulate nickel from food and water, and nickel can bioaccumulate in livers and kidneys. It is unclear what the effects of elevated nickel concentrations on listed salmonids would be from the proposed action; no information is available on the predicted water column concentrations. Acute lethality is not predicted, although sublethal exposures may occur, particularly when combined with elevated copper concentrations. Exposure to increased concentrations of nickel has the potential to harm juvenile salmonids in the vicinity of the dredge prism during and immediately following dredging.

Based on the sediment chemistry in the dredge prisms and the size of the disturbance area, it is unlikely that concentrations of contaminants in the Willamette River will exceed concentrations causing acute lethality as a consequence of maintenance dredging. However, it is possible that the chronic criteria will be exceeded in the vicinity of the dredging. The duration is likely to be during dredging and within a few hours following. Since the proposed action will cause short-term increases in contaminants (several weeks) at most, exposure to contaminants as a consequence of the proposed action are unlikely to result in lethality, but is likely to result in behavioral changes (*e.g.*, avoidance, altered feeding, delayed migration), physiological stress, and reduced fitness of juvenile salmonids.

Effects to the prey base are likely to have affects on juvenile salmonids rearing or migrating through the project area for a period of days to weeks during and following dredging. The importance of the site as a rearing area for juvenile salmonids is limited, and the disturbance to the benthic community at the site likely will not alter feeding opportunities for salmonids in the lower river as a whole. Further, sediment movement in the Willamette River is a very dynamic process, and the organic content and particle size will return to background within several days to weeks following dredging in the project area. Recolonization by macroinvertebrates will quickly follow, although the suitability of the newly exposed substrate to benthic production is unknown. The applicant may be required to place a sand cap over the newly exposed sediment if it is determined through sediment sampling that the newly exposed surface is unsuitable for benthic colonization and poses a risk for salmonids. Therefore, even if the benthic invertebrate population is being eaten by juvenile salmonids, the disruption to this food source will cover a very small area (maximum of 5.6 acres of deep-water habitat), and will be limited to a few months following dredging.

Fish will be exposed to increased suspended sediment and turbidity downstream from project activities. The effects of suspended sediment and turbidity on fish, as reported in the literature, range from beneficial to detrimental. Elevated total suspended solids (TSS) conditions have been hypothesized to enhance cover conditions, reduce predation on salmonids, and improve survival. Elevated TSS conditions have also been reported to cause physiological stress, reduce growth, and adversely affect survival (Gammon 1970, Noggle 1978, Berg and Northcote 1985). Of key importance in considering the detrimental effects of TSS on fish are the frequency and

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the duration of the exposure, not just the TSS concentration. The proposed in-water work will increase turbidity and suspended sediment in the Willamette River. The increases in turbidity and suspended solids will be short-term (weeks) and dissipate within several hours, will be localized, and will likely trigger similar adverse effects to those described above for listed salmonids in the vicinity.

As stated above, adult fish will likely avoid the area. Juvenile salmon are more likely to be affected because they are less able to swim away from in-water disturbances, and they are more commonly found along the edge of the rivers where the majority of project activities will occur. Therefore, some juvenile salmonids will likely be injured by the increased turbidity within the action area. The effects will likely be increased physiological stress, reduced feeding, and change in behavior (*e.g.*, Hecht *et al.* 2007, Quigley 2003). Because the duration of the in-water portion of the proposed action is expected to be short-term (several weeks), and the spatial extent is small, the effect of increased turbidity and contaminants at the population level or at the species scale is not likely to be measurable.

The combined effects of increased suspended sediment and increased concentrations of particulate and dissolved contaminants are not known, but could be additive, synergistic (greater than additive), or antagonistic (less than the sum of their individual effects). Adult and juvenile salmonids may avoid the area when possible, although subyearling Chinook salmon may be less effective at avoiding the area because of their poor swimming ability and greater densities than other species. The combined effects will likely be increased physiological stress, reduced feeding, and change in behavior, which frequently result in impaired growth, reduced lipid stores, and increased likelihood of mortality.

Effects on Critical Habitat

Designated critical habitat within the action area for the salmonids considered in this Opinion consists of a freshwater rearing site and freshwater migration corridor and their essential physical and biological features as listed below. The effects of the proposed action on these features are summarized as a subset of the habitat-related effects of the action that were discussed more fully above. The water quality effects described will be short-term (maximum of several weeks) during and immediately following in-water dredging. The dredging will cause short-term effects to deep-water benthic and pelagic habitat. The PCEs potentially affected by the proposed action are water quality, forage/space, natural cover, and free passage. The likely effects of the action on these essential features are listed below.

1. Water Quality. Water quality will be reduced within the action area for up to several weeks. Suspended sediment will likely be highest within a few hundred feet of the dredging activities. Water quality may also be degraded by accidental spills from equipment or contaminants releases, or made more available during dredging. Elevated concentrations of both dissolved and particulate contaminants are likely downstream or upstream from the terminal, depending on the tidal stage, and the increases in turbidity and particulate and dissolved contaminants are likely to remain elevated within the action area throughout the period of dredging which will be a maximum of several weeks. However, over the long term, water quality in the action area will be maintained.

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2. Forage/Space. Increased suspended sediment will temporarily reduce food resources of juvenile salmon in the action area, but impacts to the forage base would only occur for a few weeks during and immediately following dredging. The primary food resource in the deeper parts of the site are pelagic invertebrates, and recolonization from upstream areas will be fairly rapid. The action area does not provide good benthic feeding habitat, which is limiting at the watershed scale. Pelagic feeding is not limited at the watershed scale. The longer term consequence of maintenance dredging is a permanent loss of shallow-water habitat as depositional areas that could potentially develop into shallow-water habitat are maintained as deep-water habitat. Shallow-water rearing (resting and feeding) habitat is limiting at the reach scale, and the lack of opportunities for resting and feeding is an energetic cost to juvenile salmonids as they move toward the estuary. However, the proposed maintenance dredging will be maintaining the current condition.
3. Natural Cover. Suspended sediment may provide salmonids with cover from predators. However, a more likely response from adult salmonids would be avoidance of areas with high turbidity.
4. Free Passage. Suspended sediment might delay migration of adults and juveniles during and immediately following dredging activities. Adults are more likely to avoid the active work area because of their strong swimming ability, but juveniles are less likely to avoid the area, and migration will more likely be delayed or impaired.

Factors limiting the salmonid populations in the lower Willamette River are water temperature, water quality, and channel modification (loss of shallow habitat). Of these limiting factors, water quality and channel modification can be affected by the proposed action. While this project will have impacts on the limiting factors identified in this analysis, it is not expected to affect the conservation value of the lower Willamette River to listed salmonid populations. The adverse effects to sediment (turbidity and contaminant exposure) will be temporary and localized, and the proposed action will be maintaining the existing deep-water habitat at the site.

Some PCEs (suspended sediment, food resources, natural cover, and safe passage) will be adversely affected, but these effects are not likely to meaningfully change the listed salmonids' survival rates, distribution or diversity at the population level and are not likely to meaningfully change the conservation value of the PCEs. The effects to water quality, food resources, natural cover, and safe passage are all localized and short-term, but will not affect the conservation value of the action area over the long term as long as there will be no loss of habitat in the action area. The habitat value of the watershed for the species is already very low and has low potential for improvement, either naturally or through active restoration, because of the highly industrialized nature of this portion of the watershed. Thus, the project is not reasonably likely to reduce the conservation value of critical habitat in the lower Willamette River.

Cumulative Effects

'Cumulative effects' are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). Cumulative effects that reduce the capacity of ESA-listed species to meet their biological requirements in the action area increase the risk to the species that the effects of the proposed action on the species or its habitat will result in jeopardy.

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NMFS is not aware of any specific future non-Federal activities within the action area that would cause greater impacts to listed species than presently occurs. Industrial activities will continue within the action area, as will the ongoing CERCLA clean-up of contaminated sediments. As part of the CERCLA action and the resulting Natural Resource Damage Assessment, as well as the City of Portland's commitment to restore listed salmon and steelhead, habitat restoration actions will be constructed and provide benefits to rearing and migrating fish.

Conclusion

After reviewing the status of salmonids considered in this Opinion, and their designated critical habitats, the environmental baseline for the action area, the effects of the proposed action, and cumulative effects, NMFS concludes that the action, as proposed by the Corps and Ash Grove, is not likely to jeopardize the continued existence of the listed salmonids, and will not result in the destruction or adverse modification of designated critical habitat. These conclusions are based on the following considerations.

The NMFS identified adult and juvenile migration, and fry and juvenile rearing as primary limiting factors for the ESA-listed species in this Opinion. Juvenile rearing and migration habitat is limited by poor water and sediment quality, and degradation of physical habitat. Adult spawning is limited by poor access to quality spawning areas, and a lack of quality spawning areas. The major risk factors remain and most populations are at relatively low abundance with risk for all categories, including abundance, productivity, diversity and spatial structure for the various species (Good *et al.* 2005, McElhany *et al.* 2007). The Willamette River is designated critical habitat for four of the five listed species. It is rated as having 'high' conservation value, although present conditions in the action area are degraded due to industrialization and urbanization in the basin that have altered flows, degraded water quality, reduced the availability of shallow water habitat, and reduced the complexity of the channel.

The proposed action will cause brief (weeks) degradation of rearing conditions in the action area, including impacts to water quality, forage, space and safe passage conditions, all of which are limiting factors for the listed species. However, over the long term (years), the proposed action will maintain existing water quality and habitat conditions at the Ash Grove terminal.

A very small proportion of the total number of each salmon and steelhead species will be affected by the short-term adverse effects of the action on rearing and migratory conditions. This is because only a small portion of each of the species will be migrating past the site during the in-water work window, or will be rearing in the action area during project activities. Those few fish will be exposed to additional stress caused primarily by reduced water quality, increased turbidity, and impaired passage. Any stress and resulting injury experienced by those fish is likely to be brief (weeks) and limited to the action area. A few other fish may be injured or killed due to the culmination of joint causes, such as stress due to the action, a previous wound inflicted by the environmental baseline, and genetic weakness. These adverse effects will be experienced by far too fish to produce an observable effect on these listed salmon and steelhead at either the population or species scale.

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Further, the proposed action will not cause additional degradation of freshwater rearing habitat or adverse modification of critical habitat PCEs. The current degraded value of critical habitat will last as long as the terminal is in operation, a condition that is likely to last for decades. The negative effects will be short-term or an extension of the existing condition, and will not contribute to a reduction in the conservation value of designated critical habitat for the ESA-listed salmon and steelhead.

Reinitiation of Consultation

Reinitiation of formal consultation is required and shall be requested by the Federal agency or by NMFS where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If the amount or extent of taking specified in the incidental take statement is exceeded; (b) if new information reveals effects of the action that may affect ESA-listed species or critical habitat in a manner or to an extent not previously considered; (c) if the identified action is subsequently modified in a manner that has an effect to the ESA-listed species or critical habitat that was not considered in the biological opinion; or (d) if a new species is listed or critical habitat is designated that may be affected by the identified action (50 CFR 402.16).

To reinitiate consultation, contact the Oregon State Habitat Office of NMFS and refer to the NMFS Number assigned to this consultation (2007/05812).

Incidental Take Statement

Section 9(a)(1) of the ESA prohibits the taking of listed species without a specific permit or exemption. Protective regulations adopted pursuant to section 4(d) extend the prohibition to threatened species. Among other things, an action that harasses, wounds, or kills an individual of a listed species or harms a species by altering habitat in a way that significantly impairs its essential behavioral patterns is a taking (50 CFR 222.102). Incidental take refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(o)(2) exempts any taking that meets the terms and conditions of a written incidental take statement from the taking prohibition.

Amount or Extent of Take

Activities necessary to complete the proposed maintenance dredging at the Ash Grove terminal will take place within the active channel of the Willamette River when individuals of Chinook salmon, coho salmon, and steelhead considered in this Opinion are likely to be present. Adverse effects of the proposed action will include the temporary loss of prey items for rearing juveniles, and an increase in turbidity, sediment, and potential exposure to pollutants (PAHs, copper and nickel). The habitat that will be adversely affected by the proposed action is of moderate to poor quality and not limited at the site-specific or watershed scale. Nonetheless, these effects are reasonable likely to result in incidental take—harassment of adults and juveniles, and harm of juveniles (avoidance behaviors, impaired feeding, reduced growth)— within an area extending from 500 feet upstream to 500 feet downstream of the terminal.

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The distribution and abundance of fish that occur within an action area are affected by habitat quality, competition, predation, and the interaction of processes that influence genetic, population, and environmental characteristics. These biotic and environmental processes interact in ways that may be random or directional, and may operate across far broader temporal and spatial scales than are affected by the proposed action. Thus, the distribution and abundance of fish within the action area cannot be attributed entirely to habitat conditions, nor can NMFS precisely predict the number of fish that are reasonably certain to be injured or killed if their habitat is modified or degraded by the proposed action.

The best available indicator for the extent of take is the area of the active channel that is used by listed salmonids as habitat that will be disturbed by dredging activities and the extent of suspended sediment plumes. These features best integrate the likely take pathways associated with this action, are proportional to the anticipated amount of harm, and are the most practical and feasible indicators to measure. Thus, the extent of take indicators that will be used as reinitiation triggers for this consultation are: (1) The disturbance of 5.6 acres of migration and rearing habitat from dredging one time during the summer in-water work window; and (2) increased suspended sediment from dredging activities with suspended sediment plumes measured 500 feet from dredging activities at 5 NTU over the background level for two consecutive monitoring intervals during the summer window. Dredging-generated suspended sediment is an extent of take indicator due to the direct relationship between suspended sediment and contaminant concentrations.

In the accompanying Opinion, NMFS determined that this level of incidental take is not likely to result in jeopardy to the species. The increase in turbidity and the aerial extent of dredging are thresholds for reinitiating consultation. Exceeding this indicator for extent of take will trigger the reinitiation provisions of this Opinion.

Reasonable and Prudent Measures

Reasonable and prudent measures are nondiscretionary measures to avoid or minimize take that must be carried out by cooperators for the exemption in section 7(o)(2) to apply. The Corps has the continuing duty to regulate the activities covered in this incidental take statement where discretionary Federal involvement or control over the action has been retained or is authorized by law. The protective coverage of section 7(o)(2) may lapse if the Corps fails to exercise its discretion to require adherence to terms and conditions of the incidental take statement, or to exercise that discretion as necessary to retain the oversight to ensure compliance with these terms and conditions. Similarly, if any applicant fails to act in accordance with the terms and conditions of the incidental take statement, protective coverage may lapse.

Full application of impact reduction measures included as part of the proposed action, together with use of the reasonable and prudent measures and terms and conditions described below, are necessary and appropriate to minimize the likelihood of incidental take of listed species due to completion of the proposed action.

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The Corps shall:

1. Minimize incidental take from project-related activities by applying permit conditions to the proposed action that avoid or minimize adverse effects to water quality and the ecology of aquatic systems.
2. Ensure completion of a monitoring and reporting program to confirm this incidental take statement is meeting its objective of minimizing incidental take from permitted activities.

Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the Corps and its cooperators, including the applicant, if any, must fully comply with conservation measures described as part of the proposed action and the following terms and conditions that implement the reasonable and prudent measures described above. Partial compliance with these terms and conditions may invalidate this take exemption, result in more take than anticipated, and lead NMFS to a different conclusion regarding whether the proposed action will result in jeopardy or the destruction or adverse modification of critical habitats.

1. To implement reasonable and prudent measure #1, the Corps shall ensure that:

    a. Work Window. To minimize effects to juvenile salmonids, dredging shall be limited to the summer in-water work window (July 1 through October 31).
    b. Notice to Contractors. Before beginning work, all contractors working on site shall be provided with a complete list of Corps permit special conditions, reasonable and prudent measures, and terms and conditions intended to minimize the amount and extent of take resulting from general dredging activities and in-water work.
    c. Minimize Impact Area. The applicant will confine dredging impacts to the minimum area necessary to complete the project. If a floating crane is used, it shall not rest on or disturb bottom sediment (this does not apply to spuds that may be used to stabilize a barge).
    d. No Fallback or Redistribution. All digging passes of the bucket shall be completed without any material being returned to the wetted area. Dumping of partial or full buckets of dredged material back into the project area is not allowed. Dredging of holes or sumps below the maximum depth, and redistribution of sediment by dredging, dragging or other means is not allowed.
    e. Debris. All large anthropogenic debris shall be removed from dredged sediments and transported to an appropriate disposal site.
    f. Cycling Time. Clamshell cycling time shall be slowed, as necessary, to reduce turbidity and reduce sediment drift to adjacent areas.
    g. Monitoring. The size of the dredge prism shall be monitored (amount and areal extent). Quantitative turbidity monitoring shall be conducted and recorded as described below. Monitoring shall occur each day during daylight hours when in-water work is being conducted. A properly and regularly calibrated turbidimeter is required.

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i. Representative background point. A sample must be taken every 2 hours at a relatively undisturbed area approximately 600 feet upcurrent from in-water disturbance to establish background turbidity levels for each monitoring cycle. Background turbidity, location, time, and tidal stage must be recorded prior to monitoring downcurrent.

ii. Compliance point. Monitoring shall occur every 2 hours approximately 500 feet downcurrent from the point of discharge and be compared against the background measurement. The turbidity, location, time, and tidal stage must be recorded for each sample. At a minimum, a measurement must be taken within two feet of the river bottom, and at least one other depth.

iii. Compliance. Results from the compliance points should be compared to the background levels taken during that monitoring interval. Turbidity may not exceed an increase of **5 NTUs** above background during the summer in-water work window.

iv. Exceedance. If an exceedance over the background level occurs, the applicant must modify the activity and continue to monitor every 2 hours. If an exceedance over the background level continues after the second monitoring interval, the activity must stop until the turbidity levels return to background. If the exceedances continue, then work must be stopped and NMFS notified so that revisions to the BMPs can be evaluated.

v. Reporting. Copies of daily logs for turbidity monitoring shall be available to NMFS upon request.

h. If the weather conditions are unsuitable to monitor the dredging operations (heavy fog, excessive winds, rough water, *etc.*), then dredging operations must cease until conditions are suitable for monitoring.

i. Pollution Control Plan. The applicant will place dredge material onto a flat-decked barge with watertight sideboards or a bin-type barge. Decant water will not be discharged back into the river. The dredge material and water will be transported to the upland disposal site. In addition, the applicant will implement a pollution control plan (PCP) to prevent pollution caused by dredging operations from entering the river. The PCP must have the following components:

i. The name and address of the party responsible for accomplishment of the PCP.

ii. Practices to prevent erosion and sedimentation associated with equipment and material storage sites and fueling staging areas.

iii. A description of any regulated or hazardous products or materials that will be used for the project, including procedures for inventory, storage, handling, and monitoring.

iv. A spill containment and control plan with notifications procedures, specific cleanup and disposal instructions for different products, quick response containment and cleanup measures that will be available on the site, proposed methods for disposal of spilled materials, and employee training for spill containment.

v. Practices to prevent debris from dropping into any stream or waterbody, and to remove any material that does drop with a minimum disturbance to the streambed and water quality.

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vi. During dredging activities, monitoring of in-stream turbidity will be made as often as necessary to ensure the erosion controls discussed above are working properly. If monitoring or inspection shows that the sediment controls are ineffective, work crews will be mobilized immediately to make repairs, install replacements, or install additional controls as necessary.

j. Transport. The sediments shall be covered during transport on the barge to prevent the blowing of sediment back into the river if winds are predicted to be greater than 20 miles per hour during transport. As stated above, no water shall be discharged from the barge.

k. Upland Disposal Site. The upland disposal site shall be large enough to accommodate the quantity of material and water to be placed there to allow adequate settling. Best management practices shall be employed to reduce turbidity levels form the upland disposal location to the maximum extent practicable. Filter bags, sediment fences, silt curtains, leave strips or berms, or other measures shall be inspected and maintained daily to ensure their proper function. No water shall be discharged from the temporary or permanent disposal site to waters with ESA-listed species.

l. Leave Surface. After dredging, the applicant must take three leave surface samples (non-composited) and have the samples analyzed for the SEF constituents of concern. Results of the analyses must be submitted to NMFS to determine the need of a sand cap over the dredged area. If the applicant already has archived samples that have not expired and have been appropriately stored, those samples can be analyzed for this purpose.

m. Sand Cap. If the NMFS review of sediment chemistry data determines that a cap is required after dredging, then clean sand (free of contaminants) shall be used to construct the cap over the dredged area. After the sand cap is complete, cores shall be taken to verify the depth of the cap; a minimum of three cores shall be taken. If the cap does not meet the minimum depth of 6 inches, additional sand shall be placed and cores taken again to verify the depth.

n. If water is pumped from the river, intake screens will be installed as described by NMFS (http://www.nwr.noaa.gov/Salmon-Hydropower/FERC/upload/juv-screen-crit.pdf).

2. To implement reasonable and prudent measure #2, the Corps shall ensure that:

a. Reporting. The applicant reports all monitoring items including turbidity measurements, size of the dredged area (amount and aerial extent), depth of sand cap (if needed) and dates of initiation and completion of work, to NMFS within 60 days of the close of any work window that had dredging activity within it. Any exceedance of take covered by this Opinion must be reported by the applicant to NMFS immediately. The report will include a discussion of implementation of the terms and conditions in #1, above.

AGC0012324

b. The applicant will submit monitoring reports to:

National Marine Fisheries Service
Oregon State Habitat Office
Attn: 2007/05812
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232-2778

c. The applicant posts the following notice prominently at the work site:

NOTICE: If a sick, injured or dead specimen of a threatened or endangered species is found in the project area, the finder must notify NMFS through the contact person identified in the transmittal letter for this Opinion, or through the NMFS Office of Law Enforcement at 1-800-853-1964, and follow any instructions. If the proposed action may worsen the fish's condition before NMFS can be contacted, the finder should attempt to move the fish to a suitable location near the capture site while keeping the fish in the water and reducing its stress as much as possible. Do not disturb the fish after it has been moved. If the fish is dead, or dies while being captured or moved, report the following information: (1) NMFS consultation number; (2) the date, time, and location of discovery; (3) a brief description of circumstances and any information that may show the cause of death; and (4) photographs of the fish and where it was found. The NMFS also suggests that the finder coordinate with local biologists to recover any tags or other relevant research information. If the specimen is not needed by local biologists for tag recovery or by NMFS for analysis, the specimen should be returned to the water in which it was found, or otherwise discarded.

MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

The consultation requirements of section 305(b) of the MSA directs Federal agencies to consult with NMFS on all actions, or proposed actions, that may adversely affect EFH. Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) also requires NMFS to recommend measures that may be taken by the action agency to conserve EFH.

The Pacific Fishery Management Council (PFMC) designated EFH for groundfish (PFMC 2005), coastal pelagic species (PFMC 1998), and Chinook salmon, coho salmon, and Puget Sound pink salmon (PFMC 1999). The proposed action and action area for this consultation are described in the Introduction to this document. The action area includes areas designated as EFH for various life-history stages of coho and Chinook salmon (PFMC 1999).

AGC0012325

Based on information provided in the BA and the analysis of effects presented in the ESA portion of this document, NMFS concludes that proposed action will have the following adverse effect on EFH designated for coho and Chinook salmon:

> Short-term (weeks) degradation of water quality from increased turbidity contaminant exposure.

EFH Conservation Recommendations

The NMFS believes that the following conservation measure is necessary to avoid, mitigate, or offset the impact of the proposed action on EFH. This conservation recommendation is an identical subset of the ESA terms and conditions.

1. Dredging and in-water work: Follow terms and conditions 1a – 1n as presented in the ESA portion of this document.
2. Monitoring and reporting: Follow terms and conditions 2a, 2b, and 2c as presented in the ESA portion of this document.

Statutory Response Requirement

Federal agencies are required to provide a detailed written response to NMFS' EFH conservation recommendations within 30 days of receipt of these recommendations [50 CFR 600.920(j)(1)]. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse affects of the activity on EFH. If the response is inconsistent with the EFH conservation recommendations, the response must explain the reasons for not following the recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

In response to increased oversight of overall EFH program effectiveness by the Office of Management and Budget, NMFS established a quarterly reporting requirement to determine how many conservation recommendations are provided as part of each EFH consultation and how many are adopted by the action agency. Therefore, in your statutory reply to the EFH portion of this consultation, we ask that you clearly identify the number of conservation recommendations accepted.

Supplemental Consultation

The Corps must reinitiate EFH consultation with NMFS if the proposed action is substantially revised in a way that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations [50 CFR 600.920(k)].

AGC0012326

DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW

Section 515 of the Treasury and General Government Appropriations Act of 2001 (Public Law 106-554) (Data Quality Act) specifies three components contributing to the quality of a document. They are utility, integrity, and objectivity. This section of the Opinion addresses these Data Quality Act (DQA) components, documents compliance with the DQA, and certifies that this Opinion has undergone pre-dissemination review.

Utility: Utility principally refers to ensuring that the information contained in this consultation is helpful, serviceable, and beneficial to the intended users.

This ESA consultation concludes that the proposed activities at the Ash Grove Terminal will not jeopardize the affected species. Therefore, the Corps can authorize this action in accordance with its authority under section 404 of the Clean Water Act and section 10 of the Rivers and Harbors Act of 1899. The intended users are the Corps and the Ash Grove Cement Company.

Individual copies were provided to the above-listed entities. This consultation will be posted on the NMFS Northwest Region website (http://www.nwr.noaa.gov). The format and naming adheres to conventional standards for style.

Integrity: This consultation was completed on a computer system managed by NMFS in accordance with relevant information technology security policies and standards set out in Appendix III, 'Security of Automated Information Resources,' Office of Management and Budget Circular A-130; the Computer Security Act; and the Government Information Security Reform Act.

Objectivity:

Information Product Category: Natural Resource Plan.

Standards: This consultation and supporting documents are clear, concise, complete, and unbiased; and were developed using commonly accepted scientific research methods. They adhere to published standards including the NMFS ESA Consultation Handbook, ESA Regulations, 50 CFR 402.01, *et seq.*, and the MSA implementing regulations regarding EFH, 50 CFR 600.920(j).

Best Available Information: This consultation and supporting documents use the best available information, as referenced in the Literature Cited section. The analyses in this Opinion/EFH consultation contain more background on information sources and quality.

Referencing: All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

Review Process: This consultation was drafted by NMFS staff with training in ESA and MSA implementation, and reviewed in accordance with Northwest Region ESA quality control and assurance processes.

AGC0012327

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AGC0012331

COMPLIANCE CERTIFICATION

U.S. Army Corps of Engineers
Regulatory Branch
CENWP-OD-GC
333 SW First Avenue, P.O. Box 2946
Portland, Oregon 97208-2946

1. Permittee Name: Ash Grove Cement Company

2. Corps Permit No: NWP-1997-114

3. Corps Contact: Ms. Debra Henry

4. Type of Activity: Dredging

Please sign and return form to the address above:

I hereby certify that the work authorized the above referenced permit has been completed in accordance with the terms and conditions of said permit and that required mitigation is completed in accordance with the permit conditions, except as described below.

_____

Signature of Permittee **Date**

AGC0012332

July 23, 2010

Oregon Department of Environmental Quality
Business Office
811 SW Sixth Avenue
Portland, OR 97204-1390

Re: Simple ACDP Modification
Permit # 26-0146
Ash Grove Cement Company
3737 N Port Center Way

To whom it may concern,

As a result of a conversation with DEQ permit writer Kathy Amidon which took place on July 13, 2010, we have agreed on the removal of Condition 2.2, Replacement Filter Bags, on page 3 of 11 of permit # 26-0146. If you have questions concerning this matter please call me at 503-247-5423.

Regards,

Glenn F. Dollar

Glenn F. Dollar
EHS Manager
Ash Grove Cement Company

Print Form

ADMINISTRATIVE INFORMATION

FORM AQ101
ANSWER SHEET

FOR DEQ USE ONLY	
Permit Number:	Type of Application:
Application No:	RNW ___ MOD ___ NEW ___ EXT ___
Date Received :	
Regional Office:	Check No. Amount $

1. Company	2. Facility Location
Legal Name: Ash Grove Cement Company	Name: Ash Grove Cement Company
Mailing Address: 3737 N Port Center Way	Street Address: 3737 N Port Center Way
City, State, Zip Code: Portland, OR 97217	City, County, Zip Code: Portland, OR 97217
Number of employees: 4	
3. Site Contact Person	**4. Standard Industrial Classification Code(s)**
Name: Glenn Dollar	Primary: 5032
Title: EHS Manager	Secondary:
Telephone number: 503-247-5423	**5. Other DEQ Permits**
Fax. number: 503-289-2272	WPCF #1700B NPDES 1200-Z
e-mail address: glenn.dollar@ashgrove.com	

6. Permit Action:

- ☐ New Simple ACDP
- ☐ New Construction ACDP
- ☐ New Standard ACDP
- ☐ New Standard ACDP (PSD/NSR)
- ☐ Renewal of an existing permit without changes (include form AQ403 for Standard ACDPs)
- ☐ Renewal of an existing permit with changes (include form AQ403 for Standard ACDPs)
- ☒ Modification of existing permit

7. Signature

I hereby apply for permission to discharge air contaminants in the State of Oregon, as stated or described in this application, and certify that the information contained in this application and the schedules and exhibits appended hereto, are true and correct to the best of my knowledge and belief.

Gary Wright
Name of official (Printed or Typed)

Operations Mgr 503-247-5424
Title of official and phone number

Gary Wright
Signature of official

07/23/2010
Date

AGC0012334

FEE INFORMATION

(Make the check payable to DEQ)

Note: The initial application fees and annual fees specified below (OAR 340-216-0020, Table 2, Parts 1 and 2) are only required for initial permit applications. These fees are not required for an application to renew or modify an existing permit. The appropriate specific activity fee(s) specified below (OAR 340-216-0020, Table 2, Part 3) applies to permit modifications or may be in addition to initial permit application fees.

OAR 340-216-0020, Table 2, Part 1 – INITIAL PERMITTING APPLICATION FEES:	
Short Term Activity ACDP	
Simple ACDP	
Construction ACDP	
Standard ACDP	
Standard ACDP (PSD/NSR)	
OAR 340-216-0020, TABLE 2, PART 2 - ANNUAL FEES:	
Simple ACDP – Low fee class	
Simple ACDP – High fee class	
Standard ACDP	
OAR 340-216-0020, TABLE 2, PART 3 - SPECIFIC ACTIVITY FEES:	
Non-technical permit modification	
Non-PSD/NSR basic technical permit modification	$360
Non-PSD/NSR simple technical permit modification	
Non-PSD/NSR moderate technical permit modification	
Non-PSD/NSR complex technical permit modification	
PSD/NSR modification	
Modeling review (outside PSD/NSR)	
Public hearing at applicant's request	
State MACT determination	
TOTAL FEES	$360

SUBMIT TWO COPIES OF THE COMPLETED APPLICATION TO:

New or Modified Permits (include fees):	**Permit Renewals (no fees):**
Oregon Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, OR 97204-1390	Oregon Department of Environmental Quality Air Quality Program, Northwest Region Office 2020 SW 4th Avenue, Suite 400 Portland, Oregon 97201-4987

AGC0012335

ash Grove Cement Company
.O. Box 25900
verland Park, KS 66225
913) 451-8900

Check No: 263150
Vendor No. 34393

INVOICE NO.	INVOICE DATE	GROSS AMOUNT	DISCOUNT	NET AMOUNT
DAR 340-216-0020	7/15/2010	360.00		360.00
TOTALS		360.00		360.00

THIS DOCUMENT HAS A VOID PANTOGRAPH, MICROPRINTING AND AN ARTIFICIAL WATERMARK.

Ash Grove Cement Company
P.O. Box 25900
Overland Park, KS 66225
(913) 451-8900

ASH GROVE

Bank of America
Bank of America, N.A.
Atlanta, Dekalb County, Georgia

64-1278
611

00263150

$*******360.00

Date 7/21/2010

PAY: THREE HUNDRED SIXTY AND 00/100**********

Void after 180 days.

PAY TO THE ORDER OF: DEPARTMENT OF ENVIRONMENTAL QUALITY
ATTN: BUSINESS OFFICE
811 SW SIXTH AVE.
PORTLAND, OR 97204-1390

John Woodfill
Authorized Signature

⑈00263150⑈ ⑆061112788⑆ ⑈3299924680⑈

AGC0012336

Oregon
John A. Kitzhaber, MD, Governor

Department of Environmental Quality
Northwest Region
2020 SW 4th Ave, Suite 400
Portland, OR 97201
(503) 229-5263
FAX (503) 229-6945
TTY 711

August 2, 2011

Ash Grove Cement Company
3737 N. Port Center Way
Portland, OR 97217-3565

Re: Issuance of Air Contaminant Discharge Permit
For: Ash Grove Cement Company
Permit # 26-0146, application # 25965

The Department of Environmental Quality has completed a review of your application for a renewal of your Air Contaminant Discharge permit. Based on the information in that application, the Department has issued the enclosed permit.

The effective date of the permit is the date it was signed by the regional Air Quality Manager. The signature and date appear on the first page of the document. The permit is issued pursuant to Oregon Revised Statutes 468A and Oregon Administrative Rules (OAR) 340-14-005 through 340-14-050, and 216-0010 through 216-0100.

You may appeal conditions or limitations contained in the attached permit by applying to the Environmental Quality Commission, or its authorized representative, within twenty days from the date of this letter. Appeals are pursuant to ORS Chapter 183 and OAR Chapter 340, Division 14-025 (6). Appeal procedures are contained in OAR Division 11-005 through 11-140.

A copy of the current permit must be available at the facility at all times. Failure to comply with permit conditions may result in civil penalties. **You are expected to read the permit carefully and comply with all conditions** to protect the environment of Oregon.

If you have any questions, please contact Kathy Amidon at 503-667-8414, extension 55010.

Sincerely,

David Monro
Air Quality Manager
Northwest Region

Enclosure
Cc: HQ/AQ
NWR

AGC0012337

SIMPLE
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, #400
Portland, Oregon 97201
(503) 229-5554

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Ash Grove Cement Company
3737 N. Port Center Way
Portland, OR 97217

INFORMATION RELIED UPON:

Application No.: 025965
Date Received: 03/30/11

PLANT SITE LOCATION:

3737 N. Port Center Way
Portland, OR 97227

LAND USE COMPATIBILITY FINDING:

Approving Authority: City of Portland
Approval Date: 1/19/06

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

David Monro, Northwest Region Air Quality Manager — Dated 3/31/2011

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Table 1 Code	Source Description	SIC / NAICS
Part B, 85	Source not otherwise listed that would emit 10 tons or more per year of a pollutant if uncontrolled (cement distribution)	5032 / 423320

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1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1. Visible Emissions The permittee must ensure that emissions from any air contaminant do not equal or exceed 20% opacity for a period aggregating more than 30 seconds in any one hour.

1.2. Particulate Matter Emissions The permittee must ensure that particulate matter emissions from any air contaminant source other than fugitive emission sources do not exceed 0.1 grains per standard cubic foot.

1.3. Fugitive Emissions The permittee must take reasonable precautions to prevent fugitive dust emissions by:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

1.4. Particulate Matter Fallout The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the deposition must be controlled.

1.5. Nuisance and Odors The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

2.0 OPERATION AND MAINTENANCE REQUIREMENTS

2.1. Baghouse Inspection and Maintenance The permittee must visually inspect each baghouse at least annually. The date, name of inspector, and corrective actions taken, if any, must be recorded and filed. If the inspection is conducted by a service provider, a legible statement of services will be acceptable. All occurrences of major maintenance (i.e., replacing more than 1/3 of the bags) must be recorded and filed.

3.0 PLANT SITE EMISSION LIMITS

3.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM_{10}	14	tons per year

3.2. Emission Limit Period

The plant site emissions limits apply to any 12-consecutive calendar month period.

4.0 COMPLIANCE DEMONSTRATION

4.1. PSEL Compliance Monitoring

Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation:

$$E = \Sigma(EF \times P)/2000 \text{ lbs}$$

where,

E = pollutant emissions (ton/yr);
EF = pollutant emission factor (see Condition 11.0);
P = process production (see Condition 12.0)

4.2. Emission Factors

The permittee must use the default emission factors provided in Condition 11.0 for calculating pollutant emissions, unless alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

5.0 RECORDKEEPING REQUIREMENTS

5.1. Operation and Maintenance

The permittee must maintain the following records related to the operation and maintenance of the plant and associated air contaminant control devices:

a. Monthly material throughput, in tons, as listed in the table below.

AGC0012341

Process	Baghouse(s)
Ship unloading	614.BF1
Conveyance to North tanks	614.BF2
North terminal storage tanks	614.BF3-5
Railcar loading	611.BF1
Reclaim airlift Dust Collector	611.BF2
Pipe conveyor receiving	611.BF3
Railcar unloading	621.BF1
South terminal storage silos	621.BF2
Truck load-out	621.BF3
Pipe conveyor discharge	621.BF4

b. Annual inspections and major maintenance on the baghouses, on occurrence.

c. Perform monthly calculation of 12-month emission rate in accordance with the formula in Condition 4.1.

5.2. Excess Emissions The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must cease operation of the equipment or facility no later than 48 hours after the beginning of the excess emissions, unless continued operation is approved by the Department in accordance with OAR 340-214-0330(4).

5.3. Complaint Log The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

5.4. Retention of Records Unless otherwise specified, all records must be maintained on site for a period of two (2) years and made available to DEQ upon request.

6.0 REPORTING REQUIREMENTS

6.1. Excess Emissions The permittee must notify the Department of excess emissions events if the excess emission is of a nature that could endanger public health.

a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition9.3.

b. If the excess emissions occur during non-business hours, the permittee must notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

c. The permittee must also submit follow-up reports when required by the Department.

6.2. Annual Report

For each year this permit is in effect, the permittee must submit to the Department by **February 15** two (2) copies of the following information for the previous calendar year:

a. Material throughput, in tons, as listed in the table below:

Process	Baghouse(s)
Ship unloading	614.BF1, 2
North terminal storage tanks	614.BF3-5
Railcar loading	611.BF1
Reclaim airlift dust collector	611.BF2
Pipe conveyor receiving	611.BF3
Railcar unloading	621.BF1
South terminal storage silos	621.BF2
Truck load-out	621.BF3
Pipe conveyor discharge	621.BF4

b. A summary of 12-month pollutant emissions determined each month in accordance with Section 4.0.

c. Date of the last annual baghouse inspection(s) and details of any major maintenance performed.

d. Records of all planned and unplanned excess emissions events.

e. Summary of complaints relating to air quality received by permittee during the year.

f. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

6.3. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

6.4. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

7.0 PERMIT REWENAL AND MODIFICATIONS

7.1. Permit Renewal Application

The completed application package for renewal of this permit is due on **04/01/16**. Two (2) copies of the application must be submitted to the DEQ Permit Coordinator listed in Condition 9.2.

7.2. Permit Modifications

Application for a modification of this permit must be submitted not less than **60** days prior to the source modification. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the Revenue Section of the Department.

8.0 FEES

8.1. Annual Compliance Fee

The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Simple ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.

8.2. Change of Ownership or Company Name Fee

The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.

8.3.	**Special Activity Fees**	The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.

9.0 DEQ CONTACTS / ADDRESSES

9.1. Business Office

The permittee must submit payments for invoices, applications to modify the permit, and any other payments to DEQ's Business Office:

Department of Environmental Quality
Revenue Section
811 SW Sixth Avenue
Portland, Oregon 97204-1390

9.2. Permit Coordinator

The permittee must submit all Notices and applications that do not include payment to the Northwest Region's Permit Coordinator:

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
Telephone: (503) 229-5582

9.3. Field Office

Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) to field office noted below.

Department of Environmental Quality
NWR-ESO/AQ
1550 NW Eastman Pkwy, Suite 290
Gresham, OR 97030
Telephone: (503) 667-8414

9.4. Web Site

Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us

10.0 GENERAL CONDITIONS AND DISCLAIMERS

10.1.	**Permitted Activities**	This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
10.2.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
10.3.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
10.4.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
10.5.	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
10.6.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
10.7.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
10.8.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
10.9.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
10.10.	**Permit Expiration**	Permit expiration applies as follows:

a. A source may not be operated after the expiration date of the permit, unless any of the following occur prior to the expiration date of the permit:

i. A timely and complete application for renewal or for an Oregon Title V Operation Permit has been submitted, or

ii. Another type of permit (ACDP or Oregon Title V Operating Permit) has been issued authorizing operation of the source.

b. For a source operating under an ACDP or Oregon Title V Operating permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially.

10.11. Termination, Revocation, or Modification

The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

11.0 EMISSION FACTORS – PM_{10}

Emissions device or activity	Control Unit	Emission Factor (EF)	EF units	EF reference
Ship unloading	614.BF1	0.00497	Lb/ton	AP-42
Conveyance to storage tanks	614.BF2	0.00243	Lb/ton	AP-42
North terminal storage tanks	614.BF3-5	0.00032	Lb/ton	AP-42
Railcar loading	611.BF1	0.00171	Lb/ton	AP-42
Reclaim airlift dust collector	611.BF2	0.00469	Lb/ton	AP-42
Pipe conveyor receiving	611.BF3	0.00135	Lb/ton	AP-42
Railcar unloading	621.BF1	0.00043	Lb/ton	AP-42
South terminal storage silos	621.BF2	0.00081	Lb/ton	AP-42
Truck load-out	621.BF3	0.00129	Lb/ton	AP-42
Pipe conveyor discharge	621.BF4	0.00086	Lb/ton	AP-42

12.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter	Frequency
Ship unloading	Tons of material unloaded	Monthly
North terminal storage tanks (1-3)	Tons of material transferred	Monthly
South terminal storage silos	Tons of material transferred	Monthly
Rail load-out	Tons of material shipped	Monthly
Truck load-out	Tons of material shipped	Monthly

13.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit
ASTM	American Society for Testing and Materials
AQMA	Air Quality Maintenance Area
calendar year	The 12-month period beginning January 1st and ending December 31st
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Oregon Department of Environmental Quality
dscf	dry standard cubic foot
EPA	US Environmental Protection Agency
FCAA	Federal Clean Air Act
gal	gallon(s)
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

TACT Typically

Simple AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Department of Environmental Quality
Northwest Region

Source Information:

SIC	5032
NAICS	423320

Source Categories (Table 1 Part, code)	B 85
Public Notice Category	II

Compliance and Emissions Monitoring Requirements:

FCE	
Compliance schedule	
Unassigned emissions	
Emission credits	
Special Conditions	

Source test [date(s)]	
COMS	
CEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	15 Feb
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	
Other (specify)	

Air Programs

Synthetic Minor (SM)	
SM -80	
NSPS (list subparts)	
NESHAP (list subparts)	
Part 68 Risk Management	
CFC	

NSR	
PSD	
RACT	
TACT	X
Other (specify)	

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ADDITIONAL REQUIREMENTS 5
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PERMITTING

PERMITTING ACTION

1. The proposed permit is a renewal permit which was issued on 6/16/06 and originally scheduled to expire on 6/1/2011.

2. Addendum 1, issued 8/13/10, rescinded Condition 2.2 which required that each bag in the baghouses be rated at 99.99% efficiency.

OTHER PERMITS

3. Other permits issued or required by the Department of Environmental Quality for this source include a general storm water permit for the former Goldendale facility. The Ash Grove portion is a designated Water Pollution Control Facility for discharge of process water.

ATTAINMENT STATUS

4. The source is located in a maintenance area for CO and Ozone. NO_X and VOC are precursors to Ozone. The facility is an insignificant source of CO, NO_X and VOC. The area is in attainment for all other criteria pollutants, including PM and PM_{10}. The subject facility is a source of PM_{10} only.

5. The source is not located within 10 kilometers of the Mt Hood Wilderness Area and the emissions are less than the significant emissions rate.

SOURCE DESCRIPTION

OVERVIEW

6. The permittee operates a cement and alumina transfer facility. Material is unloaded from ships and railcars, transferred to storage silos, then loaded out to trucks and railcars. The former Goldendale side was built in 1982 and includes ship unloading, conveyance to silos; and a railcar load-out point. The Ash Grove side was built in 1995 and includes a railcar un-load facility, storage elevator, and truck load-out point. The two sides are connected by a fully enclosed pipe conveyor. .

7. Since the last permit renewal, two baghouses have been added to the facility. Some ground granulated blast furnace slag is now processed at the facility. A chemical analysis conducted in 2009 showed the slag to be of comparable particle size and consistency to cement and alumina. No adjustment to emission factors was deemed necessary.

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PROCESS AND CONTROL DEVICES

8. Air contaminant sources at the facility consist of the following:

Baghouse	Activity
614.BF1	Ship unloading
614.BF2	Conveyance to North storage tanks
614.BF3-5	North terminal storage tanks
611.BF1	Railcar loading
611.BF2	Reclaim airlift dust collector
611.BF3	Pipe conveyor receiving
621.BF1	Railcar unloading
621.BF2	South terminal storage silos
621.BF3	Truck load-out
621.BF4	Pipe conveyor discharge

COMPLIANCE

9. The facility was inspected on 6/27/07 and 7/13/10 and found to be in compliance with permit conditions.

EMISSIONS

10. Proposed PSEL information:

Pollutant	Baseline Emission Rate (tons/yr)	Netting Basis		Plant Site Emission Limits (PSEL)		
		Previous (tons/yr)	Proposed (tons/yr)	Previous PSEL (tons/yr)	Proposed PSEL (tons/yr)	PSEL Increase (tons/yr)
PM_{10}	n/a	n/a	n/a	14	14	0

a. The proposed PSEL is equal to the Generic PSEL in accordance with OAR 340-216-0064(4) (b) and the netting basis is zero in accordance with OAR 340-222-0040(2).
b. All activities are controlled by baghouses. Therefore, all PM emissions are considered to be PM_{10}.
c. The emission factors in the previous permit reflected the conceptual design. Emission factors in the proposed permit are based on actual equipment design capacities and flows, using efficiencies of the baghouses equivalent to 0.01 gr/dscf.
d. The PSEL is a federally enforceable limit on the potential to emit.

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SIGNIFICANT EMISSION RATE ANALYSIS

11. The proposed Plant Site Emission Limit is less than the Netting Basis plus the significant emission rate, thus no further air quality analysis is required.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

12. A major source is a facility that has the potential to emit 100 or more tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions. The conveyance systems that comprise this bulk terminal are controlled by baghouses. Plant operations cease when the control system is not functioning. The facility's potential to emit based on 8,760 hours of operation and 1,050,000 tons throughput, is 12 tons PM_{10}.

HAZARDOUS AIR POLLUTANTS

13. A major source is a facility that has the potential to emit 10 or more tons/year of any single HAP, or 25 or more tons/year of combined HAPs. This facility is not a source of hazardous air pollutants.

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

14. There are no sources at this facility for which NSPS standards have been promulgated.

NESHAPS/MACT APPLICABILITY

15. There are no sources at this facility for which NESHAPS/MACT standards have been promulgated.

RACT APPLICABILITY

16. The facility is located in the Portland AQMA, but it is not one of the listed source categories in OAR 340-232-0010, thus the RACT rules do not apply.

TACT APPLICABILITY

17. The source is meeting the state's TACT/Highest and Best Rules by controlling emissions through the use of baghouses at all critical points and a fully enclosed conveyor between the two parts of the plant area.

PUBLIC NOTICE

18. Pursuant to OAR 340-216-0064(5) (a), issuance of Simple Air Contaminant Discharge Permits require public notice in accordance with OAR 340-209-0030(3) (b), which requires that the Department provide notice of the proposed permit action and a minimum of 30 days for interested persons to submit written comments. The public notice was mailed June 29, 2011, and the comment period ended August 1, 2011, at 5 p.m. No comments were received.

ka:gg

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Form U 2012

U.S. Environmental Protection Agency
Washington, DC 20460
Partial Updating of TSCA Inventory Data Base Site Report

(Section 8(a) Toxic Substances Control Act, 15 U.S.C. 2607(a))

Check all that apply	
Original 2012 submission	X
Joint submission(s)- as primary submitter	
Joint submission – as secondary submitter	
Revision to an original submission	

CERTIFICATION

Certification Statement: I hereby certify to the best of my knowledge and belief that (1) all information entered on this form is complete and accurate; and (2) any confidentiality claims are true and correct as to that information for which they have been asserted. Any knowing and willful misinterpretation is subject to criminal penalty pursuant to 18 USC 1001.

Signature		Official Title	
Name (printed)		Email Address	
Date Signed			

PART I. COMPANY & SITE IDENTIFICATION INFORMATION

SECTION A. PARENT COMPANY INFORMATION*

1.A.1	Parent Company Name	Ash Grove Cement Company			
1.A.2	Parent Company Dun & Bradstreet Number	00-712-3698			
1.A.3	Parent Company Address (line 1)	11011 Cody			
1.A.4	Parent Company Address (line 2)				
1.A.5	City	Overland Park	1.A.6	County/Parish	Johnson
1.A.7	State	KS	1.A.8	Zip Code	66210

SECTION B. SITE INFORMATION*

1.B.1	Site Name	Ash Grove Cement Company			
1.B.2	Site Dun & Bradstreet Number	00-712-3698			
1.B.3	Site Address (line 1)	3737 N. Port Center Way			
1.B.4	Site Address (line 2)				
1.B.5	City	Portland	1.B.6	County/Parish	Multnomah
1.B.7	State	OR	1.B.8	Zip Code	97217

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SECTION C. TECHNICAL CONTACT INFORMATION*									
1.C.1	Prefix	Mr.	First Name	Glenn			Middle Initial	F	
	Last Name	Dollar					Suffix		
1.C.2	Company Name	Ash Grove Cement							
1.C.3	Telephone	5032475423							
1.C.4	Email Address	glenn.dollar@ashgrove.com							
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.							
1.C.6	Mailing Address (line 2)								
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203	
1.C.10	Country	US							

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION					
2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	1305-78-8	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Calcium oxide (CaO)			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only)			NA	
2.A.5	Trade name			
2.A.6	Other Information			
2.A.7	Secondary Company Name			
2.A.7	Secondary Company Address			

2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country	

SECTION B. MANUFACTURING INFORMATION							
2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M3	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume				
2.B.4	Activity	M of (I)	CBI	
2.B.5	Domestically Manufactured		CBI	
2.B.6	Imported	23135000	CBI	X
2.B.7	Chemical never physically at site	No	CBI	
2.B.8	Volume used on site	0	CBI	
2.B.9	Volume Exported	0	CBI	

Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
		Check all that apply	CBI	Percent	CBI
2.B.13	Dry Powder	X		100	X
2.B.14	Pellets or Large Crystals				
2.B.15	Water or Solvent Wet Solid				
2.B.16	Other Solid				
2.B.17	Gas or Vapor				
2.B.18	Liquid				
2.B.19	Unknown				

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	
	Calcium oxide (CaO)		
	P1IndustrialUse-1-Other Specify		Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

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SECTION C. TECHNICAL CONTACT INFORMATION*									
1.C.1	Prefix	Mr.	First Name	Glenn		Middle Initial	F		
	Last Name	Dollar				Suffix			
1.C.2	Company Name	Ash Grove Cement							
1.C.3	Telephone	5032475423							
1.C.4	Email Address	glenn.dollar@ashgrove.com							
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.							
1.C.6	Mailing Address (line 2)								
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203	
1.C.10	Country	US							

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION					
2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	7631-86-9	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Silica			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only)		NA	
2.A.5	Trade name		
2.A.6	Other Information		
2.A.7	Secondary Company Name		
2.A.7	Secondary Company Address		

2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country	

SECTION B. MANUFACTURING INFORMATION							
2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M3	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume				
2.B.4	Activity	M of (I)	CBI	
2.B.5	Domestically Manufactured		CBI	
2.B.6	Imported	18508000	CBI	X
2.B.7	Chemical never physically at site	No	CBI	
2.B.8	Volume used on site	0	CBI	
2.B.9	Volume Exported	0	CBI	

Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
		Check all that apply	CBI	Percent	CBI
2.B.13	Dry Powder	X		100	X
2.B.14	Pellets or Large Crystals				
2.B.15	Water or Solvent Wet Solid				
2.B.16	Other Solid				
2.B.17	Gas or Vapor				
2.B.18	Liquid				
2.B.19	Unknown				

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	
	Silica		
	P1IndustrialUse-1-Other Specify		Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

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SECTION C. TECHNICAL CONTACT INFORMATION*									
1.C.1	Prefix	Mr.	First Name	Glenn		Middle Initial	F		
	Last Name	Dollar				Suffix			
1.C.2	Company Name	Ash Grove Cement							
1.C.3	Telephone	5032475423							
1.C.4	Email Address	glenn.dollar@ashgrove.com							
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.							
1.C.6	Mailing Address (line 2)								
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203	
1.C.10	Country	US							

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION					
2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	1309-48-4	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Magnesium oxide (MgO)			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only)			NA	
2.A.5	Trade name			
2.A.6	Other Information			
2.A.7	Secondary Company Name			
2.A.7	Secondary Company Address			

2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country	

SECTION B. MANUFACTURING INFORMATION							
2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M2	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
		Check all that apply	CBI	Percent	CBI
2.B.13	Dry Powder	X		100	X
2.B.14	Pellets or Large Crystals				
2.B.15	Water or Solvent Wet Solid				
2.B.16	Other Solid				
2.B.17	Gas or Vapor				
2.B.18	Liquid				
2.B.19	Unknown				

Report CY 2011 Production Volume				
2.B.4	Activity	M of (I)	CBI	
2.B.5	Domestically Manufactured		CBI	
2.B.6	Imported	6477800	CBI	X
2.B.7	Chemical never physically at site	No	CBI	
2.B.8	Volume used on site	0	CBI	
2.B.9	Volume Exported	0	CBI	

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	

Magnesium oxide (MgO)

P1IndustrialUse-1-Other Specify Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

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SECTION C. TECHNICAL CONTACT INFORMATION*								
1.C.1	Prefix	Mr.	First Name	Glenn		Middle Initial	F	
	Last Name	Dollar				Suffix		
1.C.2	Company Name	Ash Grove Cement						
1.C.3	Telephone	5032475423						
1.C.4	Email Address	glenn.dollar@ashgrove.com						
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.						
1.C.6	Mailing Address (line 2)							
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203
1.C.10	Country	US						

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION					
2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	1344-28-1	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Aluminum oxide (Al_2O_3)			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only)			NA	
2.A.5	Trade name			
2.A.6	Other Information			
2.A.7	Secondary Company Name			
2.A.7	Secondary Company Address			

2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country	

SECTION B. MANUFACTURING INFORMATION							
2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M2	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume						Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
								Check all that apply	CBI	Percent	CBI
2.B.4	Activity	M or (I)	CBI			2.B.13	Dry Powder	X		100	X
2.B.5	Domestically Manufactured		CBI			2.B.14	Pellets or Large Crystals				
2.B.6	Imported	3328600	CBI	X		2.B.15	Water or Solvent Wet Solid				
2.B.7	Chemical never physically at site	No	CBI			2.B.16	Other Solid				
2.B.8	Volume used on site	0	CBI			2.B.17	Gas or Vapor				
2.B.9	Volume Exported	0	CBI			2.B.18	Liquid				
						2.B.19	Unknown				

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	

Aluminum oxide (Al2O3)

P1IndustrialUse-1-Other Specify Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

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SECTION C. TECHNICAL CONTACT INFORMATION*								
1.C.1	Prefix	Mr.	First Name	Glenn	Middle Initial	F		
	Last Name	Dollar			Suffix			
1.C.2	Company Name	Ash Grove Cement						
1.C.3	Telephone	5032475423						
1.C.4	Email Address	glenn.dollar@ashgrove.com						
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.						
1.C.6	Mailing Address (line 2)							
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203
1.C.10	Country	US						

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION					
2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	1309-37-1	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Iron oxide (Fe2O3)			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only)											NA	
2.A.5	Trade name											
2.A.6	Other Information											
2.A.7	Secondary Company Name											
2.A.7	Secondary Company Address											
2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country		

SECTION B. MANUFACTURING INFORMATION									
2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M2	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume				
2.B.4	Activity	M or (I)	CBI	
2.B.5	Domestically Manufactured		CBI	
2.B.6	Imported	332860	CBI	X
2.B.7	Chemical never physically at site	No	CBI	
2.B.8	Volume used on site	0	CBI	
2.B.9	Volume Exported	0	CBI	

Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
		Check all that apply	CBI	Percent	CBI
2.B.13	Dry Powder	X		100	X
2.B.14	Pellets or Large Crystals				
2.B.15	Water or Solvent Wet Solid				
2.B.16	Other Solid				
2.B.17	Gas or Vapor				
2.B.18	Liquid				
2.B.19	Unknown				

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE N/A X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	
	Iron oxide (Fe2O3)		
	P1IndustrialUse-1-Other Specify		Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

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SECTION C. TECHNICAL CONTACT INFORMATION*									
1.C.1	Prefix	Mr.	First Name	Glenn			Middle Initial	F	
	Last Name	Dollar					Suffix		
1.C.2	Company Name	Ash Grove Cement							
1.C.3	Telephone	5032475423							
1.C.4	Email Address	glenn.dollar@ashgrove.com							
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.							
1.C.6	Mailing Address (line 2)								
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203	
1.C.10	Country	US							

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION					
2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	1344-43-0	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Manganese oxide (MnO)			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only)											NA	
2.A.5	Trade name											
2.A.6	Other Information											
2.A.7	Secondary Company Name											
2.A.7	Secondary Company Address											
2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country		

SECTION B. MANUFACTURING INFORMATION									
2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M1	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume				
2.B.4	Activity	M of (I)	CBI	
2.B.5	Domestically Manufactured		CBI	
2.B.6	Imported	462700	CBI	X
2.B.7	Chemical never physically at site	No	CBI	
2.B.8	Volume used on site	0	CBI	
2.B.9	Volume Exported	0	CBI	

Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
		Check all that apply	CBI	Percent	CBI
2.B.13	Dry Powder	X		100	X
2.B.14	Pellets or Large Crystals				
2.B.15	Water or Solvent Wet Solid				
2.B.16	Other Solid				
2.B.17	Gas or Vapor				
2.B.18	Liquid				
2.B.19	Unknown				

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	
	Manganese oxide (MnO)		
	P1IndustrialUse-1-Other Specify		Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

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SECTION C. TECHNICAL CONTACT INFORMATION*								
1.C.1	Prefix	Mr.	First Name	Glenn		Middle Initial	F	
	Last Name	Dollar				Suffix		
1.C.2	Company Name	Ash Grove Cement						
1.C.3	Telephone	5032475423						
1.C.4	Email Address	glenn.dollar@ashgrove.com						
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.						
1.C.6	Mailing Address (line 2)							
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203
1.C.10	Country	US						

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION

2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	7704-34-9	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Sulfur			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only) — NA

2.A.5	Trade name										
2.A.6	Other Information										
2.A.7	Secondary Company Name										
2.A.7	Secondary Company Address										
2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country	

SECTION B. MANUFACTURING INFORMATION

2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M2	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume				
2.B.4	Activity	M of (1)	CBI	
2.B.5	Domestically Manufactured		CBI	
2.B.6	Imported	925400	CBI	X
2.B.7	Chemical never physically at site	No	CBI	
2.B.8	Volume used on site	0	CBI	
2.B.9	Volume Exported	0	CBI	

Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
		Check all that apply	CBI	Percent	CBI
2.B.13	Dry Powder	X		100	X
2.B.14	Pellets or Large Crystals				
2.B.15	Water or Solvent Wet Solid				
2.B.16	Other Solid				
2.B.17	Gas or Vapor				
2.B.18	Liquid				
2.B.19	Unknown				

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Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	
	Sulfur		
	P1IndustrialUse-1-Other Specify		Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to custoumers.

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SECTION C. TECHNICAL CONTACT INFORMATION*									
1.C.1	Prefix	Mr.	First Name	Glenn			Middle Initial	F	
	Last Name	Dollar					Suffix		
1.C.2	Company Name	Ash Grove Cement							
1.C.3	Telephone	5032475423							
1.C.4	Email Address	glenn.dollar@ashgrove.com							
1.C.5	Mailing Address (line 1)	13939 N Rivergate Blvd.							
1.C.6	Mailing Address (line 2)								
1.C.7	City	Portland	1.C.8	State	OR	1.C.9	Zip Code	97203	
1.C.10	Country	US							

*Confidentiality claims for information in Part I, Sections A, B, and C, are made, as necessary, for each chemical substance on subsequent pages.

PART II. MANUFACTURING INFORMATION

SECTION A. CHEMICAL IDENTIFICATION

2.A.1	CBI for Chemical Identification*				
2.A.2	Chemical Identifying Number	13397-24-5	2.A.3	Number ID Code	CASRN
2.A.4	Chemical Name	Gypsum (Ca(SO4).2H2O)			

SECTION A. JOINT SUBMISSION INFORMATION (Primary Submitter only) — NA

2.A.5	Trade name										
2.A.6	Other Information										
2.A.7	Secondary Company Name										
2.A.7	Secondary Company Address										
2.A.9	City		2.A.10	State or Province		2.A.11	Zip Code		2.A.12	Country	

SECTION B. MANUFACTURING INFORMATION

2.B.1	CBI for Company Identification		2.B.10	Number of Workers	W1	CBI	
2.B.2	CBI for Site Identification*		2.B.11	Maximum Concentration	M2	CBI	
2.B.3	CBI for Technical Contact Information		2.B.12	Is chemical being recycled?	Yes	CBI	

Report CY 2011 Production Volume						Report Physical Form		a. Physical Form		b. % PV in Each Physical Form	
								Check all that apply	CBI	Percent	CBI
2.B.4	Activity	M of (I)	CBI			2.B.13	Dry Powder	X		100	X
2.B.5	Domestically Manufactured		CBI			2.B.14	Pellets or Large Crystals				
2.B.6	Imported	2313500	CBI	X		2.B.15	Water or Solvent Wet Solid				
2.B.7	Chemical never physically at site	No	CBI			2.B.16	Other Solid				
2.B.8	Volume used on site	0	CBI			2.B.17	Gas or Vapor				
2.B.9	Volume Exported	0	CBI			2.B.18	Liquid				
						2.B.19	Unknown				

EPA FORM U 2012--- Primary

Page ___ of ___.

Report Past PV	a. CY 2010		b.		c.		d.	
	PV	CBI	PV	CBI	PV	CBI	PV	CBI
2.B.20	0							

PART III. PROCESSING AND USE INFORMATION

SECTION A. INDUSTRIAL PROCESSING AND USE — N/A

	a. Type of Process or Use		b. Sector(s)		c. Industrial Function Category		d. Percent Production Volume		e. Number of Sites		f. Number of Workers	
	Code	CBI*	Code	CBI*	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.A.1	U		IS46		U999		100		NKRA		NKRA	
3.A.2												
3.A.3												
3.A.4												
3.A.5												
3.A.6												
3.A.7												
3.A.8												
3.A.9												
3.A.10												

SECTION B. CONSUMER AND COMMERCIAL USE — N/A — X

	a. Product Category		b. Consumer or Commercial		c. Used in Products Intended for Children?		d. Percent Production Volume		e. Maximum Concentration		f. Number of Commercial Workers	
	Code	CBI*	Code	CBI *	Code	CBI*	%	CBI*	Code	CBI*	Code	CBI*
3.B.1												
3.B.2												
3.B.3												
3.B.4												
3.B.5												
3.B.6												
3.B.7												
3.B.8												
3.B.9												
3.B.10												

*Substantiation required for CBI claims on chemical identity, site identity, and processing or use information.

Continuation Sheet

ID		Field	

Gypsum (Ca(SO4).2H2O)

P1IndustrialUse-1-Other Specify Industrial Use

U999

Chemical is contained in ground granulated blast furnace slag which is imported, stored, and shipped to customers.

Paperwork Reduction Act Notice

The annual public burden for this collection of information, which is approved under OMB Control Number 2070-0162, is estimated to be approximately 137 hours per response for a full report and 54 hours per response for a partial report. A full report includes manufacturing, processing, and use information. A partial report includes manufacturing information and does not include processing and use information. According to the Paperwork Reduction Act, "burden" means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. For this collection it includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information; processing and maintaining information; and disclosing or providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB number. The OMB control number for this collection appears above. In addition, the OMB control numbers for EPA's regulations, after initial display in the final rule, are listed in 40 CFR part 9.

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DEQ SITE ASSESSMENT PROGRAM – SITE STRATEGY RECOMMENDATION

Site Name:	Ash Grove Cement – Rivergate Plant
Property Owner:	Ash Grove Cement Company 11011 Cody Street Overland Park, KS 66210 Contact: Glen Dollar, Safety and Environmental Manager
EPA CERCLIS Number:	None.
DEQ ECSI Number:	4696
Site Address/Location:	13939 N. Rivergate Blvd., Portland, OR Multnomah County TRS: Township 2N, Range 1W, Section 26 Latitude: 45 degrees, 37 minutes, 21.76 seconds Longitude: -122 degrees, 47 minutes, 5.51 seconds Tax Lot ID: 2N1W26C 0700 Size: 29.61 acres
Recommendation By:	Chuck Harman, Site Assessment Section, DEQ Northwest Region
Approved By:	Bruce Gilles, Cleanup and Emergency Response Manager, DEQ Northwest Region
Date:	June 29, 2009

Background

The Ash Grove Cement – Rivergate Plant (AGC) site was added to DEQ's Environmental Cleanup Site Information (ECSI) database in August of 2006 due to measurements of elevated contaminants in sediments along the site's pier in the Willamette River. The sediments were sampled in preparation for dredging in the area adjacent to the pier. Sediments were found to contain elevated concentrations of polynuclear aromatic hydrocarbons (PAHs), polychlorinated pesticides/herbicides, and polychlorinated biphenyls (PCBs). Due to these measurements the site was referred to DEQ Northwest Region's Site Assessment Program.

Ash Grove Cement has operated a plant at this location since 1963.

This screening will review historic site information, evaluate potential contamination sources and recommend possible future actions at the site. This screening is being performed under an agreement between DEQ and the U.S. Environmental Protection Agency (Cooperative Agreement V-990519).

In Spring of 2008, EPA Region 10 sent Ash Grove Cement a 104(e) information request. Ash Grove Cement (AGC) responded in October of 2008 with a series of reports, appendices and answers to questions. DEQ reviewed some of this material, but a full summary of all of the information provided in the 104(e) response is beyond the scope of this report. Copies of the materials from the 104(e) request will be kept in DEQ's file for this site.

Physical Setting

- *Site Topography and Setting*

The site is located at 13939 N. Rivergate Boulevard, in Portland, Oregon. The site location is shown on Figure 1. Based on DEQ's review of topographic maps and a site visit, this site is predominantly flat, with a steep embankment into the Willamette River along its west side. Topographic maps show that the property is at about 35 feet above sea level (asl) and slopes to the water line, which is about at 10 feet asl, but will fluctuate seasonally and is tidal influenced.

The site is located in a heavy industrial area in north Portland.

The site is not served by municipal sewers. There is a septic drainfield located on the east side of the property in an open grassed area, but AGC has been hooked up to sanitary sewer since 2002.

- *Local Land Use*

Figure 2 is an aerial photograph from 2007 from Google Earth which has been annotated to highlight site features and surrounding area land uses. The area around AGC is used for heavy industrial, and is zoned as such.

The properties that border the site to the north, south, and east are largely industrial, with JR Simplot (ECSI # 3343), an agricultural supplier to the north, Consolidated Metco (ECSI# 3295) and Beall Trailers (ECSI# 10) to the east, and a warehouse/shipping business leased to Georgia-Pacific by the Port of Portland to the south.

The nearest residential area is located approximately 0.44 miles to the west-northwest and consists of rural residential farm properties along the eastern edge of Sauvie Island, across the Willamette River from the site.

- *Geology and Groundwater*

AGC is located in the Columbia River flood plain physiographic province of the Portland Basin, at an approximate elevation of 35 feet above mean sea level. The area geology is characterized by alluvium deposits to depths exceeding 200 feet before encountering cemented sand and gravel of the Troutdale formation.

The uppermost stratigraphic unit at the site consists of at least 10 feet of sand which transitions into a silty clay. Soil borings for the site, taken during installation of monitoring wells that were

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placed around the above ground fuel tank storage area in 1992, show dark grey silt or black sand down to about 16.5' bgs, where wood fragments were encountered. The borings, recorded in December of 1992 found shallow groundwater at 10 feet bgs. Groundwater flow direction in the monitoring wells has generally been to the west and northwest.

DEQ performed an updated review of available online Oregon Water Resources Department (OWRD) well records for wells in township 2 north, range 1 west, section 26, within which the site is located, and the five surrounding sections to the north, south and east – an area of 6 square miles. Well logs for areas to the west were not examined, since DEQ assumed that the Columbia River would form a hydraulic divide between shallow site groundwater and wells to the west.

There were five (5) domestic use-listed wells and no community wells found in the search. Several of the domestic use wells were cross-reference with older industrial wells and since a public water supply is available, are likely not used for drinking water. However, for conservatism, the site ranking assumes them as drinking water wells. There were 5 industrial and 3 irrigation use wells located in the search area.

AGC operates an industrial-use well that was established in 1963, which they state is cased to 150 feet below ground surface (bgs) and can provide 500 gallons-per-minute (gpm) of water. Water is used primarily for non-contact cooling water.

- *Soils*

USDA soil survey maps indicate that soils in the area are defined as Pilchuck-urban land - complex series, described as somewhat excessively drained.

The eastern one-quarter of the property is undeveloped and has been open and covered in grass since the property was developed around 1962. The septic drainfield is located in this area (as noted on Figure 3). Much of the western half of the property is packed gravel, and as is evident in several figures, covered with lime residue.

- *Hydrology and Surface Waters*

From the top of the bank along the west edge of the site, which is at about 35 feet asl, the bank slope drops sharply down to the Willamette River. Much of the site is not paved and AGC noted that much of their stormwater just percolates downward. There are several stormwater runoff control features on the site, as noted on Figure 3 and the site facility map presented on Figure 5.

A closer inspection of more recent aerial photographs (2007) does indicate an area along the northwest edge of the property where there does appear to be some spill-over of lightly colored, grayish material that has either drained or been pushes towards the river by what appears to be a small road. This feature is noted on Figure 4.

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The Willamette River is a local recreational resource that provides wildlife habitat and opportunities for small craft boating and fishing. This site is located within the Portland Harbor Study Area. Portland Harbor is an approximate 6.5 mile long reach of the lower Willamette River within Portland that is a listed Superfund site.

The Willamette River is listed as Critical Habitat for Upper Willamette River Chinook salmon (Federal and Oregon threatened), Lower Columbia River coho salmon (Fed. threatened; Oregon endangered) and Upper Willamette River steelhead (Fed. - threatened). For the reasons noted above, the Willamette River has been identified as a "Vulnerable Area" by DEQ.

Total precipitation in this area averages 36.3 inches each year.

Site History and Ownership

The Ash Grove Cement quicklime plant was established on the property in 1963, purchased from the Port of Portland. Its primary operation has been to receive limestone rock, kiln and grind it into "quicklime" (calcium oxide), and then ship it out.

DEQ reviewed historic aerial photographs provided from the U.S. Army Corps of Engineers (USACOE). A brief summary of significant observances from available aerials, from 1956 to 1995, that captured the property is provided below[1]:

1956: The property is undeveloped. A tank farm (currently known as Time Oil, ECSI #170) is present approximately 0.4 miles south of subject property.
1961: Photograph provided does not show subject property.
1963: Photograph of Ash Grove Cement plant, presumably after completion of plant construction. Notable features are - two apparent ditches that begin about midway of the north and south borders of the property. The properties to the north and south are vacant.
1967: Similar to 1963, with only notable difference being evident lime piles underneath the central and south conveyor systems.
1972 – Similar to 1972, but with addition of large AST (435,000-gallon) just east of kilns at AGC. Lime piles evident. A large warehouse like structure is present on the property to the south. It appears some initial construction is occurring at JR Simplot property to north. Buildings are also present to the northeast and east.
1980 – Similar to 1972 on AGC site, with addition of 25,000 gallon AST next to large AST. There is more development all around AGC property. JR Simplot to north appears to be fully built out. A new building to southeast is present.
1991 (image is infrared) – Similar to 1980.
1995 – There is no observable change from the 1991 aerial.

From their response to EPA Region 10's 104(E) letter, AGC summarized the site's history and major structures as follows:

"Ash Grove Cement Company has owned the Rivergate Plant premises since the April 1963 date of purchase. The first phase of the lime plant was constructed and operational by 1964. At that time, the

[1] Aerial photographs have been placed in DEQ's files and not provided as part of this report.

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facility consisted of a barge mooring structure for receiving raw materials (e.g., limestone); material unloading, transporting and stockpiling systems; two calcimatic kilns; one hydrator; bulk storage silos; a warehouse; and an office. A third calcimatic kiln was put into production in 1977. A new hydrator was installed in 2001. The calcimatic kilns and hydrator produced quicklime and hydrated lime for Ash Grove until June 1, 2006 when Ash Grove discontinued lime production and leased a portion of its product handling facilities (e.g., principally its storage silos and conveyors and its hydrating facilities) to an unaffiliated third party – Graymont Western US, Inc. (Graymont). "

It should be noted that the kilns and site "ag" (grinding) mills, have been fueled by several different sources over the years. Below are tables cut and paste from the 104(e) request that summarize the fuels used and periods of use:

TABLE 20-2. FUEL SOURCES FOR THE KILNS AT THE RIVERGATE FACILITY

Fuel Type	Year Fuel Use Began	Year Fuel Use Ceased
Natural Gas	1964	2006
Propane	1964	1974
Fuel Oil[30]	1964	2006
Coal	1982	1990
Landfill Gas	1998	2006

TABLE 20-3. FUEL SOURCES FOR THE AG MILLS AT THE RIVERGATE FACILITY

Fuel Type	Year Fuel Use Began	Year Fuel Use Ceased
Natural Gas	1985	Ongoing
Landfill Gas	2000	Ongoing

Investigation History

Prior inspections and environmental sampling investigations performed on the site have been documented in several other reports prior to this updated screening – which are summarized in the references appendix. Below is a summary of the significant remedial actions, investigations and inspections conducted for the site and evidence of contamination observed or measured.

AST Area Monitoring Well Sampling:
In 1993 three monitoring wells were installed around the above ground storage tanks (ASTs). These wells have been sampled several times since then as a "leak detection" system. Sampling has occurred in February and June of 1993, June of 1998, and October of 2006. The 2006 sampling was considered to be a final evaluation since the kilns had been shut down and the ASTs would not be needed to store fuel for powering the kilns.

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Detections of petroleum hydrocarbons, including volatile organic compounds and PAHs in groundwater occurred in both 1993 sampling events and in 2006. In October 2006 benzene was detected at 0.58 ppb and naphthalene at 0.1 ppb in groundwater – levels well below any applicable risk-based criteria, including Portland Harbor Joint Source Control Strategy (JSCS) screening level values for upland groundwater exposure for ecological receptors.

Overall, detections in October 2006 were generally below levels measured in 1993.

February 1990 Underground Storage Tank (UST) Decommissioning:
In February 1990, two 550-gallon gasoline USTs, located adjacent to the shipping/receiving building, were removed. Soil samples taken from the walls did indicate some petroleum contamination, but the highest concentration, 70 mg/kg (or parts-per-million, ppm) of total petroleum hydrocarbons (TPH) in soil was below the soil cleanup standard of 80 ppm for TPH.

The DEQ UST Program issued a no further action decision in June of 1991.

AGC Dredge Project – Sediment Sampling – September 1995:

Evaluation of Sediments from AGC dredge prism – In September 1995, AGC applied to the U.S. Army Corps of Engineers to dredge an area adjacent to its dock in the Willamette River. As part of the dredge permit process, AGC would also need to identify a disposal location, which required testing the sediments. The sediment "dredge prism" is shown on Figure 4, which presents the drawing submitted for the dredge area and a recent aerial photograph with the approximate dredge prism outlined. Samples from three locations within the dredge prism, a near surface (indicated by an "A") and bottom sample (indicated by "Z") were acquired. The surface sediment, C13-A was a composite of two samples. The bottom sediment, C123-Z was composited from three samples. Table 1 below summarizes the results from laboratory testing on the two sediment samples.

Table 1: 2005 AGC dredge prism sediment samples.

	C13-A (ppb)	C123-Z (ppb)	DEQ ERA SLV (ppb)
4,4'-DDE	5.4	2.9	1.5
4,4'-DDD	3.7	1.6	4
4,4'-DDT	2.5	1.2	4
Anthracene	150	14	57
Benzo(a)pyrene	2,200	50	32
Benzo(k)flouranthene	610	18	27
Chrysene	2,200	61	57
Dibenz(a,h)anthracene	240	8.2	33
Indeno(1,2,3-cd)pyrene	1,400	43	17
Phenanthrene	500	64	42
Total PCBs	224	54	34

KEY: yellow highlight – exceeds applicable SLV; "SLV" – screening level value; "- - " = compound not analyzed in sample; nd = not detected, with detection limit noted by "<"; ne = no screening value established.

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The sediment data shows that the upper sediments were more contaminated than sediments near the bottom of the dredge prism profile. Total PCBs and several PAHs were one order of magnitude or more than their screening level value.

DEQ Site Assessment Site Visit – November 2006:
DEQ Northwest Region Site Assessment visited the site in November of 2006 and walked the site with the Environmental Manager. The DEQ personnel walked the areas to evaluate potential areas where site stormwater runoff might enter the Willamette River and the area around the pier. No obvious runoff areas were observed. From the top of the river bank, DEQ observed the area around a discharge pipe (referred to as Outfall 001) located near the southwestern corner of the site and did not observe indications of site runoff - which would have resembled the white quicklime evident over much of the western half of the property.

Potential Contamination Sources

DEQ has identified several potential contamination sources on the site:

A. Quick lime: The potential for high-pH quicklime to discharge to the River is apparently low based on observations by Ash Creek records and good performance under their Industrial discharge permit. However, records do show that some lime has been released into the shore area over the period of the site's operation. In addition, recent aerial photographs (see Figure 4) indicate an area of discharge from the site in the northeast corner.

B. Above-ground Fuel Storage Area – Groundwater monitoring in the AST area has measured releases of petroleum contamination. The concentrations are below DEQ risk-based values applicable to the site. Since large volumes of fuel are no longer stored in this area, the overall risk is considered low.

Contaminant Pathways and Threats

Soil – The site is covered in quick lime, but there are only a few minor instances documented in Ash Grove Cement's records of exposure to material.

DEQ's review of site records did show several spills and contamination in soil from a decommissioned UST nest and in the AST area. However, remedial actions taken to respond to the noted incidents, and the low levels of contamination measured in the UST and AST do not indicate that there is any significant soil contamination present on the site.

Groundwater – There were only a few domestic use water supply wells listed in the Oregon Water Resources well log database within 1-2 miles of the site. Due to the sites' proximity to the Willamette River DEQ believes that shallow groundwater most likely drains via seepage into the river. Since there were no major releases to groundwater documented in our research, DEQ concludes that the potential threat to any groundwater used as drinking water is low.

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Surface waters – Potential discharge of contaminated stormwater runoff from the site appears has occurred periodically, but rarely – there are three documented instances. DEQ does recommend that the area in the northwest corner of the site should be examined more closely based on our review of recent aerial photographs.

The measured contaminant concentrations in the dredge prism area alongside the AGC pier are at levels that pose a threat to aquatic species, but the exact source or sources is not yet known.

Summary and Conclusions

There are only a couple of areas where suspected or potential hazardous substances are stored on the AGC site. The primary water quality concern is from quick lime discharge to the Willamette River.

DEQ's review did not find any specific source area or discharge point that directly links the site to the contaminants found in the dredge prism.

The primary exposure pathway of concern is aquatic species exposure to sediments possibly contaminated by runoff.

Recommendations

Since this site is adjacent to the Willamette River, DEQ recommends further investigation of the shoreline area, discharge points from AGC, such as the northwest corner, and sediments around the dredge prism area to determine: (a) the extent of dredge contaminants and possible sources; and (b) areas of suspected quicklime discharge. Since the site is within the Portland Harbor Study Area DEQ believes that further investigation in this area is warranted.

This site is listed on DEQ's ECSI database, as site #4696. Since no specific release has been found and the dredge prism contaminants cannot be directly sourced to the site itself, the site will not be added to DEQ's Confirmed Release List and Inventory of sites requiring further investigation and/or cleanup.

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FIGURES

Figure 1: Site location on USGS topographic map of site in north Portland, Oregon.

Figure 2: AGC property 2007 aerial photograph of site with nearby land use identified.

Figure 3: AGC property 2007 aerial photograph with site features noted.

Figure 4: Annotated photograph of shore area along west side of AGC property, with stormwater runoff discharge channels highlighted.

Figure 5: Detailed site diagram provided by Ash Grove Cement.

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References

1. Ash Grove Cement Company, "Response to EPA's 104(e) First Request for Information, Ash Grove Cement Company, Portland Harbor Superfund Site," October 2008 (and several Attachments)

2. Parsons Brinckerhoff, Integral Consulting Inc., "Sediment Data Report, Ash Grove Cement Company, Willamette River, Portland, Oregon," September 19, 2005.

3. Oregon Department of Fish and Wildlife (ODFW), "Fish Distribution/Habitat Maps", URL: http://osu.orst.edu/dept/nrimp/information/fishdistmaps.htm, Updated in February 2001.

4. Oregon Department of Human Services, DHS Environmental Toxicology Program, Fish Consumption Advisories – Consumption Guidelines.
URL: http://oregon.gov/DHS/ph/envtox/fishconsumption.shtml.

5. Oregon Division of State Lands (DSL), "Essential Salmon Habitat"; http://oregonstatelands.us/DSL/PERMITS/esshabitat.shtml; July 2008.

6. City of Portland, Corporate Geographic Information System (CGIS) database, http://www.cgis.ci.portland.or.us/main.cfm, April 2008.

7. United States Geological Survey (USGS), "Geology of Portland, Oregon and Adjacent Areas, Geological Survey Bulletin 1119", D. E. Trimble, US Government Printing Office, Washington, 1963.

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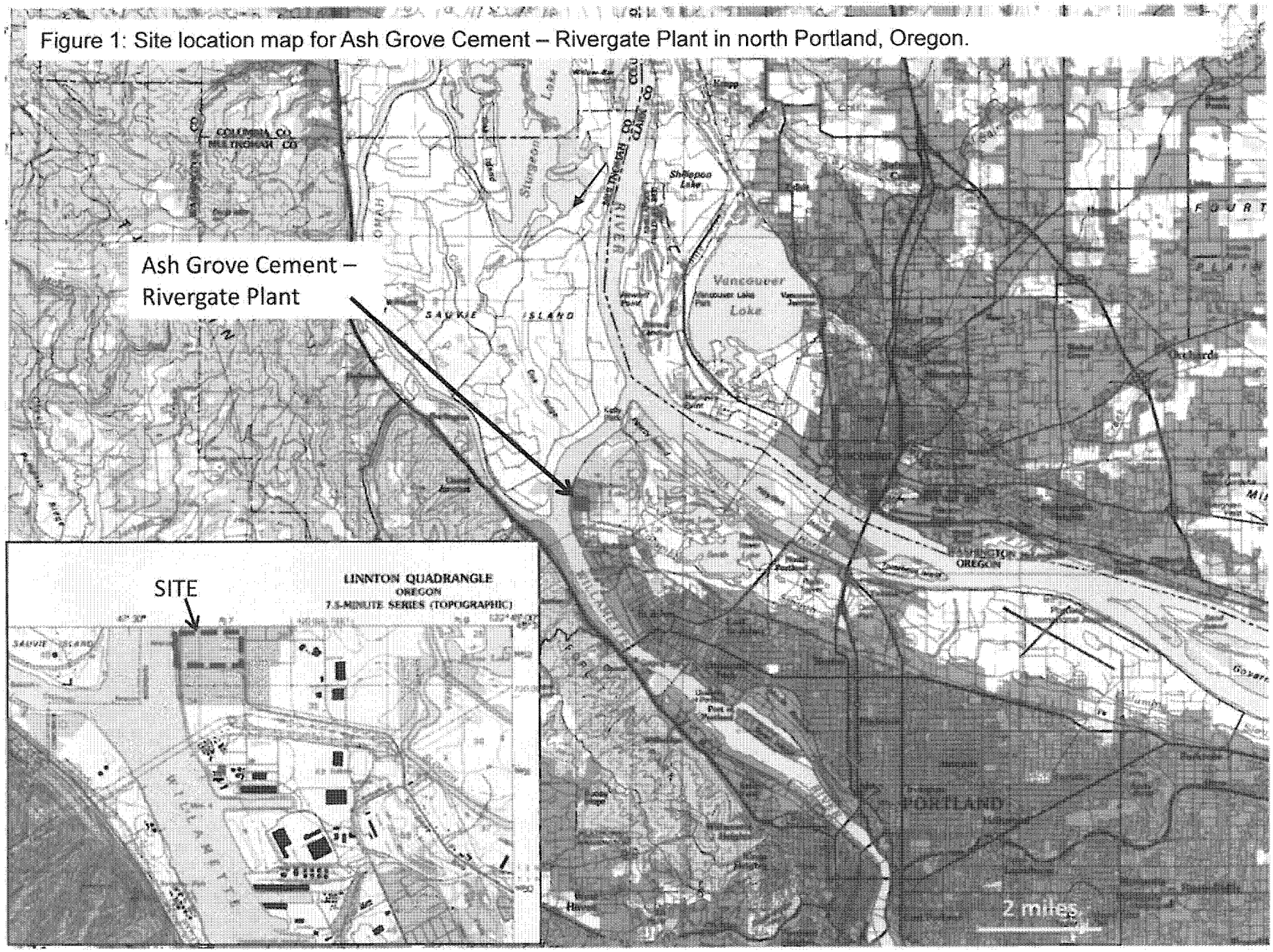
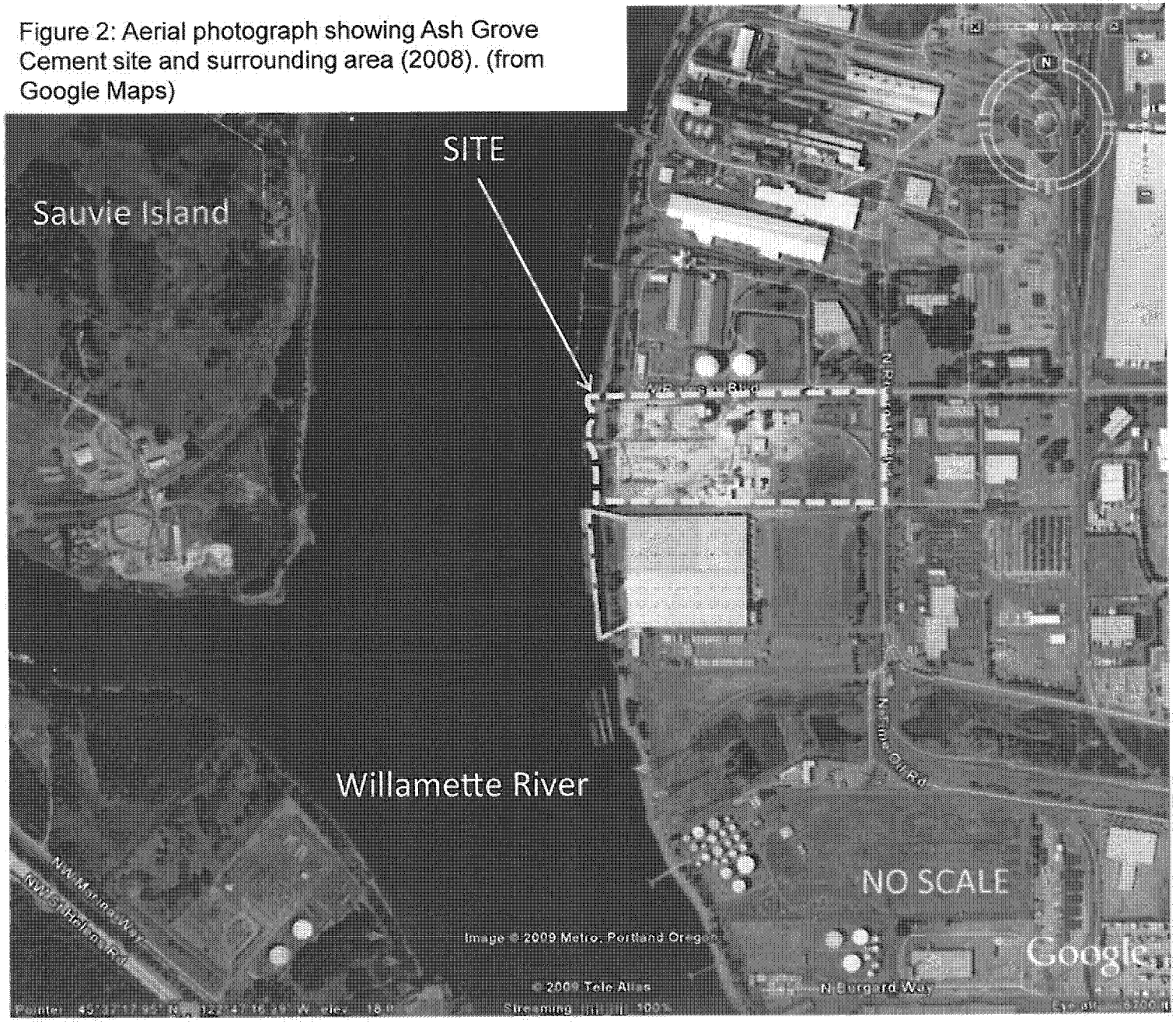
Figure 1: Site location map for Ash Grove Cement – Rivergate Plant in north Portland, Oregon.



AGC0012392

Figure 2: Aerial photograph showing Ash Grove Cement site and surrounding area (2008). (from Google Maps)



AGC0012393

Figure 3: Aerial photograph showing Ash Grove Cement site and site features. (2008 from Google Maps)

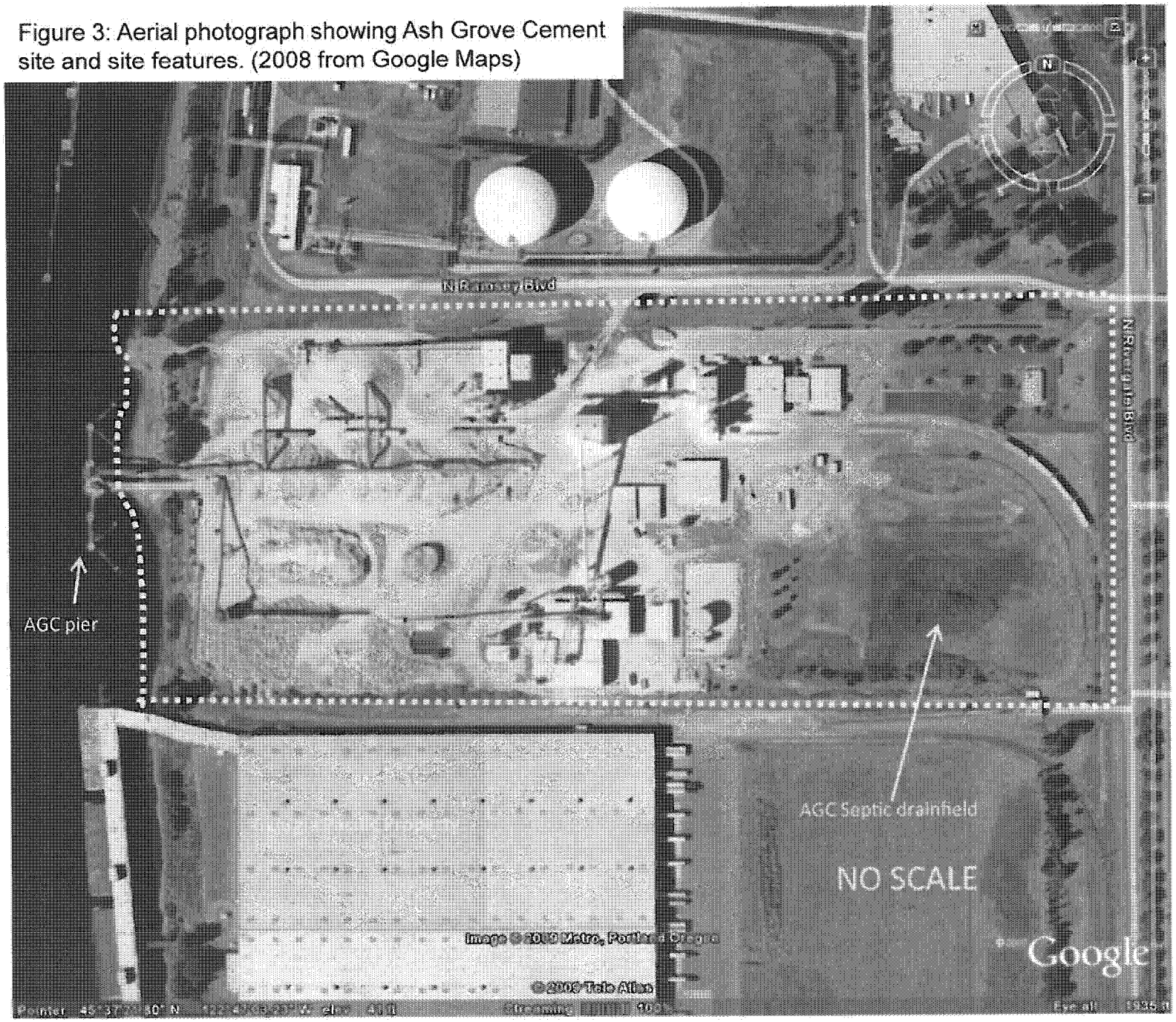


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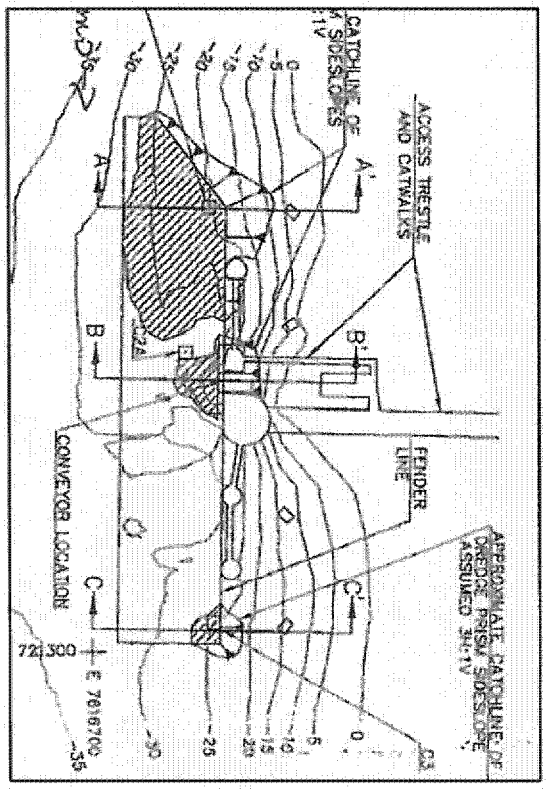
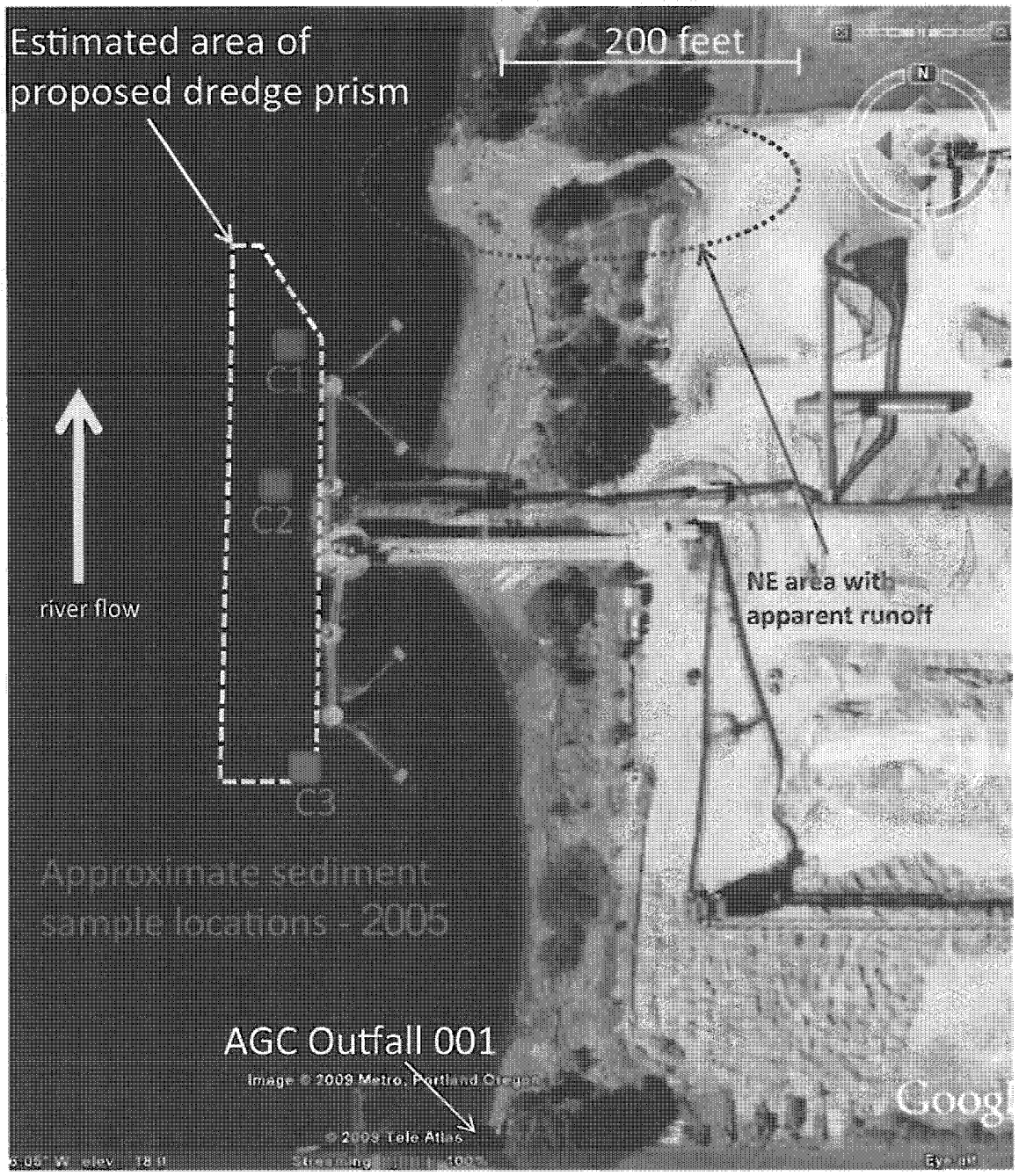
Figure 4: Aerial photograph showing river area of Ash Grove Cement site and 1995 dredge prism area. (2008 from Google Maps)

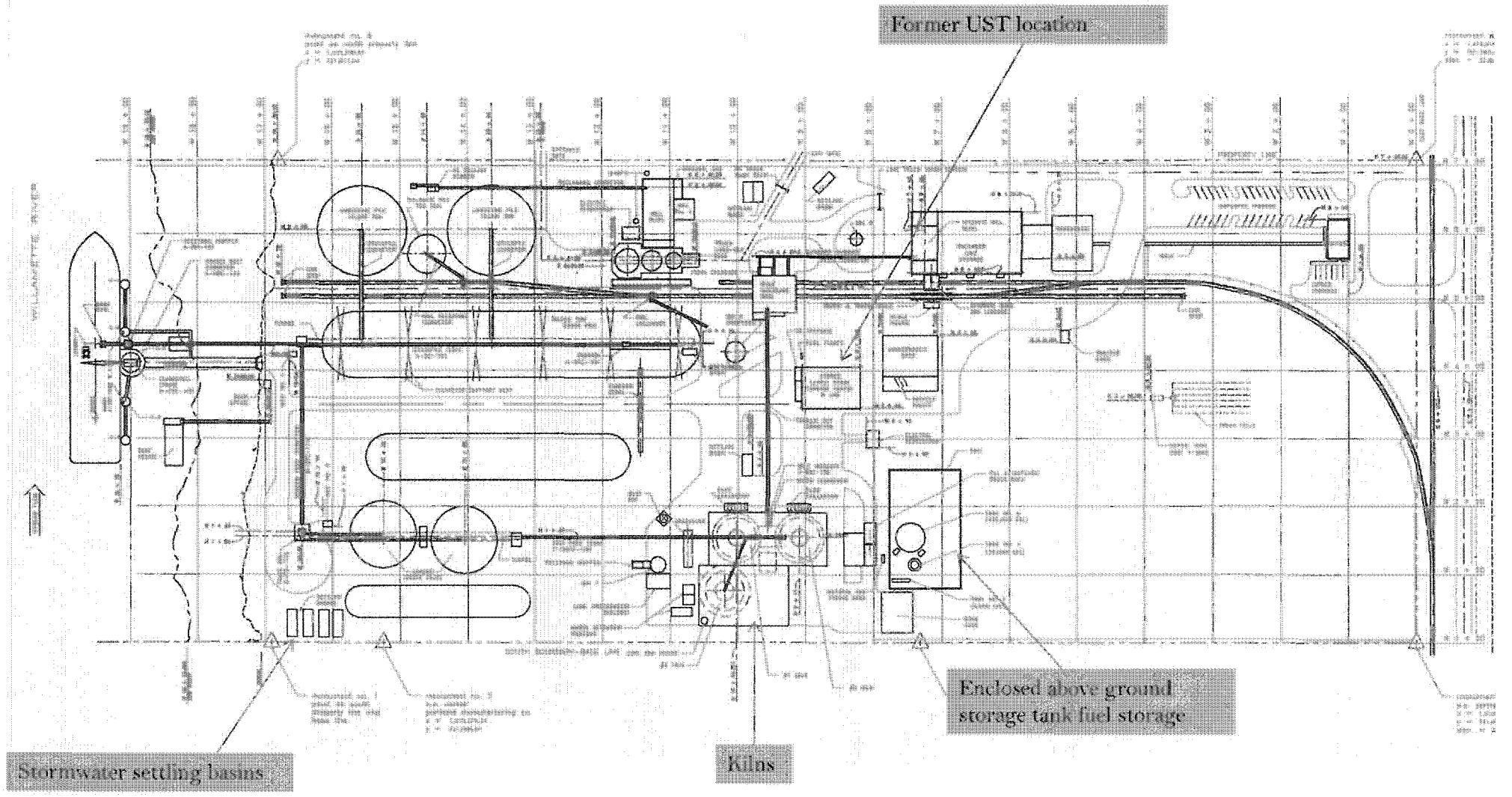


Dredge prism and sample locations – excerpt from 2005 Sediment Data Report



AGC0012395

Figure 5: Detailed AGC-Rivergate Plant site operations drawing supplied to DEQ by Ash Grove Cement. Certain features highlighted by green boxes.



AGC0012396

Prepared for:

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Sediment Characterization Report

Ash Grove Cement
Rivergate Facility Portland, Oregon

Prepared by:

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Project Number: PNG0580

December 17, 2013

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Appendix B: ALS Environmental Data Packages – Phase 2

AGC0012399

1.0 INTRODUCTION

This Sediment Characterization Report (SCR) presents the results of the sediment collection and analytical testing effort to delineate petroleum-related compounds including polycyclic aromatic hydrocarbon (PAH) concentrations in sediments at Ash Grove's Rivergate Facility (Site) (Figure 1).

As part of the Portland Harbor Superfund Site Remedial Investigation (RI), the Lower Willamette Group (LWG) collected sediment samples in 2007 near the Site (Figure 2). At one location, (LW3-G609) the LWG reported total PAHs of 240 milligrams per kilogram (mg/kg) in the surface (0 to 25 cm) sediment. The LWG collected subsurface sediment samples (LW3-C609 – collocated with LW3-G609) at three depth intervals; 30 to 151 cm (1 to 5 ft), 151 to 273 cm (5 to 9 ft), and 273 to 311 cm (9 to 10 ft). Results showed decreasing PAHs with depth with concentrations of 13, 11, and 0.32 mg/kg (Figure 2).

The analytical data results from this sediment characterization project were used to delineate the extent of PAHs detected in Site sediments at Ash Grove's Rivergate Facility.

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2.0 SAMPLE COLLECTION AND HANDLING PROCEDURES

The Ash Grove Rivergate Facility is located in the Rivergate Industrial Park. The address is 13939 Rivergate Road, Portland, Oregon 97203. The Rivergate Facility is 29.61 acres and is located on the Willamette River between river miles (RMs) 2.7 and 2.9 (Figure 1).

The following sections describe the procedures and results of the sediment sampling program.

2.1 Sample Design Rationale

Sediment sampling at the Site was performed in two phases. Phase 1 included surface and subsurface sampling and was performed on August 14 and 15th, 2013. Phase 2 included surface sampling only and was performed on October 18, 2013.

Phase 1 sampling was designed to spatially delineate petroleum-related compounds in both surface (0 to 30 cm) and subsurface (30 to 90 cm) sediments near the Rivergate Facility dock at which elevated concentrations of PAHs were found in the 2007 LWG sediment sample, LW3-609, (Figure 2).

Phase 2 sampling was designed to collect surface sediment in the nearshore area to characterize for PAHs.

2.2 Collection and Processing of Sediment Samples

During Phase 1, a total of 15 sample locations were targeted for sediment collection (Figure 3). Surface sediment was collected from 0 to 30 cm (Table 1) at all 15 of the locations. This depth is consistent with the surface sediment depth collected for the Portland Harbor RI. In addition to the 15 surface samples, seven of the 15 locations collected subsurface sediment from 30 to 90 cm (Figure 3).

During Phase 1, a total of 22 individual sediment samples were collected and submitted to ALS Environmental, Kelso, WA for analysis of constituents of potential concern (i.e., conventionals, total petroleum hydrocarbons, and PAHs). Additionally, two discrete sediment samples from two separate subsurface sample locations (AG-C-01 and AG-G-03) were submitted for PAH analysis based on field observations. The analytical report from ALS for Phase 1 is presented in Appendix A.

Phase 1 sediment samples were collected using a diver-assisted core sampler. For surface sediment sample locations, a 1.5-foot long core tube was used. For subsurface

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sediment sample locations, a 3.5-foot long core tube was used. The subsurface core sampler was penetrated to a minimum depth of 90 cm below the mudline.

The diver-assisted core collected sediment by penetrating a 4-inch-diameter aluminum barrel down into the sediment. A catcher connected to the bottom of the barrel retained the sediment in the barrel as the sample was brought on board the sampling vessel and evaluated for sample acceptance. Sample recovery was evaluated relative to the following acceptance criteria:

1. Overlying water was present and the surface was intact.

2. Calculated compaction was not greater than 30 percent.

3. The core tube appeared intact without obstruction or blocking.

Sediment cores were processed immediately on the sampling vessel. To determine the most accurate depths for subsampling and compositing, compaction corrections were applied to the cores during logging and processing. The compaction correction is the length of sample recovery divided by the length of core penetration. Typically, sampling-induced compaction of the sediments will cause the recovery to be less than the total penetration. During logging and processing, the sample length was determined by dividing the actual recovery depth by the compaction correction factor. Subsurface sediment sample lengths and percent recoveries are presented on Table 2.

Core processing included documenting sediment layers, observations of sheens and/or odors, presence of petroleum-like material, presence of macroinvertebrates, sediment texture, color, moisture content, and preliminary soil classification. Each individual sediment depth interval, 0 to 30 cm and 30 to 90 cm, designated for chemical analysis was transferred to a decontaminated, stainless steel bowl. Sediment was homogenized with a stainless steel spoon until the sample was of uniform color and texture. Large debris (e.g., rocks, shells) was removed, as necessary.

During Phase 2, a total of three surface sediment samples were collected in the nearshore area (Figure 3). At each location sediment was collected from 0 to 30 cm with a clean, stainless steel spoon. Sediment was placed in a clean, stainless steel bowl, homogenized until the sample was of uniform color and texture. Large debris (e.g., rocks, shells) was removed, as necessary, and remaining sediment was transferred into decontaminated, laboratory-supplied jars. The three Phase 2 sediment samples were submitted to ALS Environmental for analysis of PAHs only. The analytical report from ALS for Phase 2 is presented in Appendix B.

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All positioning, equipment decontamination, and sample transport and chain of custody procedures were followed in accordance with standard sediment sampling protocols as presented in Corps et al., 2009.

A summary of surface and subsurface sediment sample positioning, coordinates, sampling dates, and mudline elevations are presented in Tables 1 and 2. Grain size percentages, total organic carbon, and total solids are presented in Table 3. The results of the sediment chemical analyses are presented in Tables 4 and 5 and discussed below in Section 3.0.

2.3 Sample Identification Scheme for Surface and Subsurface Sediments

Each surface and subsurface sediment sampling location was assigned a unique alphanumeric location identification (ID) number. The first two characters of the location ID are "AG" identifying the Ash Grove project area. The next character is to indicate the type of sample to be collected (e.g., "G" for surface grab sample or "C" for core sample), followed by a consecutive number identifying the specific location.

The subsurface sediment samples include the two depth intervals; surface and subsurface. Therefore, the each depth range (0 to 30 cm and 30 to 90 cm) is included in the sample name. For example, a subsurface sediment sample from AG-C-07 from the 30 to 90 cm depth interval was labeled "AG-C-07 30-90."

Phase 2 surface samples were assigned an identification number by using the character "AG" for identifying samples in the Ash Grove project area. The last characters in each sample include the number identifying the specific location and sampling date, e.g. "#-101813." Therefore, the surface sample from AG-01 collected October 18, 2013 was labeled "AG-01-101813."

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3.0 SEDIMENT RESULTS AND DISCUSSION

This section discusses the chemical testing results.

The 2013 sediment sampling was designed to delineate total PAHs around the LWG RI sample LW3-609 at the surface and to a depth of 90 cm below the mudline. Additionally, the sampling event was designed to collect surface sediment in the nearshore area to characterize for PAHs.

PAHs were detected in LWG RI surface sample LW3-G609 at 240 mg/kg (Sample collected November 28, 2007, after the Ash Grove 2007 dredging event). The LWG collected subsurface sediment samples (LW3-C609) at three depth intervals; 30 to 151 cm (1 to 5 ft), 151 to 273 cm (5 to 9 ft), and 273 to 311 cm (9 to 10 ft) (samples collected December 12, 2007). Results showed decreasing PAHs with depth with concentrations of 13, 11, and 0.32 mg/kg (Figure 2).

3.1 Delineation of PAHs for Sediment Results

Sample locations AG-C-01 and AG-C-02 are generally co-located with LW3-609. These two locations bound LW3-609 to the east and west, respectively (Figure 3). Total PAHs were detected in the surface at both locations (0.57 and 0.58 mg/kg, respectively) (Figure 4); however, at a significantly lower concentrations than LW3-G609 (240 mg/kg).

Total PAHs reported in the 2013 subsurface sample AG-C-01 30-90 was 15.4 mg/kg, which is elevated compared to the surface result; however, this concentration is well below the LW3-G609 total PAH concentration. The reported total PAH concentration of 15.4 mg/kg is comparable with the reported total PAH concentration of 13 mg/kg in the LW3-C609 sample at a depth of 30 to 151 cm. At approximately 45 cm depth below the mudline a sand lens and sheen was observed at AG-C-01. A discrete sample was collected, AG-C-01 45, and analyzed for PAHs. The reported total PAH concentration for AG-C-01 45 was 1.79 mg/kg (Table 4).

Subsurface sample AG-C-02 30-90 reported total PAHs at 4.14 mg/kg (Table 4, Figure 5), which is slightly elevated compared to the surface result; however, this concentration is well below the LW3-G609 PAH concentration of 240 mg/kg as well as the PAH concentration of 13 mg/kg in the 30 to 151 cm depth interval.

Other sample locations in the vicinity of LW3-609 are AG-C-04 and AG-C-06. These two locations bound LW3-609 to the north (downstream) and to the south (upstream) (Figure 3). Similar to locations AG-C-01 and AG-C-02, PAHs were detected at lower

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concentrations in the surface compared to corresponding subsurface concentrations (Table 4). The surface PAH concentrations for AG-C-04 and AG-C-06 are slightly higher than AG-C-01 and AG-C-02; however, they are both significantly lower concentrations than measured at LW3-G609 (Table 4, Figure 4). Subsurface total PAHs for AG-C-04 and AG-C-06 are similar to AG-C-02 with total PAHs at approximately 4 mg/kg, well below the LW3-C609 total PAH concentration of 13 mg/kg.

During the processing of surface sample collected at location AG-G-03, a petroleum-like odor and sheen with "tar-like" material was observed. Analytical results reported a total PAH concentration of 336.46 mg/kg (Table 4, Figure 4). AG-G-03 is located approximately 120 feet north, northwest of LW3-609 towards the eastern shoreline. Based on the observations of "tar-like" material in the surface sample, a subsurface sample was collected to characterize PAHs at depth. During processing of subsurface sample AG-G-03 30-90 a petroleum-like odor and sheen with "tar-like" material was also observed. Two sample intervals were collected from the subsurface of AG-G-03; one representing a composite from 30 to 90 cm and another representing a composite from 70 to 90 cm. The latter sample was labeled AG-G-03 70-90. Total PAH concentrations for AG-G-03 30-90 and AG-G-03 70-90 are 27.62 and 45.27 mg/kg, respectively (Table 4).

At sample location AG-C-03, which is located northwest (downstream) of LW3-609, total PAH concentrations in the surface were 1.03 mg/kg and in the subsurface at 1.38 mg/kg (Table 4). Downstream of AG-C-03 a surface sample was collected from AG-G-01 and total PAHs were detected at 0.68 mg/kg (Table 4, Figure 4). These two sample locations and their low PAH concentrations delineate the extent of PAHs north of the Ash Grove dock and westerly towards the Federal Navigation Channel.

At sample location AG-C-05, located east of AG-C-01 and at the north end of the Ash Grove dock, total PAHs were detected in the surface at 0.58 mg/kg and in the subsurface at 3.05 mg/kg (Table 4). The surface and subsurface PAH concentrations at AG-C-05 delineate the extent of PAHs to the south of AG-G-03 as well as east of AG-C-01.

Surface sample location AG-G-09 is located west of the Ash Grove dock and was the southernmost (upstream) sample collected. Total PAHs were detected at 0.75 mg/kg (Table 4, Figure 4). Surface sample locations AG-G-06, AG-G-07, and AG-G-08 are located in between the eastern shoreline and the Ash Grove dock (Figure 4). Total PAHs for AG-G-06, AG-G-07, and AG-G-08 are 0.2, 0.22, and 0.15 mg/kg, respectively (Table 4). Data from these four surface sample locations, in addition to AG-G-05, and

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delineate the extent of PAHs to the south and southeast by bounding elevated PAHs detected at locations AG-C-01 and AG-G-03.

Surface sample locations AG-G-02, AG-G-04, and AG-G-05 surround sample location AG-G-03 to the north, northeast, and east, respectively (Figure 4). Total PAHs concentrations at surface sample locations AG-G-02, AG-G-04, and AG-G-05 were 2.09, 0.97, and 0.01 mg/kg, respectively (Table 4, Figure 4). These three sample locations and their low PAH concentrations delineate the extent of PAHs to the north and east by bounding elevated total PAHs detected at location AG-G-03.

Phase 2 surface sample locations, AG-01 101813, AG-02 101813, and AG-03 101813, further delineate the extent of PAHs to the east of AG-G-03 as these three locations detected total PAHs at 0.01, 0.07, and 0.09 mg/kg, respectively (Table 4, Figure 4).

3.2 Conclusions

Figure 6 presents the total PAHs at both the surface and subsurface (if analyzed) for each sample location. The surface and subsurface results show that total PAHs are elevated at AG-G-03, which is located north (downstream) of the Ash Grove dock. The total PAHs in surface samples surrounding this location are extremely low compared to AG-G-03 (336.5 mg/kg). The highest total PAH concentration in a surface location surrounding AG-G-03 was 2.09 mg/kg at AG-G-02, which is north (downstream) of AG-G-03 (Figure 6).

Subsurface total PAHs are generally higher than their corresponding surface PAH concentrations with the exception of AG-G-03 (Figure 6). Total PAHs were slightly elevated at AG-C-01 30-90 (15.4 mg/kg); however, the surrounding subsurface total PAHs were generally three times lower than the detected concentration at AG-C-01 30-90. The subsurface total PAHs at AG-G-03 is the highest detected PAH concentrations compared to the other six locations (Figure 6).

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4.0 REFERENCES

Corps et al., 2009. Northwest Regional Sediment Evaluation Framework. May 2009.

Environmental Protection Agency (EPA) 2001. EPA Methods for Collection, Storage, and Manipulation of Sediment for Chemical and Toxicological Analyses: Technical Manual. Office of Water. EPA 823-B-01-002.

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TABLES

Table 1 - Surface Sediment Sample Locations, Coordinates, and Mudline Elevations
Ash Grove Cement Company - Rivergate Facility
Portland, Oregon

Sample Location ID	Sample Date	Latitude	Longitude	Approximate Mudline Elevation (MLLW)
		Oregon State Plane - North Zone - NAD 83 - Feet		
Phase 1				
AG-G-01	8/14/2013	45.6237	-122.7884	-29.68
AG-G-02	8/14/2013	45.6236	-122.7881	-19.77
AG-G-03	8/14/2013	45.6235	-122.7880	-19.72
AG-G-04	8/14/2013	45.6237	-122.7879	-9.90
AG-G-05	8/14/2013	45.6235	-122.7878	-4.81
AG-G-06	8/14/2013	45.6232	-122.7882	-7.94
AG-G-07	8/14/2013	45.6231	-122.7879	-11.96
AG-G-08	8/15/2013	45.6231	-122.7878	-8.10
AG-G-09	8/15/2013	45.6230	-122.7882	-31.42
Phase 2*				
AG-01-101813	10/18/2013	45.6237	-122.7875	--
AG-02-101813	10/18/2013	45.6222	-122.7887	--
AG-03-101813	10/18/2013	45.6222	-122.7874	--

Notes:
MLLW - Mean Lower Low Water
* = Phase 2 samples were collected during a low tide and accessed by land. No water depth was available.

Table 2 - Subsurface Sediment Sample Locations, Coordinates, Mudline Elevations, and Core Intervals
Ash Grove Cement Company - Rivergate Facility
Portland, Oregon

Sample Location ID	Sample Date	Latitude	Longitude	Approximate Mudline Elevation (MLLW)	Approximate Core Penetration Elevation (MLLW)	Approximate Core Sample Length (ft) (Penetration)	Approximate Mudline Elevation (MLLW) (Penetration)
		Oregon State Plane - North Zone - NAD 83 - Feet					
AG-C-01	8/15/2013	45.6233	-122.7882	-25.27	3.5	2.8	-28.07
AG-C-02	8/15/2013	45.6233	-122.7884	-35.28	3.5	3.0	-38.28
AG-C-03	8/14/2013	45.6235	-122.7884	-31.88	3.0	2.4	-34.28
AG-C-04	8/14/2013	45.6234	-122.7882	-28.60	3.0	2.2	-30.80
AG-C-05	8/14/2013	45.6233	-122.7880	-26.20	3.0	2.3	-28.50
AG-C-06	8/15/2013	45.6232	-122.7877	-27.32	3.5	2.5	-29.82
AG-G-03*	8/15/2013	45.6235	-122.7880	-21.64	3.0	2.7	-24.34

Notes:

MLLW - Mean Lower Low Water

* AG-G-03 was originally proposed as a surface sample location only; however, based on the observation of "tar-like" material in the surface sample, a subsurface sample was collected to characterize PAHs at depth.

Table 3 - Sediment Grain Size and Conventionals
Ash Grove Cement Company - Rivergate Facility
Portland, Oregon

Sample ID	% Sand/Gravel	% Silt/Clay	Material Description	Carbon, Total Organic (TOC)	Total Solids
AG-C-01 0-30	11.77	88.23	Slighty sandy, Silt	2.45	43.4
AG-C-01 30-90	21.28	78.72	Sandy, Silt	1.81	43.1
AG-C-02 0-30	19.82	80.18	Slightly sandy, Silt	2.16	47.3
AG-C-02 30-90	13.2	86.8	Slightly sandy, Silt	1.99	52.6
AG-C-03 0-30	13.43	86.57	Slightly sandy, Silt	2.5	41.8
AG-C-03 30-90	24.33	75.67	Sandy, Silt	2.03	50.2
AG-C-04 0-30	22.88	77.12	Sandy, Silt	1.58	55.1
AG-C-04 30-90	14.8	85.2	Slightly sandy, Silt	1.99	55.7
AG-C-05 0-30	86.11	13.89	Silty Sand	0.518	79.8
AG-C-05 30-90	70.12	29.88	Slighty silty Sand	0.867	68.9
AG-C-06 0-30	23.39	76.61	Sandy, Silt	2.19	46.6
AG-C-06 30-90	17.51	82.49	Slightly sandy, Silt	1.93	54.6
AG-G-03 30-90	24.47	75.53	Sandy, Silt	2.31	55.5
AG-G-01	10.11	89.89	Slightly sandy, Silt	2.56	42.4
AG-G-02	15.03	84.97	Slightly sandy, Silt	2.12	47.3
AG-G-03	20.78	79.22	Slightly sandy, Silt	2.72	45.4
AG-G-04	98.38	1.62	Sand	0.371	77
AG-G-05	43.6	56.4	Sandy, Silt	0.937	63
AG-G-06	80.86	19.14	Slightly silty, Sand	0.27	70.7
AG-G-07	94.93	5.07	Sand	0.267	78.1
AG-G-08	97.56	2.44	Sand	0.147	83.9
AG-G-09	43.33	56.67	Sandy, Silt	1.68	54.5

Table 4 - Sediment Results - Polycyclic Aromatic Hydrocarbons
Ash Grove Cement Company - Rivergate Facility
Portland, Oregon

		PHASE 1																						PHASE 2		
PAH GROUP	Constituent	AG-C-01 0-30	AG-C-01 30-90	AG-C-01 45	AG-C-02 0-30	AG-C-02 30-90	AG-C-03 0-30	AG-C-03 30-90	AG-C-04 0-30	AG-C-04 30-90	AG-C-05 0-30	AG-C-05 30-90	AG-C-06 0-30	AG-C-06 30-90	AG-G-01	AG-G-02	AG-G-03	AG-G-03 30-90	AG-G-03 70-90	AG-G-04	AG-G-05	AG-G-06	AG-G-07	AG-G-08	AG-G-09	AG-01-101813	AG-02-101813	AG-03-101813
LPAH	2-Methylnaphthalene	0.006	0.17	0.034	0.0062	0.1	0.0097	0.011	0.043	0.048	0.0051	0.046	0.022	0.076	0.0044 J	0.033	0.49 D	0.42 D	0.51 D	0.012	0.00054 J	0.0005 J	0.0017 J	0.00084 J	0.0068	0.00048 J	0.0041	0.0018 J
LPAH	Acenaphthene	0.006	0.49	0.068	0.011	0.23	0.0075	0.019	0.12	0.14	0.006	0.045	0.02	0.26	0.0063	0.046	12 D	1.8 D	2.9 D	0.022	0.00076 U	0.0033 J	0.0036	0.00076 U	0.015	0.00076 U	0.00076 U	0.00076 U
LPAH	Acenaphthylene	0.006	0.12	0.016	0.0074	0.031	0.0087	0.0099	0.0094	0.025	0.0043	0.026	0.013	0.036	0.0061	0.012	2 D	0.23 DX	0.35 Ui	0.0022 J	0.00059 U	0.0016 J	0.0014 J	0.00059 U	0.0052	0.00059 U	0.00086 J	0.00059 U
LPAH	Anthracene	0.012	0.48	0.046	0.012	0.089	0.027	0.023	0.037	0.14	0.0074	0.052	0.031	0.19	0.012	0.28	21 D	1.4 D	4.2 D	0.024	0.00058 U	0.0016 J	0.0054	0.0015 J	0.018	0.00058 U	0.0022 J	0.0013 J
LPAH	Dibenzofuran	0.0033 J	0.089 X	0.016	0.005 J	0.058	0.0057 J	0.0065	0.02	0.028	0.0014 J	0.011 X	0.012	0.055 X	0.0038 J	0.02	1.1 Ui	0.4 D	1.3 Ui	0.0096	0.00063 U	0.00063 U	0.0035	0.0012 J	0.0064	0.00063 U	0.0016 J	0.00079 J
LPAH	Fluoranthene	0.071	1.9	0.24	0.078	0.61	0.16	0.2	0.21	0.6	0.036	0.37	0.21	0.56	0.11	0.24	45 D	3.1 D	3.9 D	0.12	0.00098 U	0.038	0.038	0.034	0.13	0.00098 U	0.0065	0.014
LPAH	Fluorene	0.0072	0.41	0.045	0.01	0.15	0.015	0.015	0.1	0.12	0.0031 J	0.025	0.026	0.19	0.0074	0.048	12 D	1.7 D	3.9 D	0.019	0.00061 U	0.00095 J	0.0049	0.001 J	0.016	0.00061 J	0.001 J	0.00067 J
LPAH	Naphthalene	0.012	0.2	0.056	0.014	0.17	0.014	0.024	0.051	0.059	0.0084	0.097	0.031	0.09	0.0089	0.035	0.72 D	0.59 D	0.61 D	0.0062	0.00091 J	0.0014 J	0.0025 J	0.0014 J	0.014	0.0013 J	0.0049	0.0018 J
LPAH	Phenanthrene	0.037	3.4 D	0.26	0.053	0.64	0.079	0.095	0.32	0.92	0.027	0.33	0.13	1	0.04	0.17	100 D	7.6 D	13 D	0.073	0.0014 U	0.029	0.026	0.011	0.073	0.0014 U	0.0069	0.0046
HPAH	Benz(a)anthracene	0.037	0.95	0.095	0.032	0.21	0.067	0.096	0.062	0.19	0.06	0.18	0.078	0.24	0.038	0.12	17 D	1.2 D	2 D	0.1	0.00072 U	0.014	0.011	0.0073	0.044	0.00072 U	0.0028	0.0045
HPAH	Benzo(a)pyrene	0.054	0.92	0.12	0.052	0.24	0.072	0.13	0.072	0.25	0.069	0.26	0.11	0.25	0.057	0.14	14 D	0.95 D	1.3 D	0.095	0.00076 U	0.012	0.0098	0.0069	0.05	0.00076 U	0.0036	0.005
HPAH	Benzo(b)fluoranthene	0.058	0.79	0.12	0.052	0.23	0.094	0.15	0.074	0.21	0.079	0.23	0.12	0.24	0.071	0.19	10 D	0.82 D	0.97 D	0.13	0.00092 U	0.011	0.019	0.018	0.06	0.00092 U	0.0053	0.011
HPAH	Benzo(g,h,i)perylene	0.048	0.66	0.11	0.05	0.21	0.059	0.099	0.066	0.23	0.043	0.25	0.093	0.2	0.049	0.1	8.9 D	0.75 D	0.88 D	0.048	0.00085 U	0.0096	0.011	0.0042	0.045	0.00085 U	0.0085	0.0056
HPAH	Benzo(k)fluoranthene	0.022	0.26	0.042	0.017	0.084	0.034	0.054	0.025	0.074	0.028	0.079	0.043	0.09	0.026	0.07	3.6 D	0.26 D	0.27 D	0.045	0.00087 U	0.004	0.0068	0.0062	0.024	0.00087 U	0.0019 J	0.0042
HPAH	Chrysene	0.056	1.1	0.12	0.049	0.28	0.15	0.13	0.087	0.27	0.067	0.21	0.12	0.28	0.07	0.22	22 D	1.4 D	2.5 D	0.089	0.0008 U	0.015	0.027	0.016	0.071	0.0008 U	0.0054	0.01
HPAH	Dibenz(a,h)anthracene	0.0072	0.094	0.015	0.0068	0.031	0.0087	0.018	0.01	0.028	0.0066	0.026	0.015	0.031	0.0077	0.02	1.4 D	0.11 D	0.19 D	0.013	0.0008 U	0.0011 J	0.0023 J	0.001 J	0.0062	0.0008 U	0.0011 J	0.0012 J
HPAH	Indeno(1,2,3-cd)pyrene	0.042	0.59	0.094	0.043	0.19	0.055	0.099	0.058	0.2	0.04	0.21	0.086	0.18	0.045	0.1	7.8 D	0.59 D	0.61 D	0.056	0.00087 U	0.0084	0.0097	0.0049	0.037	0.00087 U	0.0045	0.0047
HPAH	Pyrene	0.081	2.8 D	0.29	0.086	0.59	0.16	0.2	0.22	0.67	0.088	0.6	0.22	0.71	0.12	0.25	58 D	4.3 D	6.7 D	0.11	0.00076 U	0.044	0.033	0.03	0.130	0.00084 J	0.0067	0.015
LPAH	Total LPAHs	0.16	7.26	0.78	0.20	2.08	0.33	0.40	0.91	2.08	0.10	1.00	0.50	2.46	0.20	0.88	193.76	17.24	29.85	0.29	0.00	0.08	0.09	0.05	0.28	0.005	0.03	0.03
HPAH	Total HPAHs	0.41	8.16	1.01	0.39	2.07	0.70	0.98	0.67	2.12	0.48	2.05	0.89	2.22	0.48	1.21	142.70	10.38	15.42	0.69	0.00 U	0.12	0.13	0.09	0.47	0.004	0.04	0.06
tPAH	Total PAHs	0.57	15.42	1.79	0.58	4.14	1.03	1.38	1.58	4.20	0.58	3.05	1.38	4.68	0.68	2.09	336.46	27.62	45.27	0.97	0.01	0.20	0.22	0.15	0.75	0.01	0.07	0.09

Notes:
Shading = surface (0 to 30 cm) sediment samples
One-half the method detection limit is used as a surrogate concentrations for non-detect results in PAH summations.
Units in mg/kg (ppm)
Definitions:
PAHs = Polycyclic Aromatic Hydrocarbons
LPAHs = Low molecular weight PAHs
HPAHs = High molecular weight PAHs
J = The result is an estimated value
U = Non-detect result; method detection limit presented.
i = The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
D = The reported result is from a dilution
X = The result reported for Dibenzofuran in samples AG-C-05 30-90 and AG-C-06 30-90 may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples.

Table 5 - Sediment Results - Petroleum Hydrocarbons
Ash Grove Cement Company - Rivergate Facility
Portland, Oregon

NWTPH Method	Constituent	AG-C-01 0-30		AG-C-01 30-90		AG-C-02 0-30		AG-C-02 30-90		AG-C-03 0-30		AG-C-03 30-90		AG-C-04 0-30		AG-C-04 30-90		AG-C-05 0-30		AG-C-05 30-90		AG-C-06 0-30		AG-C-06 30-90		AG-G-01		AG-G-02		AG-G-03		AG-G-03 30-90		AG-G-04		AG-G-05		AG-G-06		AG-G-07		AG-G-08		AG-G-09	
Dx	Diesel Range Organics (DRO)	**44**	**J**	**340**	**Y**	77	**H**	**210**	**H**	**51**	**J**	**93**	**H**	**130**	**H**	**280**	**Y**	**46**	**Y**	**250**	**Y**	65	**Z**	**190**	**Y**	**55**	**J**	**120**	**H**	**2500**	**Z**	**1400**	**Y**	**44**	**H**	--		--		**42**	**H**	--		**50**	**H**
Dx	Residual Range Organics (RRO)	**380**	**Z**	**880**	**O**	**470**	**O**	**650**	**O**	**430**	**Z**	**480**	**O**	**540**	**O**	**750**	**O**	**150**	**O**	**640**	**O**	**470**	**Z**	**590**	**O**	**480**	**Z**	**800**	**O**	**2500**	**Z**	**2200**	**O**	**440**	**O**	--		--		**420**	**O**	--		**350**	**O**
HCID	Gasoline Range Organics	46	N,D	46	N,D	43	N,D	38	N,D	48	N,D	40	N,D	37	N,D	36	N,D	26	N,D	30	N,D	43	N,D	37	N,D	47	N,D	43	N,D	44	N,D	36	N,D	26	N,D	32	N,D	29	N,D	26	N,D	24	N,D	37	N,D
HCID	Diesel Range Organics	120	N,D	**120**	**D**	110	N,D	**95**	**D**	120	N,D	99	N,D	**91**	**D**	**90**	**D**	63	N,D	**73**	**D**	110	N,D	**91**	**D**	120	N,D	**110**	**D**	**110**	**D**	**90**	**D**	65	N,D	79	N,D	71	N,D	64	N,D	60	N,D	92	N,D
HCID	Residual Range Organics	**230**	**D**	**230**	**D**	**220**	**D**	**190**	**D**	**240**	**D**	**200**	**D**	**190**	**D**	**180**	**D**	**130**	**D**	**150**	**D**	**220**	**D**	**190**	**D**	**240**	**D**	**220**	**D**	**220**	**D**	**180**	**D**	**130**	**D**	160	N,D	150	N,D	**130**	**D**	120	N,D	**190**	**D**

Definitions:
Units in milligram per kilogram (mg/kg)
Shading = surface (0 to 30 cm) sediment samples
Qualifiers:
# = The control limit criteria is not applicable because concentrations were not signifcantly greater than the method reporting limit (MRL).
D = The reported result is from a dilution.
H = The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
J = The result is an estimated value.
N = The result is presumptive. The analyte was tentatively identified, but a confirmation was not performed.
O = The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y = The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z = The chromatographic fingerprint does not resemble a petroleum product.

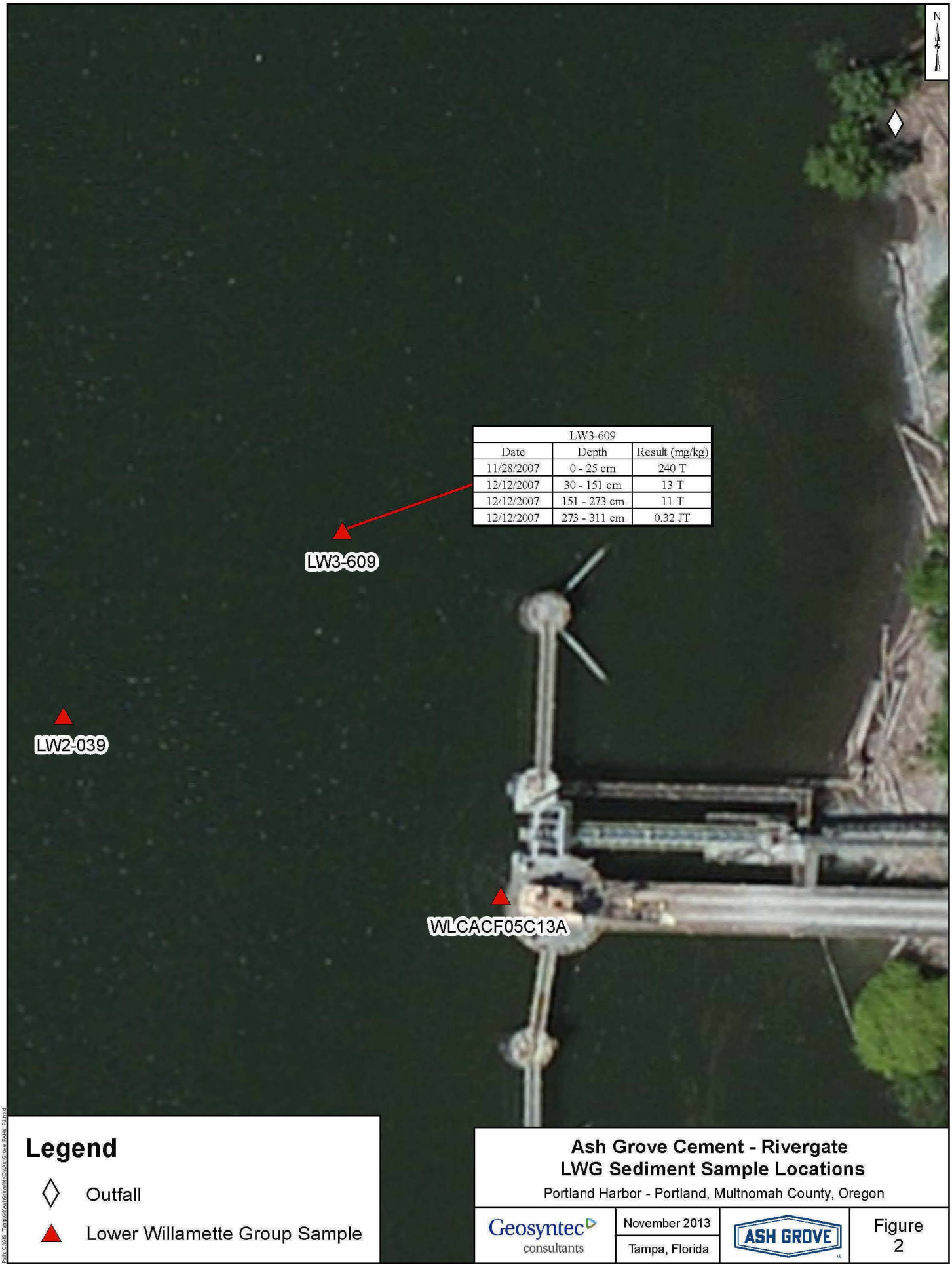
FIGURES

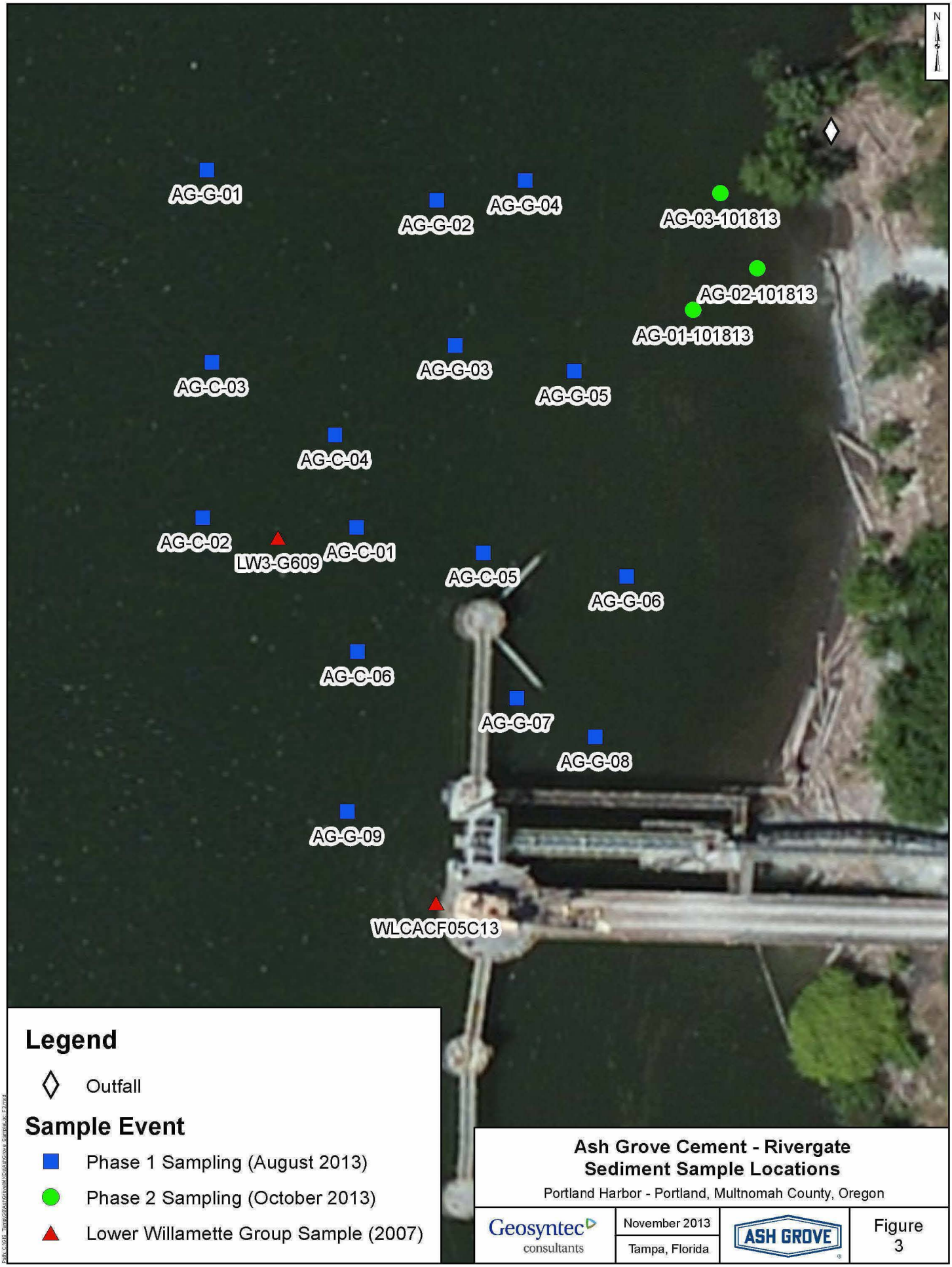
Ash Grove Cement - Rivergate
Site Location

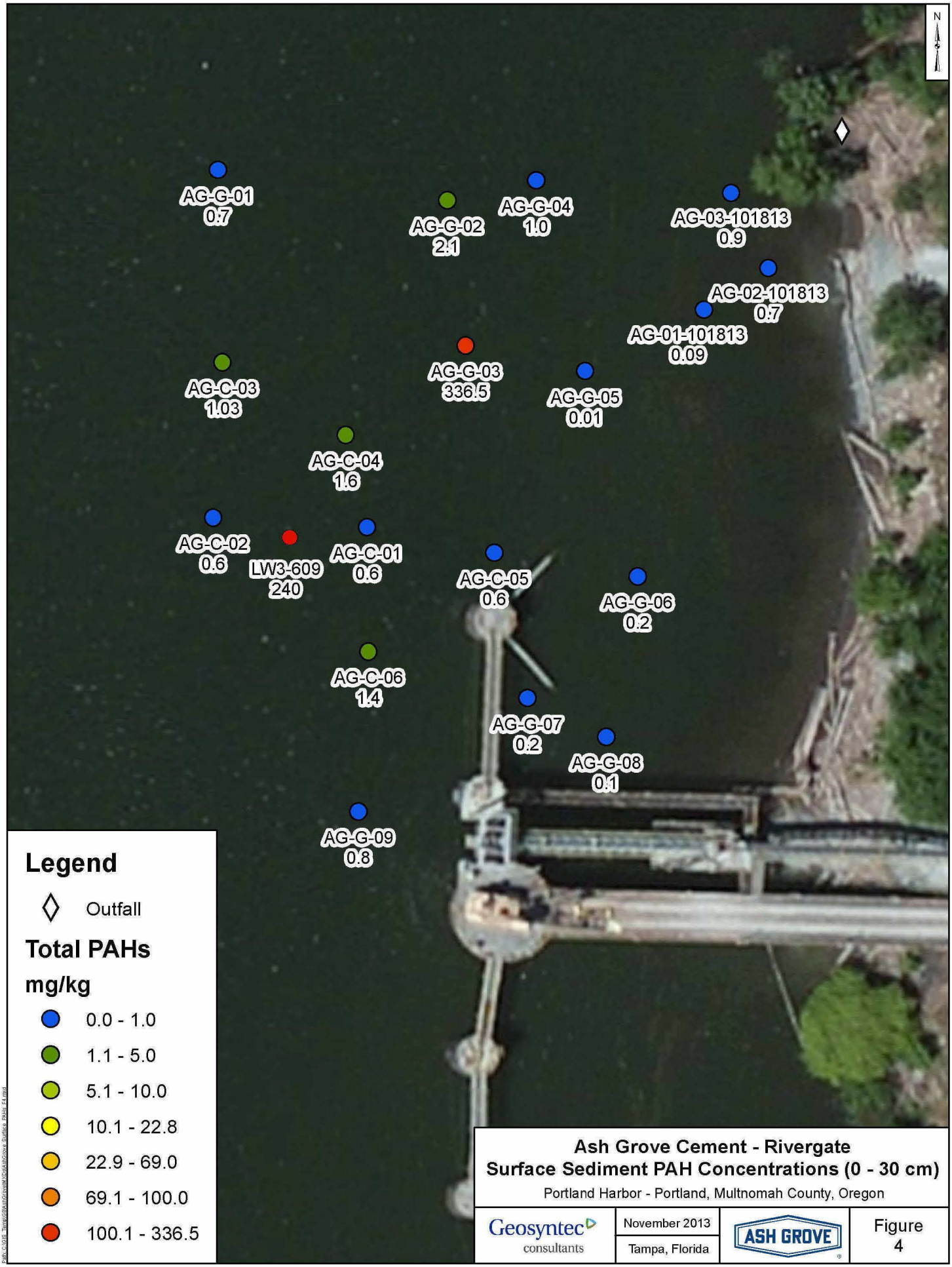
Portland Harbor - Portland, Multnomah County, Oregon

Geosyntec consultants	October 2013 Tampa, Florida	ASH GROVE	Figure 1

AGC0012415

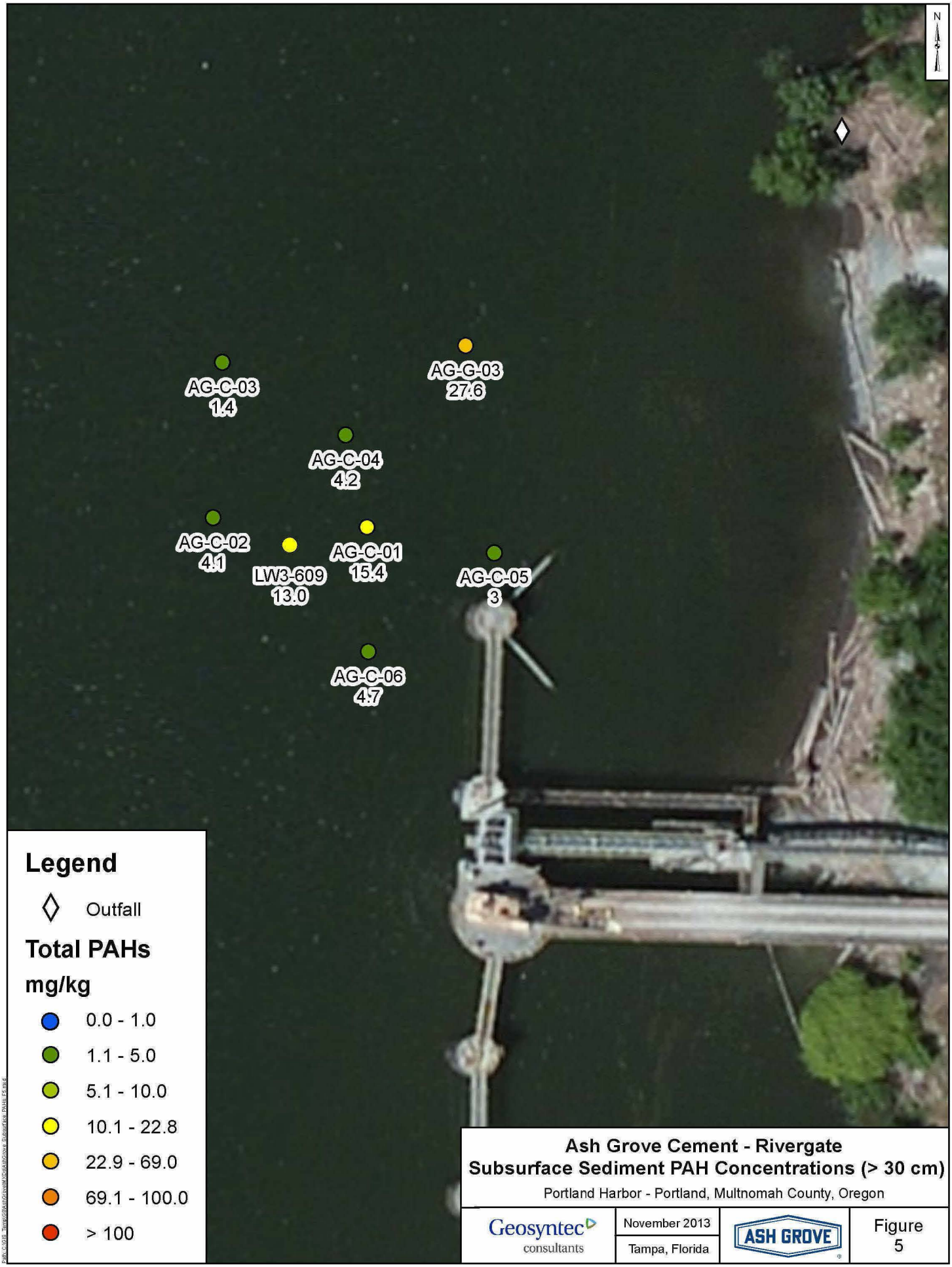

N
LW3-609
Date | Depth | Result (mg/kg)
11/28/2007 | 0 - 25 cm | 240 T
12/12/2007 | 30 - 151 cm | 13 T
12/12/2007 | 151 - 273 cm | 11 T
12/12/2007 | 273 - 311 cm | 0.32 JT
LW3-609
LW2-039
WLCACF05C13A
Legend
Outfall
Lower Willamette Group Sample
Ash Grove Cement - Rivergate
LWG Sediment Sample Locations
Portland Harbor - Portland, Multnomah County, Oregon
Geosyntec consultants
November 2013
Tampa, Florida
ASH GROVE
Figure 2


N
AG-G-01
AG-G-02
AG-G-04
AG-03-101813
AG-02-101813
AG-01-101813
AG-G-03
AG-C-03
AG-G-05
AG-C-04
AG-C-02
LW3-G609
AG-C-01
AG-C-05
AG-G-06
AG-C-06
AG-G-07
AG-G-08
AG-G-09
WLCACF05C13
Legend
Outfall
Sample Event
Phase 1 Sampling (August 2013)
Phase 2 Sampling (October 2013)
Lower Willamette Group Sample (2007)
Ash Grove Cement - Rivergate
Sediment Sample Locations
Portland Harbor - Portland, Multnomah County, Oregon
Geosyntec consultants
November 2013
Tampa, Florida
ASH GROVE
Figure
3



Ash Grove Cement - Rivergate
Surface Sediment PAH Concentrations (0 - 30 cm)
Portland Harbor - Portland, Multnomah County, Oregon

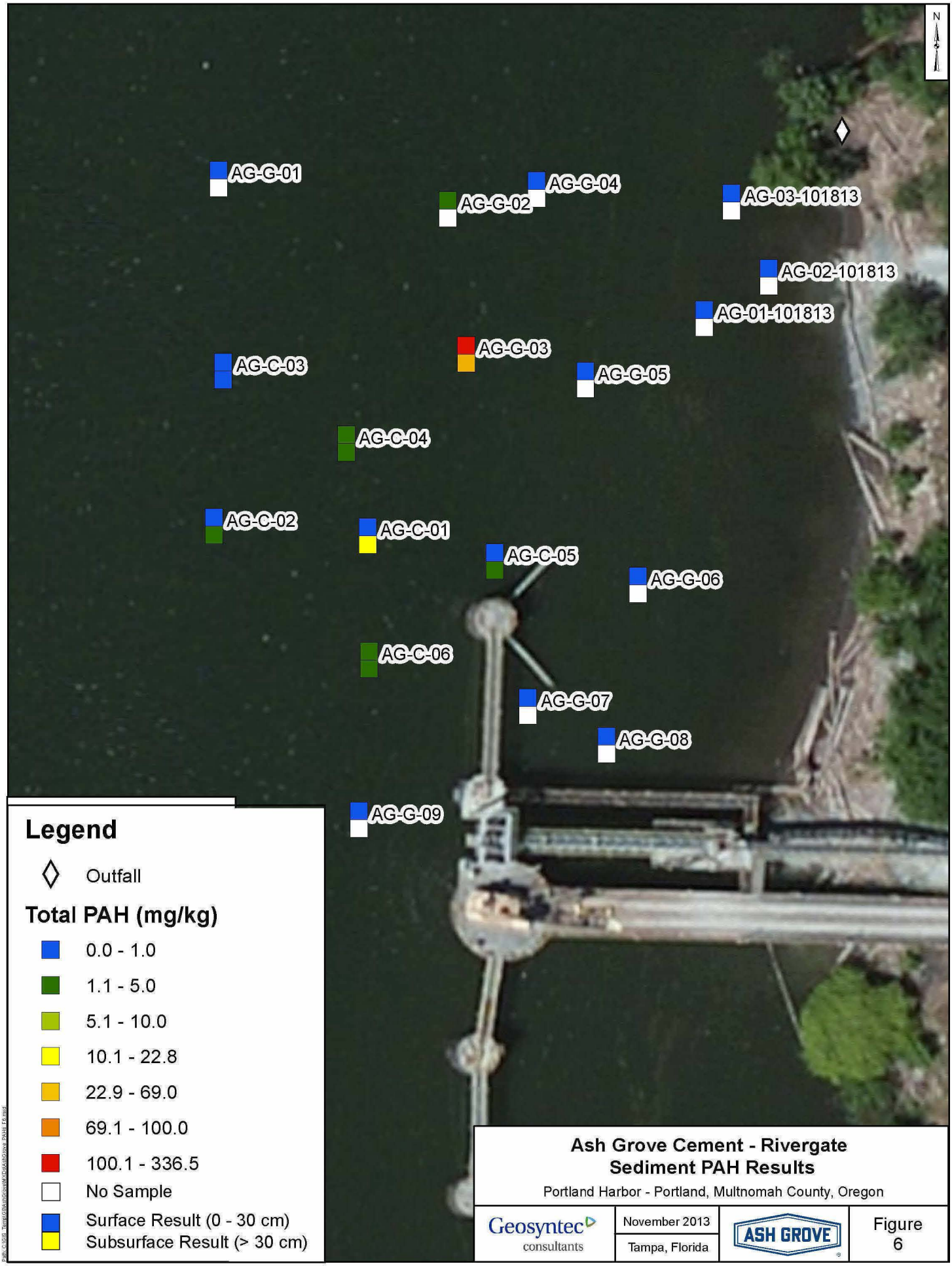
Geosyntec consultants	November 2013 Tampa, Florida	ASH GROVE	Figure 4



Ash Grove Cement - Rivergate
Subsurface Sediment PAH Concentrations (> 30 cm)

Portland Harbor - Portland, Multnomah County, Oregon

Geosyntec consultants	November 2013 Tampa, Florida	ASH GROVE	Figure 5



Ash Grove Cement - Rivergate
Sediment PAH Results

Portland Harbor - Portland, Multnomah County, Oregon

Geosyntec consultants	November 2013 Tampa, Florida	ASH GROVE	Figure 6

APPENDIX A

ALS ENVIRONMENTAL DATA PACKAGES

PHASE 1

September 20, 2013 Analytical Report for Service Request No: K1308343

Keith Kroeger
GeoSyntec Consultants
621 SW Morrison St.
Suite 600
Portland, OR 97205

RE: Ash Grove/PNG0580

Dear Keith:

Enclosed are the results of the samples submitted to our laboratory on August 16, 2013. For your reference, these analyses have been assigned our service request number K1308343.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376. You may also contact me via Email at Gregory.Salata@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Project Manager

GS/ln

AGC0012422

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

AGC0012423

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

AGC0012424

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2286
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Georgia DNR	http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
Indiana DOH	http://www.in.gov/isdh/24859.htm	C-WA-01
ISO 17025	http://www.pjlabs.com/	L12-27
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Maine DHS	Not available	WA0035
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-368
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA35
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA200001
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427-08-TX
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.caslab.com or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

ALS ENVIRONMENTAL

Client:	GeoSyntec Consultants	**Service Request No.:**	K1308343
Project:	Ash Grove/ PNG0580	**Date Received:**	08/16/13
Sample Matrix:	Soil		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Duplicate (DUP), Matrix Spike (MS), Matrix/Duplicate Matrix Spike (MS/DMS), Laboratory Control Sample (LCS), and Laboratory/Duplicate Laboratory Control Sample (LCS/DLCS).

Sample Receipt

Twenty-four soil samples were received for analysis at ALS Environmental on 08/16/13. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

General Chemistry Parameters

No anomalies associated with the analysis of these samples were observed.

Diesel Range Organics by Method NWTPH-Dx

Relative Percent Difference Exceptions:
The Relative Percent Difference (RPD) criterion for the replicate analysis of Diesel Range Organics (DRO) and/or Residual Range Organics (RRO) in samples AG-C-01 0-30, AG-C-03 0-30, Batch QC, and AG-C-03 30-90 was not applicable because the analyte concentrations were not significantly greater than the Method Reporting Limit (MRL). Analytical values derived from measurements close to the detection limit are not subject to the same accuracy and precision criteria as results derived from measurements higher on the calibration range for the method.

No other anomalies associated with the analysis of these samples were observed.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

Surrogate Exceptions:
The control criteria were exceeded for the surrogates in sample AG-G-03 due to matrix interference. The presence of very high levels of target analytes and non-target background components required a significant dilution. The dilution, combined with the matrix interference prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

The control criteria were exceeded for Terphenyl-d14 in sample AG-G-03 70-90 due to matrix interference. The presence of very high levels of target analytes and non-target background components required a significant dilution. The dilution, combined with the matrix interference prevented adequate resolution of the surrogate. Accurate quantitation was not possible. No further corrective action was appropriate.

Approved by _____

AGC0012426

Matrix Spike Recovery Exceptions:
The matrix spike recovery of Benzo(b)fluoranthene and Benzo(a)pyrene for sample AG-G-07DMS was outside control criteria. Recoveries in the replicate Laboratory Control Samples (LCS/DLCS) were acceptable, which indicated the analytical batch was in control. The matrix spike outlier suggested a potential high bias in this matrix. No further corrective action was appropriate.

Elevated Detection Limits:
The detection limit was elevated for Dibenzofuran in sample AG-G-03. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compound at the normal limit. The result was flagged to indicate the matrix interference.

The detection limits were elevated for Acenaphthylene and Dibenzofuran in sample AG-G-03 70-90. The chromatogram indicated the presence of non-target background components. The matrix interference prevented adequate resolution of the target compounds at the normal limit. The results were flagged to indicate the matrix interference.

Sample Notes and Discussion:
The result reported for Dibenzofuran in samples AG-C-05 30-90 and AG-C-06 30-90 may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples. The results were flagged with "X" to indicate the issue.

The result reported for Acenaphthylene in sample AG-3 30-90 may contain a slight bias. The chromatogram indicated the presence of non-target background components. The matrix interference may have resulted in a slight high bias in the affected samples. The results were flagged with "X" to indicate the issue.

No other anomalies associated with the analysis of these samples were observed.

Approved by

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5863 KB308345

ALS Environmental
1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

PAGE 1 OF 3

Project Name: ASH GROVE	Project Number: PNG0580
Project Manager: KEITH KROEGER	Report CC:
Company/Address: Geosyntec Consultants 1021 ~~SW~~ SW Morrison St. Ste. 600 Portland, Oregon 97205	
Phone #: 971-271-5901	Email: KKroeger@geosyntec.com
Sampler's Signature:	Sampler's Printed Name: Keith Kroeger

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	HC ID NWTPH	ASTM D422 GRAIN SIZE	TOC	Total Volatile Solids	Total Solids	TPH Lipids
PRESERVATIVE													0		0	0	0	0
AG-C-01 0-30		8/15	920	SED	2		✓						✓	✓	✓	✓	✓	✓
AG-C-01 30-90		8/15	920		2		✓						✓	✓	✓	✓	✓	✓
AG-C-02 0-30		8/15	850		2		✓						✓	✓	✓	✓	✓	✓
AG-C-02 30-90		8/15	850		2		✓						✓	✓	✓	✓	✓	✓
AG-C-04 0-30		8/14	1150		2		✓						✓	✓	✓	✓	✓	✓
AG-C-04 30-90		8/14	1150		2		✓						✓	✓	✓	✓	✓	✓
AG-C-05 0-30		8/14	1030		2		✓						✓	✓	✓	✓	✓	✓
AG-C-05 30-90		8/14	1030		2		✓						✓	✓	✓	✓	✓	✓
AG-C-06 0-30		8/15	945		2		✓						✓	✓	✓	✓	✓	✓
AG-C-06 30-90		8/15	945		2		✓						✓	✓	✓	✓	✓	✓
AC-C-03 0-30		8/14	1300	↓	2		✓						✓	✓	✓	✓	✓	✓

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

REMARKS/ ALTERNATE DESCRIPTION

SPECIAL INSTRUCTIONS/COMMENTS
Metals
Attn: Greg Salata - Contact Keith Kroeger for specific instructions

See QAPP ☐

TURNAROUND REQUIREMENTS
_____ RUSH (SURCHARGES APPLY)
_____ 1 day _____ 2 day _____ 3 day
_____ 4 day _____ 5 day
Standard
REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
_____ I. Results Only
_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
✓ III. Results + QC and Calibration Summaries
_____ IV. Data Validation Report with Raw Data
Edata ✓ Yes _____ No

INVOICE INFORMATION
PO #
BILL TO:

STATE WHERE SAMPLES WERE COLLECTED

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Keith Kroeger	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Geosyntec	Printed Name:	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: 8/16/13 8:43	Firm: 8/16/13 10:05	Firm:	Firm:	Firm:	Firm: 8/16/13 13:30
Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:	Date/Time:

Distribution: White - Lab Copy; Yellow - Return to Originator

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AGC0012428

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 5864

K1308843

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 2 OF 3

Project Name: AshGrove	Project Number: PNG 0580
Project Manager: Keith Kroeger	Report CC:
Company/Address: Geosyntec Consultants, 621 SW Morrison St. Ste. 600, Portland, Oregon 97205	
Phone #: 971-271-5901	Email: KKroeger@geosyntec.com
Sampler's Signature: [signature]	Sampler's Printed Name: Keith Kroeger

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 0 | 0 | 0 | 0 | 0

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	NWTPH-HCID	Grain Size ASTM D422	TOC	Total Volatile Solids	Total Solids	~~[illegible]~~	REMARKS/ ALTERNATE DESCRIPTION
AG-C-03 30-90		8/15	920	SED	2		✓						✓	✓	✓	✓	✓	✓	
AG-G-01		8/14	920		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-02		8/14	940		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-03		8/14	930		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-04		8/14	1000		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-05		8/14	945		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-06		8/14	1010		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-07		8/14	1020		2		✓						✓	✓	✓	✓	✓	✓	
AG-G-08		8/15	1030		1		✓						✓	✓	✓	✓	✓	✓	
AG-G-09		8/15	1010		1		✓						✓	✓	✓	✓	✓	✓	
AG-G-03 30-90		8/15	1050		1		✓						✓	✓	✓	✓	✓	✓	

SPECIAL INSTRUCTIONS/COMMENTS

Metals

Attn: Greg Salata - contact Keith Kroeger for specific instructions

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

____ RUSH (SURCHARGES APPLY)

____ 1 day ____ 2 day ____ 3 day

____ 4 day ____ 5 day

Standard

REQUESTED REPORT DATE

REPORT REQUIREMENTS

____ I. Results Only

____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

✓ III. Results + QC and Calibration Summaries

____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION

PO #

BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
[signature]	[signature]				[signature]
Signature: Keith Kroeger	Signature: [signature]	Signature	Signature	Signature	Signature: [signature]
Printed Name: GEOSYNTEC	Printed Name: ALS	Printed Name	Printed Name	Printed Name	Printed Name: ALS
Firm: 8/16/13 8:43	Firm: ALS	Firm	Firm	Firm	Firm: 8-16-13 13:30
Date/Time	Date/Time: 8/16/13 10:05	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return to Originator

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AGC0012429

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 5865 K1308343

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 3 OF 3

Project Name: Ash Grove	Project Number: PNG 0580
Project Manager: Keith Kroeger	Report CC:
Company/Address: Geosyntec Consultants, 621 SW Morrison St. Ste 600, Portland, Oregon 97205	
Phone #: 971-271-5901	Email: kkroeger@geosyntec.com
Sampler's Signature: [signature]	Sampler's Printed Name:

ANALYSIS REQUESTED *(Include Method Number and Container Preservative)*

PRESERVATIVE: 0

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOAs ○ 8260 ○ 624 ○ CLP	GC/MS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	~~NWTPH HCID~~	~~Organic Sign (Firm Dup 2 mo)~~	~~TOC~~	~~Total Volatile Solids~~	~~Total Solids~~	~~Long Solids~~	Archive	REMARKS/ ALTERNATE DESCRIPTION
AG-C-01 45		8/15	920	SED	1		✓												✓	ARCHIVE REMAINING SAMPLE
AG-G-03 70-90		8/15	1050	SED	1		✓												✓	" " "

SPECIAL INSTRUCTIONS/COMMENTS

Metals

Attn: Greg Salata - contact Keith Kroeger for specific instructions

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED

TURNAROUND REQUIREMENTS

_____ RUSH (SURCHARGES APPLY)

_____ 1 day _____ 2 day _____ 3 day

_____ 4 day _____ 5 day

Standard

REQUESTED REPORT DATE

REPORT REQUIREMENTS

_____ I. Results Only

_____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)

X III. Results + QC and Calibration Summaries

_____ IV. Data Validation Report with Raw Data

Edata X Yes _____ No

INVOICE INFORMATION

PO #

BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature: [signature]
Printed Name: KEITH KROEGER	Printed Name: ALS	Printed Name	Printed Name	Printed Name	Printed Name: ALS
Firm: GEOSYNTEC 8/16/13 8:44	Firm: 8/16/13 1005	Firm	Firm	Firm	Firm: 8/16/13 13:30
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

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AGC0012430

PC GS

Cooler Receipt and Preservation Form

Client / Project: GeoSyntec Service Request *K13* 8343

Received: 8/6/13 Opened: 8/6/13 By: KW Unloaded: 8/6/13 By: KW

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
0.1	0.1	0.9	0.9	0.0	337	5863, 5864	5865	
0.6	0.6	1.1	1.1	0.0	341			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N KW 8/6/13
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Page ____ *of* ____

AGC0012431

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580		
Sample Matrix:	Soil		

Total Solids

Prep Method:	NONE	**Units:**	PERCENT
Analysis Method:	160.3M	**Basis:**	Wet
Test Notes:			

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
AG-C-01 0-30	K1308343-001	08/15/2013	08/16/2013	08/21/2013	43.4	
AG-C-01 30-90	K1308343-002	08/15/2013	08/16/2013	08/21/2013	43.1	

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013
		Date Analyzed:	08/21/2013

Duplicate Sample Summary

Total Solids

Prep Method:	NONE	**Units:**	PERCENT
Analysis Method:	160.3M	**Basis:**	Wet
Test Notes:			

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
AG-C-01 0-30	K1308343-001	43.4	56.7	50.1	27	

Analytical Results

Client: GeoSyntec Consultants
Project: Ash Grove/PNG0580
Sample Matrix: Soil

Service Request: K1308343

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
AG-C-02 0-30	K1308343-003	08/15/2013	08/16/2013	08/21/2013	47.3	
AG-C-02 30-90	K1308343-004	08/15/2013	08/16/2013	08/21/2013	52.6	
AG-C-04 0-30	K1308343-005	08/14/2013	08/16/2013	08/21/2013	55.1	
AG-C-04 30-90	K1308343-006	08/14/2013	08/16/2013	08/21/2013	55.7	
AG-C-05 0-30	K1308343-007	08/14/2013	08/16/2013	08/21/2013	79.8	
AG-C-05 30-90	K1308343-008	08/14/2013	08/16/2013	08/21/2013	68.9	
AG-C-06 0-30	K1308343-009	08/15/2013	08/16/2013	08/21/2013	46.6	
AG-C-06 30-90	K1308343-010	08/15/2013	08/16/2013	08/21/2013	54.6	
AG-C-03 0-30	K1308343-011	08/14/2013	08/16/2013	08/21/2013	41.8	
AG-C-03 30-90	K1308343-012	08/15/2013	08/16/2013	08/21/2013	50.2	
AG-G-01	K1308343-013	08/14/2013	08/16/2013	08/21/2013	42.4	
AG-G-02	K1308343-014	08/14/2013	08/16/2013	08/21/2013	47.3	
AG-G-03	K1308343-015	08/14/2013	08/16/2013	08/21/2013	45.4	
AG-G-04	K1308343-016	08/14/2013	08/16/2013	08/21/2013	77.0	
AG-G-05	K1308343-017	08/14/2013	08/16/2013	08/21/2013	63.0	
AG-G-06	K1308343-018	08/14/2013	08/16/2013	08/21/2013	70.7	
AG-G-07	K1308343-019	08/14/2013	08/16/2013	08/21/2013	78.1	
AG-G-08	K1308343-020	08/15/2013	08/16/2013	08/21/2013	83.9	
AG-G-09	K1308343-021	08/15/2013	08/16/2013	08/21/2013	54.5	
AG-G-03 30-90	K1308343-022	08/15/2013	08/16/2013	08/21/2013	55.5	

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013
		Date Analyzed:	08/21/2013

Duplicate Sample Summary
Total Solids

Prep Method:	NONE	**Units:**	PERCENT
Analysis Method:	160.3M	**Basis:**	Wet
Test Notes:			

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
AG-C-02 0-30	K1308343-003	47.3	48.9	48.1	3	

Analytical Results

Client: GeoSyntec Consultants
Project: Ash Grove/PNG0580
Sample Matrix: Soil

Service Request: K1308343

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
AG-C-01 45	K1308343-023	08/15/2013	08/16/2013	08/21/2013	56.9	
AG-G-03 70-90	K1308343-024	08/15/2013	08/16/2013	08/21/2013	59.2	

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013
		Date Analyzed:	08/21/2013

Duplicate Sample Summary
Total Solids

Prep Method:	NONE	**Units:**	PERCENT
Analysis Method:	160.3M	**Basis:**	Wet
Test Notes:			

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
AG-G-03 70-90	K1308343-024	59.2	59.8	59.5	1	

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-01 0-30
Lab Code: K1308343-001

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.0466	99.82
Sand, Coarse	**No.40 (0.425 mm)**	0.2095	99.03
Sand, Medium	**No.60 (0.250 mm)**	0.4151	97.47
Sand, Fine	**No.140 (0.106 mm)**	1.2968	92.57
Sand, Very Fine	**No.200 (0.0750 mm)**	1.1513	88.23

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	83.19
0.005 mm	21.28
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-01 30-90
Lab Code: K1308343-002

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.2294	99.37
Sand, Very Coarse	**No.20 (0.850 mm)**	0.3371	98.45
Sand, Coarse	**No.40 (0.425 mm)**	0.6795	96.58
Sand, Medium	**No.60 (0.250 mm)**	1.5301	92.39
Sand, Fine	**No.140 (0.106 mm)**	2.9853	84.20
Sand, Very Fine	**No.200 (0.0750 mm)**	1.9965	78.72

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	74.73
0.005 mm	17.02
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-02 0-30
Lab Code: K1308343-003

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.99
Gravel	**No.3/8"(9.50 mm)**	3.6048	91.08
Gravel, Medium	**No.4 (4.75 mm)**	0.5903	89.62
Gravel, Fine	**No.10 (2.00 mm)**	0.3555	88.75
Sand, Very Coarse	**No.20 (0.850 mm)**	0.1521	88.37
Sand, Coarse	**No.40 (0.425 mm)**	0.1613	87.97
Sand, Medium	**No.60 (0.250 mm)**	0.2205	87.42
Sand, Fine	**No.140 (0.106 mm)**	1.1132	84.66
Sand, Very Fine	**No.200 (0.0750 mm)**	1.8090	80.18

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	79.51
0.005 mm	30.07
0.001 mm	0.53

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-02 30-90
Lab Code: K1308343-004

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.0174	99.95
Sand, Coarse	**No.40 (0.425 mm)**	0.1435	99.56
Sand, Medium	**No.60 (0.250 mm)**	0.3033	98.74
Sand, Fine	**No.140 (0.106 mm)**	2.2249	92.73
Sand, Very Fine	**No.200 (0.0750 mm)**	2.1922	86.80

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	85.46
0.005 mm	24.20
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-04 0-30
Lab Code: K1308343-005

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	101.39
Gravel	**No.3/8"(9.50 mm)**	0.5855	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.5928	98.59
Sand, Very Coarse	**No.20 (0.850 mm)**	0.2581	97.97
Sand, Coarse	**No.40 (0.425 mm)**	0.8191	95.99
Sand, Medium	**No.60 (0.250 mm)**	2.3571	90.30
Sand, Fine	**No.140 (0.106 mm)**	3.5116	81.83
Sand, Very Fine	**No.200 (0.0750 mm)**	1.9522	77.12

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	74.49
0.005 mm	23.59
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-04 30-90
Lab Code: K1308343-006

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.1517	99.61
Sand, Coarse	**No.40 (0.425 mm)**	0.5340	98.26
Sand, Medium	**No.60 (0.250 mm)**	1.0173	95.67
Sand, Fine	**No.140 (0.106 mm)**	1.9357	90.75
Sand, Very Fine	**No.200 (0.0750 mm)**	2.1854	85.20

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	82.38
0.005 mm	25.21
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-05 0-30
Lab Code: K1308343-007

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.97
Gravel	**No.3/8"(9.50 mm)**	4.4946	92.12
Gravel, Medium	**No.4 (4.75 mm)**	2.5483	87.67
Gravel, Fine	**No.10 (2.00 mm)**	1.9179	84.33
Sand, Very Coarse	**No.20 (0.850 mm)**	1.7672	81.24
Sand, Coarse	**No.40 (0.425 mm)**	7.8721	67.49
Sand, Medium	**No.60 (0.250 mm)**	17.0244	37.75
Sand, Fine	**No.140 (0.106 mm)**	12.3425	16.18
Sand, Very Fine	**No.200 (0.0750 mm)**	1.3111	13.89

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	13.89
0.005 mm	4.51
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-05 30-90
Lab Code: K1308343-008

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	106.66
Gravel	**No.3/8"(9.50 mm)**	4.0040	99.25
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	99.25
Gravel, Fine	**No.10 (2.00 mm)**	0.3674	98.58
Sand, Very Coarse	**No.20 (0.850 mm)**	0.5432	97.50
Sand, Coarse	**No.40 (0.425 mm)**	5.6116	86.34
Sand, Medium	**No.60 (0.250 mm)**	13.2841	59.95
Sand, Fine	**No.140 (0.106 mm)**	12.4202	35.27
Sand, Very Fine	**No.200 (0.0750 mm)**	2.7127	29.88

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	30.11
0.005 mm	9.47
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-06 0-30
Lab Code: K1308343-009

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0290	99.93
Gravel, Fine	**No.10 (2.00 mm)**	0.1614	99.57
Sand, Very Coarse	**No.20 (0.850 mm)**	0.1249	99.28
Sand, Coarse	**No.40 (0.425 mm)**	0.5121	98.11
Sand, Medium	**No.60 (0.250 mm)**	1.5456	94.57
Sand, Fine	**No.140 (0.106 mm)**	4.9187	83.30
Sand, Very Fine	**No.200 (0.0750 mm)**	2.9233	76.61

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	74.83
0.005 mm	20.40
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-06 30-90
Lab Code: K1308343-010

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.2430	99.19
Sand, Coarse	**No.40 (0.425 mm)**	0.3506	98.03
Sand, Medium	**No.60 (0.250 mm)**	0.8133	95.33
Sand, Fine	**No.140 (0.106 mm)**	2.1169	88.30
Sand, Very Fine	**No.200 (0.0750 mm)**	1.7489	82.49

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	80.16
0.005 mm	21.75
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-03 0-30
Lab Code: K1308343-011

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.1520	99.57
Sand, Coarse	**No.40 (0.425 mm)**	0.4116	98.42
Sand, Medium	**No.60 (0.250 mm)**	0.5949	96.75
Sand, Fine	**No.140 (0.106 mm)**	1.6810	92.04
Sand, Very Fine	**No.200 (0.0750 mm)**	1.9528	86.57

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	82.65
0.005 mm	26.88
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-03 30-90
Lab Code: K1308343-012

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.4872	98.77
Sand, Coarse	**No.40 (0.425 mm)**	1.4455	95.14
Sand, Medium	**No.60 (0.250 mm)**	3.3655	86.67
Sand, Fine	**No.140 (0.106 mm)**	2.8869	79.41
Sand, Very Fine	**No.200 (0.0750 mm)**	1.4892	75.67

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	73.83
0.005 mm	23.38
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-01
Lab Code: K1308343-013

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.1920	99.15
Sand, Coarse	**No.40 (0.425 mm)**	0.2718	97.94
Sand, Medium	**No.60 (0.250 mm)**	0.2974	96.62
Sand, Fine	**No.140 (0.106 mm)**	0.7086	93.47
Sand, Very Fine	**No.200 (0.0750 mm)**	0.8036	89.89

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	89.12
0.005 mm	23.52
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-02
Lab Code: K1308343-014

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0703	99.76
Sand, Very Coarse	**No.20 (0.850 mm)**	0.9743	96.42
Sand, Coarse	**No.40 (0.425 mm)**	0.2952	95.41
Sand, Medium	**No.60 (0.250 mm)**	0.3492	94.21
Sand, Fine	**No.140 (0.106 mm)**	1.1960	90.11
Sand, Very Fine	**No.200 (0.0750 mm)**	1.4970	84.97

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	79.67
0.005 mm	14.35
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-03
Lab Code: K1308343-015

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.3444	98.67
Sand, Coarse	**No.40 (0.425 mm)**	0.4360	97.00
Sand, Medium	**No.60 (0.250 mm)**	0.8938	93.55
Sand, Fine	**No.140 (0.106 mm)**	2.0787	85.55
Sand, Very Fine	**No.200 (0.0750 mm)**	1.6457	79.22

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	72.46
0.005 mm	16.69
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-04
Lab Code: K1308343-016

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.99
Gravel	**No.3/8"(9.50 mm)**	4.5319	88.43
Gravel, Medium	**No.4 (4.75 mm)**	1.6759	84.15
Gravel, Fine	**No.10 (2.00 mm)**	2.3371	78.19
Sand, Very Coarse	**No.20 (0.850 mm)**	0.7939	76.16
Sand, Coarse	**No.40 (0.425 mm)**	5.7009	61.59
Sand, Medium	**No.60 (0.250 mm)**	18.1316	15.26
Sand, Fine	**No.140 (0.106 mm)**	5.2395	1.87
Sand, Very Fine	**No.200 (0.0750 mm)**	0.0991	1.62

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	1.01
0.005 mm	0.00
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-05
Lab Code: K1308343-017

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.99
Gravel	**No.3/8"(9.50 mm)**	0.0000	99.99
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	99.99
Gravel, Fine	**No.10 (2.00 mm)**	0.1180	99.69
Sand, Very Coarse	**No.20 (0.850 mm)**	0.2156	99.14
Sand, Coarse	**No.40 (0.425 mm)**	0.2691	98.45
Sand, Medium	**No.60 (0.250 mm)**	0.3976	97.43
Sand, Fine	**No.140 (0.106 mm)**	10.8083	69.77
Sand, Very Fine	**No.200 (0.0750 mm)**	5.2253	56.40

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	52.81
0.005 mm	13.51
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-06
Lab Code: K1308343-018

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.97
Gravel	**No.3/8"(9.50 mm)**	3.4880	92.21
Gravel, Medium	**No.4 (4.75 mm)**	0.6358	90.80
Gravel, Fine	**No.10 (2.00 mm)**	0.6062	89.45
Sand, Very Coarse	**No.20 (0.850 mm)**	0.6988	87.90
Sand, Coarse	**No.40 (0.425 mm)**	1.7387	84.03
Sand, Medium	**No.60 (0.250 mm)**	4.2885	74.48
Sand, Fine	**No.140 (0.106 mm)**	21.9211	25.70
Sand, Very Fine	**No.200 (0.0750 mm)**	2.9477	19.14

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	16.95
0.005 mm	2.42
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-07
Lab Code: K1308343-019

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	3.9135	86.73
Gravel, Fine	**No.10 (2.00 mm)**	1.8619	80.42
Sand, Very Coarse	**No.20 (0.850 mm)**	1.1053	76.67
Sand, Coarse	**No.40 (0.425 mm)**	3.7879	63.81
Sand, Medium	**No.60 (0.250 mm)**	7.9622	36.79
Sand, Fine	**No.140 (0.106 mm)**	8.1715	9.05
Sand, Very Fine	**No.200 (0.0750 mm)**	1.1742	5.07

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	4.95
0.005 mm	0.09
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-08
Lab Code: K1308343-020

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.99
Gravel	**No.3/8"(9.50 mm)**	0.0000	99.99
Gravel, Medium	**No.4 (4.75 mm)**	7.1903	86.14
Gravel, Fine	**No.10 (2.00 mm)**	9.1680	68.48
Sand, Very Coarse	**No.20 (0.850 mm)**	3.9048	60.95
Sand, Coarse	**No.40 (0.425 mm)**	9.0309	43.55
Sand, Medium	**No.60 (0.250 mm)**	11.8105	20.78
Sand, Fine	**No.140 (0.106 mm)**	8.8546	3.72
Sand, Very Fine	**No.200 (0.0750 mm)**	0.6622	2.44

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	1.81
0.005 mm	0.00
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-09
Lab Code: K1308343-021

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	99.97
Gravel	**No.3/8"(9.50 mm)**	0.0000	99.97
Gravel, Medium	**No.4 (4.75 mm)**	2.7237	93.02
Gravel, Fine	**No.10 (2.00 mm)**	3.0046	85.35
Sand, Very Coarse	**No.20 (0.850 mm)**	1.5469	81.39
Sand, Coarse	**No.40 (0.425 mm)**	1.0317	78.76
Sand, Medium	**No.60 (0.250 mm)**	2.8685	71.42
Sand, Fine	**No.140 (0.106 mm)**	4.2326	60.60
Sand, Very Fine	**No.200 (0.0750 mm)**	1.5359	56.67

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	52.25
0.005 mm	13.15
0.001 mm	0.00

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-G-03 30-90
Lab Code: K1308343-022

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0904	99.78
Sand, Very Coarse	**No.20 (0.850 mm)**	1.3406	96.57
Sand, Coarse	**No.40 (0.425 mm)**	1.6819	92.53
Sand, Medium	**No.60 (0.250 mm)**	2.3895	86.79
Sand, Fine	**No.140 (0.106 mm)**	2.7762	80.12
Sand, Very Fine	**No.200 (0.0750 mm)**	1.9112	75.53

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	78.88
0.005 mm	44.05
0.001 mm	23.25

ALS Group USA, Corp.
dba ALS Environmental
Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013
		Date Analyzed:	8/20/2013

Particle Size Determination
ASTM D422

Sample Name: AG-C-01 0-30
Lab Code: K1308343-001 dup

Gravel and Sand
(Sieve Analysis)

Description	Sieve Size	Weight (g)	Percent Passing
Gravel	**No.3/4"(19.0 mm)**	0.0000	100.00
Gravel	**No.3/8"(9.50 mm)**	0.0000	100.00
Gravel, Medium	**No.4 (4.75 mm)**	0.0000	100.00
Gravel, Fine	**No.10 (2.00 mm)**	0.0000	100.00
Sand, Very Coarse	**No.20 (0.850 mm)**	0.0585	99.73
Sand, Coarse	**No.40 (0.425 mm)**	0.2285	98.68
Sand, Medium	**No.60 (0.250 mm)**	0.2564	97.50
Sand, Fine	**No.140 (0.106 mm)**	1.0114	92.84
Sand, Very Fine	**No.200 (0.0750 mm)**	0.9856	88.30

Silt and Clay
(Hydrometer Analysis)

Particle Diameter	Percent Passing
0.074 mm	89.77
0.005 mm	26.52
0.001 mm	0.00

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/13 - 08/15/13
Sample Matrix:	Soil	**Date Received:**	08/16/13
Analysis Method:	ASTM D4129-05 Modified	**Units:**	Percent
Prep Method:	CAS SOP	**Basis:**	Dry, per Method

Carbon, Total Organic (TOC)

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
AG-C-01 0-30	K1308343-001	**2.45**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-01 30-90	K1308343-002	**1.81**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-02 0-30	K1308343-003	**2.16**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-02 30-90	K1308343-004	**1.99**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-04 0-30	K1308343-005	**1.58**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-04 30-90	K1308343-006	**1.99**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-05 0-30	K1308343-007	**0.518**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-05 30-90	K1308343-008	**0.867**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-06 0-30	K1308343-009	**2.19**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-06 30-90	K1308343-010	**1.93**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-03 0-30	K1308343-011	**2.50**	0.050	0.020	1	08/23/13 14:00	8/23/13	
AG-C-03 30-90	K1308343-012	**2.03**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-01	K1308343-013	**2.56**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-02	K1308343-014	**2.12**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-03	K1308343-015	**2.72**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-04	K1308343-016	**0.371**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-05	K1308343-017	**0.937**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-06	K1308343-018	**0.270**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-07	K1308343-019	**0.267**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-08	K1308343-020	**0.147**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-09	K1308343-021	**1.68**	0.050	0.020	1	08/26/13 14:30	8/26/13	
AG-G-03 30-90	K1308343-022	**2.31**	0.050	0.020	1	08/26/13 14:30	8/26/13	
Method Blank	K1308343-MB1	ND U	0.050	0.020	1	08/23/13 14:00	8/23/13	
Method Blank	K1308343-MB2	ND U	0.050	0.020	1	08/26/13 14:30	8/26/13	

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QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project	Ash Grove/PNG0580	**Date Collected:**	08/15/13
Sample Matrix:	Soil	**Date Received:**	08/16/13
Analysis Method:	ASTM D4129-05 Modified	**Units:**	Percent
Prep Method:	CAS SOP	**Basis:**	Dry, per Method

Duplicate Sample Summary
Carbon, Total Organic (TOC)

Sample Name:	Lab Code:	MRL	MDL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
AG-C-01 0-30	K1308343-001DUP	0.050	0.020	2.45	2.43	2.44	1	20	08/23/13
AG-C-03 30-90	K1308343-012DUP	0.050	0.020	2.03	2.01	2.02	<1	20	08/26/13

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Superset Reference:13-0000259709 rev 00

ALS Group USA, Corp.
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QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/13
Sample Matrix:	Soil	**Date Received:**	08/16/13
		Date Analyzed:	08/23/13
		Date Extracted:	08/23/13

Duplicate Matrix Spike Summary
Carbon, Total Organic (TOC)

Sample Name:	AG-C-01 0-30	**Units:**	Percent
Lab Code:	K1308343-001	**Basis:**	Dry, per Method
Analysis Method:	ASTM D4129-05 Modified		
Prep Method:	CAS SOP		

		Matrix Spike K1308343-001MS			**Duplicate Matrix Spike** K1308343-001DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Total Organic (TOC)	2.45	6.03	3.73	96	6.66	4.21	100	70-122	4	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/13
Sample Matrix:	Soil	**Date Received:**	08/16/13
		Date Analyzed:	08/26/13
		Date Extracted:	08/26/13

Duplicate Matrix Spike Summary
Carbon, Total Organic (TOC)

Sample Name:	AG-C-03 30-90	**Units:**	Percent
Lab Code:	K1308343-012	**Basis:**	Dry, per Method
Analysis Method:	ASTM D4129-05 Modified		
Prep Method:	CAS SOP		

		Matrix Spike K1308343-012MS			**Duplicate Matrix Spike** K1308343-012DMS					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Carbon, Total Organic (TOC)	2.03	5.57	3.68	96	5.47	3.57	96	70-122	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Analyzed:**	08/23/13
Sample Matrix:	Soil	**Date Extracted:**	08/23/13

Lab Control Sample Summary
Carbon, Total Organic (TOC)

Analysis Method:	ASTM D4129-05 Modified	**Units:**	Percent
Prep Method:	CAS SOP	**Basis:**	Dry, per Method
		Analysis Lot:	355296

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K1308343-LCS1	0.246	0.275	89	72-122

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Analyzed:**	08/26/13
Sample Matrix:	Soil	**Date Extracted:**	08/26/13

Lab Control Sample Summary
Carbon, Total Organic (TOC)

Analysis Method:	ASTM D4129-05 Modified	**Units:**	Percent
Prep Method:	CAS SOP	**Basis:**	Dry, per Method
		Analysis Lot:	355608

Sample Name	Lab Code	Result	Spike Amount	% Rec	% Rec Limits
Lab Control Sample	K1308343-LCS2	0.254	0.275	93	72-122

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/13 - 08/15/13
Sample Matrix:	Soil	**Date Received:**	08/16/13
Analysis Method:	SM 2540 G	**Units:**	Percent
		Basis:	Dry, per Method

Solids, Total Fixed

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
AG-C-01 0-30	K1308343-001	**91.6**	0.010	-	1	08/21/13 16:00	
AG-C-01 30-90	K1308343-002	**93.0**	0.010	-	1	08/21/13 16:00	
AG-C-02 0-30	K1308343-003	**92.5**	0.010	-	1	08/21/13 16:00	
AG-C-02 30-90	K1308343-004	**92.6**	0.010	-	1	08/21/13 16:00	
AG-C-04 0-30	K1308343-005	**93.3**	0.010	-	1	08/21/13 16:00	
AG-C-04 30-90	K1308343-006	**92.5**	0.010	-	1	08/21/13 16:00	
AG-C-05 0-30	K1308343-007	**98.0**	0.010	-	1	08/21/13 16:00	
AG-C-05 30-90	K1308343-008	**95.8**	0.010	-	1	08/21/13 16:00	
AG-C-06 0-30	K1308343-009	**92.1**	0.010	-	1	08/21/13 16:00	
AG-C-06 30-90	K1308343-010	**92.2**	0.010	-	1	08/21/13 16:00	
AG-C-03 0-30	K1308343-011	**91.2**	0.010	-	1	08/21/13 16:00	
AG-C-03 30-90	K1308343-012	**92.1**	0.010	-	1	08/21/13 16:00	
AG-G-01	K1308343-013	**91.3**	0.010	-	1	08/21/13 16:00	
AG-G-02	K1308343-014	**91.8**	0.010	-	1	08/21/13 16:00	
AG-G-03	K1308343-015	**91.8**	0.010	-	1	08/21/13 16:00	
AG-G-04	K1308343-016	**97.5**	0.010	-	1	08/21/13 16:00	
AG-G-05	K1308343-017	**94.8**	0.010	-	1	08/21/13 16:00	
AG-G-06	K1308343-018	**97.2**	0.010	-	1	08/21/13 16:00	
AG-G-07	K1308343-019	**97.9**	0.010	-	1	08/21/13 16:00	
AG-G-08	K1308343-020	**98.6**	0.010	-	1	08/21/13 16:00	
AG-G-09	K1308343-021	**94.4**	0.010	-	1	08/21/13 16:00	
AG-G-03 30-90	K1308343-022	**92.2**	0.010	-	1	08/21/13 16:00	
Method Blank	K1308343-MB1	ND U	0.010	-	1	08/21/13 16:00	
Method Blank	K1308343-MB2	ND U	0.010	-	1	08/21/13 16:00	

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QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project	Ash Grove/PNG0580	**Date Collected:**	08/15/13
Sample Matrix:	Soil	**Date Received:**	08/16/13
Analysis Method:	SM 2540 G	**Units:**	Percent
		Basis:	Dry, per Method

Duplicate Sample Summary
Solids, Total Fixed

Sample Name:	Lab Code:	MRL	MDL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
AG-C-01 0-30	K1308343-001DUP	0.010		91.6	91.5	91.6	<1	20	08/21/13
AG-C-02 0-30	K1308343-003DUP	0.010		92.5	93.1	92.8	<1	20	08/21/13

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-01 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-001	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**44**	J	58	2.8	1	08/21/13	08/26/13	KWG1308781	
Residual Range Organics (RRO)	**380**	Z	230	6.7	1	08/21/13	08/26/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	50-150	08/26/13	Acceptable
n-Triacontane	88	50-150	08/26/13	Acceptable

Comments:

AGC0012469

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-01 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-002	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**340**	Y	58	2.8	1	08/21/13	08/26/13	KWG1308781	
Residual Range Organics (RRO)	**880**	O	230	6.7	1	08/21/13	08/26/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	85	50-150	08/26/13	Acceptable
n-Triacontane	87	50-150	08/26/13	Acceptable

Comments:

AGC0012470

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Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-02 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-003	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**77**	H	53	2.6	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**470**	O	220	6.1	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	96	50-150	08/28/13	Acceptable
n-Triacontane	100	50-150	08/28/13	Acceptable

Comments:

AGC0012471

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Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-02 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-004	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**210**	H	48	2.3	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**650**	O	190	5.6	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	86	50-150	08/28/13	Acceptable
n-Triacontane	89	50-150	08/28/13	Acceptable

Comments:

AGC0012472

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-04 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-005	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**130**	H	46	2.2	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**540**	O	190	5.3	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	96	50-150	08/28/13	Acceptable
n-Triacontane	101	50-150	08/28/13	Acceptable

Comments:

AGC0012473

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-04 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-006	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**280**	Y	45	2.2	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**750**	O	180	5.2	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	50-150	08/28/13	Acceptable
n-Triacontane	92	50-150	08/28/13	Acceptable

Comments:

AGC0012474

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-05 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-007	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**46**	Y	32	1.6	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**150**	O	130	3.7	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	50-150	08/28/13	Acceptable
n-Triacontane	86	50-150	08/28/13	Acceptable

Comments:

AGC0012475

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-05 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-008	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**250**	Y	37	1.8	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**640**	O	150	4.3	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	97	50-150	08/28/13	Acceptable
n-Triacontane	101	50-150	08/28/13	Acceptable

Comments:

AGC0012476

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-06 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-009	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**65**	Z	54	2.6	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**470**	Z	220	6.2	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	50-150	08/28/13	Acceptable
n-Triacontane	94	50-150	08/28/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-06 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-010	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**190**	Y	46	2.2	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**590**	O	190	5.3	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	96	50-150	08/28/13	Acceptable
n-Triacontane	98	50-150	08/28/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-03 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-011	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**51**	J	60	2.9	1	08/21/13	08/28/13	KWG1308781	
Residual Range Organics (RRO)	**430**	Z	240	6.9	1	08/21/13	08/28/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	93	50-150	08/28/13	Acceptable
n-Triacontane	98	50-150	08/28/13	Acceptable

Comments:

AGC0012479

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-C-03 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-012	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**93**	H	50	2.4	1	08/22/13	08/26/13	KWG1308837	
Residual Range Organics (RRO)	**480**	O	200	5.7	1	08/22/13	08/26/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	50-150	08/26/13	Acceptable
n-Triacontane	99	50-150	08/26/13	Acceptable

Comments:

AGC0012480

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-01	**Units:**	mg/Kg
Lab Code:	K1308343-013	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**55**	J	59	2.8	1	08/22/13	08/26/13	KWG1308837	
Residual Range Organics (RRO)	**480**	Z	240	6.8	1	08/22/13	08/26/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	83	50-150	08/26/13	Acceptable
n-Triacontane	89	50-150	08/26/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-02	**Units:**	mg/Kg
Lab Code:	K1308343-014	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**120**	H	53	2.6	1	08/22/13	08/26/13	KWG1308837	
Residual Range Organics (RRO)	**800**	O	220	6.2	1	08/22/13	08/26/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	80	50-150	08/26/13	Acceptable
n-Triacontane	93	50-150	08/26/13	Acceptable

Comments:

AGC0012482

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-03	**Units:**	mg/Kg
Lab Code:	K1308343-015	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**2500**	Z	55	2.7	1	08/22/13	08/26/13	KWG1308837	
Residual Range Organics (RRO)	**2500**	Z	220	6.4	1	08/22/13	08/26/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	130	50-150	08/26/13	Acceptable
n-Triacontane	88	50-150	08/26/13	Acceptable

Comments:

AGC0012483

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-04	**Units:**	mg/Kg
Lab Code:	K1308343-016	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**44**	H	33	1.6	1	08/22/13	08/26/13	KWG1308837	
Residual Range Organics (RRO)	**440**	O	130	3.8	1	08/22/13	08/26/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	84	50-150	08/26/13	Acceptable
n-Triacontane	89	50-150	08/26/13	Acceptable

Comments:

AGC0012484

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-07	**Units:**	mg/Kg
Lab Code:	K1308343-019	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**42**	H	32	1.6	1	08/22/13	08/27/13	KWG1308837	
Residual Range Organics (RRO)	**420**	O	130	3.8	1	08/22/13	08/27/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	96	50-150	08/27/13	Acceptable
n-Triacontane	101	50-150	08/27/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-09	**Units:**	mg/Kg
Lab Code:	K1308343-021	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**50**	H	46	2.2	1	08/22/13	08/27/13	KWG1308837	
Residual Range Organics (RRO)	**350**	O	190	5.4	1	08/22/13	08/27/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	86	50-150	08/27/13	Acceptable
n-Triacontane	90	50-150	08/27/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Diesel and Residual Range Organics

Sample Name:	AG-G-03 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-022	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	**1400**	Y	45	2.2	1	08/22/13	08/26/13	KWG1308837	
Residual Range Organics (RRO)	**2200**	O	180	5.3	1	08/22/13	08/26/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	85	50-150	08/26/13	Acceptable
n-Triacontane	88	50-150	08/26/13	Acceptable

Comments:

AGC0012487

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	mg/Kg
Lab Code:	KWG1308781-4	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	25	1.2	1	08/21/13	08/26/13	KWG1308781	
Residual Range Organics (RRO)	**3.1**	J	99	2.9	1	08/21/13	08/26/13	KWG1308781	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	83	50-150	08/26/13	Acceptable
n-Triacontane	85	50-150	08/26/13	Acceptable

Comments:

AGC0012488

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Diesel and Residual Range Organics

Sample Name:	Method Blank	**Units:**	mg/Kg
Lab Code:	KWG1308837-4	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Diesel Range Organics (DRO)	ND	U	25	1.2	1	08/22/13	08/27/13	KWG1308837	
Residual Range Organics (RRO)	ND	U	99	2.9	1	08/22/13	08/27/13	KWG1308837	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
o-Terphenyl	89	50-150	08/27/13	Acceptable
n-Triacontane	94	50-150	08/27/13	Acceptable

Comments:

AGC0012489

Client: GeoSyntec Consultants **Service Request:** K1308343
Project: Ash Grove/PNG0580
Sample Matrix: Soil

Surrogate Recovery Summary
Diesel and Residual Range Organics

Extraction Method: EPA 3550B **Units:** Percent
Analysis Method: NWTPH-Dx **Level:** Low

Sample Name	Lab Code	Sur1	Sur2
AG-C-01 0-30	K1308343-001	84	88
AG-C-01 30-90	K1308343-002	85	87
AG-C-02 0-30	K1308343-003	96	100
AG-C-02 30-90	K1308343-004	86	89
AG-C-04 0-30	K1308343-005	96	101
AG-C-04 30-90	K1308343-006	89	92
AG-C-05 0-30	K1308343-007	84	86
AG-C-05 30-90	K1308343-008	97	101
AG-C-06 0-30	K1308343-009	89	94
AG-C-06 30-90	K1308343-010	96	98
AG-C-03 0-30	K1308343-011	93	98
AG-C-03 30-90	K1308343-012	89	99
AG-G-01	K1308343-013	83	89
AG-G-02	K1308343-014	80	93
AG-G-03	K1308343-015	130	88
AG-G-04	K1308343-016	84	89
AG-G-07	K1308343-019	96	101
AG-G-09	K1308343-021	86	90
AG-G-03 30-90	K1308343-022	85	88
Batch QC	K1308376-001	79	82
AG-C-01 0-30DUP	KWG1308781-1	88	91
AG-C-03 0-30DUP	KWG1308781-2	98	103
Batch QCDUP	KWG1308837-1	81	84
AG-C-03 30-90DUP	KWG1308837-2	79	84
Method Blank	KWG1308781-4	83	85
Method Blank	KWG1308837-4	89	94
Lab Control Sample	KWG1308781-3	89	89
Lab Control Sample	KWG1308837-3	94	96

Surrogate Recovery Control Limits (%)

Sur1	= o-Terphenyl	50-150
Sur2	= n-Triacontane	50-150

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

AGC0012490

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/21/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/26/2013

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	AG-C-01 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-001	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1308781

				AG-C-01 0-30DUP KWG1308781-1 Duplicate Sample			
Analyte Name	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**Relative Percent Difference**	**RPD Limit**
Diesel Range Organics (DRO)	58	2.8	44	53	48	18 #	40
Residual Range Organics (RRO)	240	6.7	380	390	380	3 #	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

AGC0012491

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/21/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/28/2013

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	AG-C-03 0-30	**Units:**	mg/Kg
Lab Code:	K1308343-011	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1308781

				AG-C-03 0-30DUP KWG1308781-2 Duplicate Sample			
Analyte Name	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**Relative Percent Difference**	**RPD Limit**
Diesel Range Organics (DRO)	60	2.9	51	62	56	20 #	40
Residual Range Organics (RRO)	240	6.9	430	550	490	25 #	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

AGC0012492

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/22/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/27/2013

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	Batch QC	**Units:**	mg/Kg
Lab Code:	K1308376-001	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1308837

				Batch QCDUP KWG1308837-1			
				Duplicate Sample		**Relative**	
Analyte Name	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**Percent Difference**	**RPD Limit**
Diesel Range Organics (DRO)	35	1.7	2.5	2.0	2.2	20 #	40
Residual Range Organics (RRO)	140	4.1	5.2	ND	NC	NC #	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/22/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/26/2013

Duplicate Sample Summary
Diesel and Residual Range Organics

Sample Name:	AG-C-03 30-90	**Units:**	mg/Kg
Lab Code:	K1308343-012	**Basis:**	Dry
Extraction Method:	EPA 3550B	**Level:**	Low
Analysis Method:	NWTPH-Dx	**Extraction Lot:**	KWG1308837

				AG-C-03 30-90DUP KWG1308837-2 Duplicate Sample			
Analyte Name	**MRL**	**MDL**	**Sample Result**	**Result**	**Average**	**Relative Percent Difference**	**RPD Limit**
Diesel Range Organics (DRO)	50	2.4	93	90	91	3 #	40
Residual Range Organics (RRO)	200	5.8	480	450	460	5	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/21/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/26/2013

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	EPA 3550B	**Units:**	mg/Kg
Analysis Method:	NWTPH-Dx	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1308781

	Lab Control Sample KWG1308781-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	227	267	85	42-134
Residual Range Organics (RRO)	137	133	103	48-141

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/22/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/27/2013

Lab Control Spike Summary
Diesel and Residual Range Organics

Extraction Method:	EPA 3550B	**Units:**	mg/Kg
Analysis Method:	NWTPH-Dx	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1308837

	Lab Control Sample KWG1308837-3 Lab Control Spike			
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**
Diesel Range Organics (DRO)	250	267	94	42-134
Residual Range Organics (RRO)	153	133	114	48-141

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-01 0-30	Units:	mg/Kg (ppm)
Lab Code:	K1308343-001	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	46	1	8/21/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	120	1	8/21/2013	8/26/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	230	1	8/21/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-01 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-002	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	46	1	8/21/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	120	1	8/21/2013	8/26/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	230	1	8/21/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-02 0-30	Units:	mg/Kg (ppm)
Lab Code:	K1308343-003	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	43	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	110	1	8/21/2013	8/28/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	220	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-02 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-004	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	38	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	95	1	8/21/2013	8/28/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	190	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-04 0-30	Units:	mg/Kg (ppm)
Lab Code:	K1308343-005	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	37	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	91	1	8/21/2013	8/28/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	190	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-04 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-006	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	36	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	90	1	8/21/2013	8/28/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	180	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-05 0-30	Units:	mg/Kg (ppm)
Lab Code:	K1308343-007	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	26	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	63	1	8/21/2013	8/28/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	130	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-05 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-008	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	30	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	73	1	8/21/2013	8/28/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	150	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-06 0-30	Units:	mg/Kg (ppm)
Lab Code:	K1308343-009	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	43	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	110	1	8/21/2013	8/28/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	220	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-06 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-010	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	37	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	91	1	8/21/2013	8/28/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	190	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-03 0-30	Units:	mg/Kg (ppm)
Lab Code:	K1308343-011	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	48	1	8/21/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	120	1	8/21/2013	8/28/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	240	1	8/21/2013	8/28/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-C-03 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-012	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	40	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	99	1	8/22/2013	8/26/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	200	1	8/22/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-01	Units:	mg/Kg (ppm)
Lab Code:	K1308343-013	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	47	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	120	1	8/22/2013	8/26/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	240	1	8/22/2013	8/26/2013	D	

D — Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-02	Units:	mg/Kg (ppm)
Lab Code:	K1308343-014	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	43	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	110	1	8/22/2013	8/26/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	220	1	8/22/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-03	Units:	mg/Kg (ppm)
Lab Code:	K1308343-015	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	44	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	110	1	8/22/2013	8/26/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	220	1	8/22/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-04	Units:	mg/Kg (ppm)
Lab Code:	K1308343-016	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	26	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	65	1	8/22/2013	8/26/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	130	1	8/22/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-05	Units:	mg/Kg (ppm)
Lab Code:	K1308343-017	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	32	1	8/22/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	79	1	8/22/2013	8/27/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	160	1	8/22/2013	8/27/2013	ND	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-06	Units:	mg/Kg (ppm)
Lab Code:	K1308343-018	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	29	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	71	1	8/22/2013	8/27/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	150	1	8/22/2013	8/27/2013	ND	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/14/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-07	Units:	mg/Kg (ppm)
Lab Code:	K1308343-019	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	26	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	64	1	8/22/2013	8/27/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	130	1	8/22/2013	8/27/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-08	Units:	mg/Kg (ppm)
Lab Code:	K1308343-020	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	24	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	60	1	8/22/2013	8/27/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	120	1	8/22/2013	8/27/2013	ND	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-09	Units:	mg/Kg (ppm)
Lab Code:	K1308343-021	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	37	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	92	1	8/22/2013	8/27/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	190	1	8/22/2013	8/27/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	8/15/2013
Sample Matrix:	Soil	**Date Received:**	8/16/2013

Hydrocarbon Identification Screen

Sample Name:	AG-G-03 30-90	Units:	mg/Kg (ppm)
Lab Code:	K1308343-022	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	36	1	8/22/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	90	1	8/22/2013	8/26/2013	D	
Residual Range Organics	EPA 3550B	NWTPH-HCID	180	1	8/22/2013	8/26/2013	D	

D	Detected at or above the method reporting limit. Follow-up analyses are required for quantitative results.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Hydrocarbon Identification Screen

Sample Name:	Method Blank	Units:	mg/Kg (ppm)
Lab Code:	KWG1308781-4	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	20	1	8/21/2013	8/26/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	50	1	8/21/2013	8/26/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	99	1	8/21/2013	8/26/2013	ND	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Hydrocarbon Identification Screen

Sample Name:	Method Blank	Units:	mg/Kg (ppm)
Lab Code:	KWG1308837-4	Basis:	Dry
Test Notes:			

Analyte	Prep Method	Analysis Method	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
Gasoline Range Organics	EPA 3550B	NWTPH-HCID	20	1	8/22/2013	8/27/2013	ND	
Diesel Range Organics	EPA 3550B	NWTPH-HCID	50	1	8/22/2013	8/27/2013	ND	
Residual Range Organics	EPA 3550B	NWTPH-HCID	99	1	8/22/2013	8/27/2013	ND	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Extracted:	8/21-22/2013
		Date Analyzed:	8/26-28/2013

Surrogate Recovery Summary
Hydrocarbon Identification Screen

Prep Method:	EPA 3550B	Units:	PERCENT
Analysis Method:	NWTPH-HCID	Basis:	NA

Sample Name	Lab Code	Test Notes	Percent Recovery		
			4-Bromofluorobenzene	o-Terphenyl	n-Triacontane
AG-C-01 0-30	K1308343-001		90	84	88
AG-C-01 30-90	K1308343-002		90	85	87
AG-C-02 0-30	K1308343-003		96	96	100
AG-C-02 30-90	K1308343-004		99	86	89
AG-C-04 0-30	K1308343-005		91	96	101
AG-C-04 30-90	K1308343-006		91	89	92
AG-C-05 0-30	K1308343-007		92	84	86
AG-C-05 30-90	K1308343-008		98	97	101
AG-C-06 0-30	K1308343-009		91	89	94
AG-C-06 30-90	K1308343-010		96	96	98
AG-C-03 0-30	K1308343-011		93	93	98
AG-C-03 30-90	K1308343-012		99	89	99
AG-G-01	K1308343-013		91	83	89
AG-G-02	K1308343-014		87	80	93
AG-G-03	K1308343-015		91	130	88
AG-G-04	K1308343-016		94	84	89
AG-G-05	K1308343-017		87	82	87
AG-G-06	K1308343-018		83	90	94
AG-G-07	K1308343-019		97	96	101
AG-G-08	K1308343-020		90	93	99
AG-G-09	K1308343-021		88	86	90
AG-G-03 30-90	K1308343-022		86	85	88
Method Blank	KWG1308781-4		90	83	85
Method Blank	KWG1308837-4		88	89	94
		Acceptance Limits:	20-150	50-150	50-150

AGC0012521

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-01 0-30	**Units:**	ug/Kg
Lab Code:	K1308343-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**12**		5.8	0.69	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	**6.0**		5.8	0.53	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	**6.0**		5.8	0.68	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	**6.0**		5.8	0.87	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	**3.3**	J	5.8	0.72	1	08/21/13	08/23/13	KWG1308734	
Fluorene	**7.2**		5.8	0.70	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	**37**		5.8	1.6	1	08/21/13	08/23/13	KWG1308734	
Anthracene	**12**		5.8	0.67	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	**71**		5.8	1.2	1	08/21/13	08/23/13	KWG1308734	
Pyrene	**81**		5.8	0.87	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	**37**		5.8	0.83	1	08/21/13	08/23/13	KWG1308734	
Chrysene	**56**		5.8	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	**58**		5.8	1.1	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	**22**		5.8	1.0	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	**54**		5.8	0.87	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**42**		5.8	1.0	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	**7.2**		5.8	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**48**		5.8	0.98	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	58	17-104	08/23/13	Acceptable
Fluoranthene-d10	64	27-106	08/23/13	Acceptable
Terphenyl-d14	75	35-109	08/23/13	Acceptable

Comments:

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-01 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**200**		5.8	0.69	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**170**		5.8	0.53	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**120**		5.8	0.68	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**490**		5.8	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**89**	X	5.8	0.72	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**410**		5.8	0.70	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**3400**	D	29	8.0	5	08/21/13	08/26/13	KWG1308734	
Anthracene	**480**		5.8	0.67	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**1900**		5.8	1.2	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**2800**	D	29	4.4	5	08/21/13	08/26/13	KWG1308734	
Benz(a)anthracene	**950**		5.8	0.83	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**1100**		5.8	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**790**		5.8	1.1	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**260**		5.8	1.0	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**920**		5.8	0.87	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**590**		5.8	1.0	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**94**		5.8	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**660**		5.8	0.98	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	76	17-104	08/24/13	Acceptable
Fluoranthene-d10	87	27-106	08/24/13	Acceptable
Terphenyl-d14	87	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-02 0-30	**Units:**	ug/Kg
Lab Code:	K1308343-003	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**14**		5.3	0.64	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	**6.2**		5.3	0.49	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	**7.4**		5.3	0.63	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	**11**		5.3	0.81	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	**5.0**	J	5.3	0.67	1	08/21/13	08/23/13	KWG1308734	
Fluorene	**10**		5.3	0.65	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	**53**		5.3	1.5	1	08/21/13	08/23/13	KWG1308734	
Anthracene	**12**		5.3	0.62	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	**78**		5.3	1.1	1	08/21/13	08/23/13	KWG1308734	
Pyrene	**86**		5.3	0.81	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	**32**		5.3	0.77	1	08/21/13	08/23/13	KWG1308734	
Chrysene	**49**		5.3	0.85	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	**52**		5.3	0.98	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	**17**		5.3	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	**52**		5.3	0.81	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**43**		5.3	0.92	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	**6.8**		5.3	0.85	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**50**		5.3	0.90	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	67	17-104	08/23/13	Acceptable
Fluoranthene-d10	76	27-106	08/23/13	Acceptable
Terphenyl-d14	89	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-02 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-004	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**170**		4.8	0.60	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	**100**		4.8	0.46	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	**31**		4.8	0.59	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	**230**		4.8	0.76	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	**58**		4.8	0.63	1	08/21/13	08/23/13	KWG1308734	
Fluorene	**150**		4.8	0.61	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	**640**		4.8	1.4	1	08/21/13	08/23/13	KWG1308734	
Anthracene	**89**		4.8	0.58	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	**610**		4.8	0.98	1	08/21/13	08/23/13	KWG1308734	
Pyrene	**590**		4.8	0.76	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	**210**		4.8	0.72	1	08/21/13	08/23/13	KWG1308734	
Chrysene	**280**		4.8	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	**230**		4.8	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	**84**		4.8	0.87	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	**240**		4.8	0.76	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**190**		4.8	0.87	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	**31**		4.8	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**210**		4.8	0.85	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	63	17-104	08/23/13	Acceptable
Fluoranthene-d10	76	27-106	08/23/13	Acceptable
Terphenyl-d14	80	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-04 0-30	**Units:**	ug/Kg
Lab Code:	K1308343-005	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**51**		4.5	0.60	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	**43**		4.5	0.46	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	**9.4**		4.5	0.59	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	**120**		4.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	**20**		4.5	0.63	1	08/21/13	08/23/13	KWG1308734	
Fluorene	**100**		4.5	0.61	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	**320**		4.5	1.4	1	08/21/13	08/23/13	KWG1308734	
Anthracene	**37**		4.5	0.58	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	**210**		4.5	0.98	1	08/21/13	08/23/13	KWG1308734	
Pyrene	**220**		4.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	**62**		4.5	0.72	1	08/21/13	08/23/13	KWG1308734	
Chrysene	**87**		4.5	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	**74**		4.5	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	**25**		4.5	0.87	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	**72**		4.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**58**		4.5	0.87	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	**10**		4.5	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**66**		4.5	0.85	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	65	17-104	08/23/13	Acceptable
Fluoranthene-d10	74	27-106	08/23/13	Acceptable
Terphenyl-d14	79	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-04 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-006	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**59**		4.5	0.60	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	**48**		4.5	0.46	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	**25**		4.5	0.59	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	**140**		4.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	**28**		4.5	0.63	1	08/21/13	08/23/13	KWG1308734	
Fluorene	**120**		4.5	0.61	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	**920**		4.5	1.4	1	08/21/13	08/23/13	KWG1308734	
Anthracene	**140**		4.5	0.58	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	**600**		4.5	0.98	1	08/21/13	08/23/13	KWG1308734	
Pyrene	**670**		4.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	**190**		4.5	0.72	1	08/21/13	08/23/13	KWG1308734	
Chrysene	**270**		4.5	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	**210**		4.5	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	**74**		4.5	0.87	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	**250**		4.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**200**		4.5	0.87	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	**28**		4.5	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**230**		4.5	0.85	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	50	17-104	08/23/13	Acceptable
Fluoranthene-d10	59	27-106	08/23/13	Acceptable
Terphenyl-d14	63	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-05 0-30	**Units:**	ug/Kg
Lab Code:	K1308343-007	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**8.4**		3.2	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**5.1**		3.2	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**4.3**		3.2	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**6.0**		3.2	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**1.4**	J	3.2	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**3.1**	J	3.2	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**27**		3.2	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**7.4**		3.2	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**36**		3.2	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**88**		3.2	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**60**		3.2	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**67**		3.2	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**79**		3.2	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**28**		3.2	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**69**		3.2	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**40**		3.2	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**6.6**		3.2	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**43**		3.2	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	59	17-104	08/24/13	Acceptable
Fluoranthene-d10	64	27-106	08/24/13	Acceptable
Terphenyl-d14	74	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-05 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-008	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**97**		3.6	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**46**		3.6	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**26**		3.6	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**45**		3.6	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**11**	X	3.6	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**25**		3.6	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**330**		3.6	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**52**		3.6	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**370**		3.6	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**600**		3.6	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**180**		3.6	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**210**		3.6	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**230**		3.6	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**79**		3.6	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**260**		3.6	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**210**		3.6	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**26**		3.6	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**250**		3.6	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	70	17-104	08/24/13	Acceptable
Fluoranthene-d10	83	27-106	08/24/13	Acceptable
Terphenyl-d14	85	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-06 0-30	**Units:**	ug/Kg
Lab Code:	K1308343-009	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**31**		5.4	0.64	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**22**		5.4	0.49	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**13**		5.4	0.63	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**20**		5.4	0.81	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**12**		5.4	0.67	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**26**		5.4	0.65	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**130**		5.4	1.5	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**31**		5.4	0.62	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**210**		5.4	1.1	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**220**		5.4	0.81	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**78**		5.4	0.77	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**120**		5.4	0.85	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**120**		5.4	0.98	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**43**		5.4	0.93	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**110**		5.4	0.81	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**86**		5.4	0.93	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**15**		5.4	0.85	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**93**		5.4	0.91	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	62	17-104	08/24/13	Acceptable
Fluoranthene-d10	68	27-106	08/24/13	Acceptable
Terphenyl-d14	77	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-06 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-010	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**90**		4.6	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**76**		4.6	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**36**		4.6	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**260**		4.6	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**55**	X	4.6	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**190**		4.6	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**1000**		4.6	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**190**		4.6	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**560**		4.6	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**710**		4.6	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**240**		4.6	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**280**		4.6	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**240**		4.6	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**90**		4.6	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**250**		4.6	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**180**		4.6	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**31**		4.6	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**200**		4.6	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	72	17-104	08/24/13	Acceptable
Fluoranthene-d10	83	27-106	08/24/13	Acceptable
Terphenyl-d14	89	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-03 0-30	**Units:**	ug/Kg
Lab Code:	K1308343-011	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**14**		6.0	0.72	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**9.7**		6.0	0.55	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**8.7**		6.0	0.71	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**7.5**		6.0	0.91	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**5.7**	J	6.0	0.75	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**15**		6.0	0.73	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**79**		6.0	1.7	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**27**		6.0	0.69	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**160**		6.0	1.2	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**160**		6.0	0.91	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**67**		6.0	0.86	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**150**		6.0	0.96	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**94**		6.0	1.1	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**34**		6.0	1.1	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**72**		6.0	0.91	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**55**		6.0	1.1	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**8.7**		6.0	0.96	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**59**		6.0	1.1	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	69	17-104	08/24/13	Acceptable
Fluoranthene-d10	75	27-106	08/24/13	Acceptable
Terphenyl-d14	88	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-03 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-012	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**24**		4.9	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**11**		4.9	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**9.9**		4.9	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**19**		4.9	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**6.5**		4.9	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**15**		4.9	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**95**		4.9	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**23**		4.9	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**200**		4.9	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**200**		4.9	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**96**		4.9	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**130**		4.9	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**150**		4.9	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**54**		4.9	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**130**		4.9	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**99**		4.9	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**18**		4.9	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**99**		4.9	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	69	17-104	08/24/13	Acceptable
Fluoranthene-d10	79	27-106	08/24/13	Acceptable
Terphenyl-d14	86	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-01	**Units:**	ug/Kg
Lab Code:	K1308343-013	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**8.9**		5.9	0.71	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**4.4**	J	5.9	0.54	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**6.1**		5.9	0.70	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**6.3**		5.9	0.89	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**3.8**	J	5.9	0.74	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**7.4**		5.9	0.72	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**40**		5.9	1.7	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**12**		5.9	0.68	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**110**		5.9	1.2	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**120**		5.9	0.89	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**38**		5.9	0.85	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**70**		5.9	0.94	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**71**		5.9	1.1	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**26**		5.9	1.1	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**57**		5.9	0.89	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**45**		5.9	1.1	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**7.7**		5.9	0.94	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**49**		5.9	1.0	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	62	17-104	08/24/13	Acceptable
Fluoranthene-d10	69	27-106	08/24/13	Acceptable
Terphenyl-d14	80	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-02	**Units:**	ug/Kg
Lab Code:	K1308343-014	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**35**		5.3	0.64	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**33**		5.3	0.49	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**12**		5.3	0.63	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**46**		5.3	0.81	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**20**		5.3	0.67	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**48**		5.3	0.65	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**170**		5.3	1.5	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**280**		5.3	0.62	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**240**		5.3	1.1	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**250**		5.3	0.81	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**120**		5.3	0.76	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**220**		5.3	0.85	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**190**		5.3	0.97	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**70**		5.3	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**140**		5.3	0.81	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**100**		5.3	0.92	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**20**		5.3	0.85	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**100**		5.3	0.90	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	70	17-104	08/24/13	Acceptable
Fluoranthene-d10	81	27-106	08/24/13	Acceptable
Terphenyl-d14	91	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-03	**Units:**	ug/Kg
Lab Code:	K1308343-015	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**720**	D	280	33	50	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**490**	D	280	26	50	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**2000**	D	280	33	50	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**12000**	D	280	42	50	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	ND	Ui	1100	1100	50	08/21/13	08/24/13	KWG1308734	
Fluorene	**12000**	D	280	34	50	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**100000**	D	550	160	100	08/21/13	08/26/13	KWG1308734	
Anthracene	**21000**	D	280	32	50	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**45000**	D	280	54	50	08/21/13	08/24/13	KWG1308734	
Pyrene	**58000**	D	280	42	50	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**17000**	D	280	40	50	08/21/13	08/24/13	KWG1308734	
Chrysene	**22000**	D	280	44	50	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**10000**	D	280	51	50	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**3600**	D	280	48	50	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**14000**	D	280	42	50	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**7800**	D	280	48	50	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**1400**	D	280	44	50	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**8900**	D	280	47	50	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	108	17-104	08/24/13	Outside Control Limits
Fluoranthene-d10	114	27-106	08/24/13	Outside Control Limits
Terphenyl-d14	112	35-109	08/24/13	Outside Control Limits

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-04	**Units:**	ug/Kg
Lab Code:	K1308343-016	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**6.2**		3.2	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**12**		3.2	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**2.2**	J	3.2	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**22**		3.2	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**9.6**		3.2	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**19**		3.2	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**73**		3.2	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**24**		3.2	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**120**		3.2	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**110**		3.2	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**100**		3.2	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**89**		3.2	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**130**		3.2	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**45**		3.2	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**95**		3.2	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**56**		3.2	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**13**		3.2	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**48**		3.2	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	74	17-104	08/24/13	Acceptable
Fluoranthene-d10	81	27-106	08/24/13	Acceptable
Terphenyl-d14	92	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-05	**Units:**	ug/Kg
Lab Code:	K1308343-017	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.91**	J	4.0	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**0.54**	J	4.0	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	ND	U	4.0	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	ND	U	4.0	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	ND	U	4.0	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	ND	U	4.0	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	ND	U	4.0	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	ND	U	4.0	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	ND	U	4.0	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	ND	U	4.0	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	ND	U	4.0	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	ND	U	4.0	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	ND	U	4.0	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	ND	U	4.0	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	ND	U	4.0	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	ND	U	4.0	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	ND	U	4.0	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	ND	U	4.0	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	74	17-104	08/24/13	Acceptable
Fluoranthene-d10	79	27-106	08/24/13	Acceptable
Terphenyl-d14	92	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-06	**Units:**	ug/Kg
Lab Code:	K1308343-018	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**1.4**	J	3.5	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**0.50**	J	3.5	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	**1.6**	J	3.5	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	**3.3**	J	3.5	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	ND	U	3.5	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**0.95**	J	3.5	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**29**		3.5	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**1.6**	J	3.5	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**38**		3.5	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**44**		3.5	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**14**		3.5	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**15**		3.5	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**11**		3.5	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**4.0**		3.5	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**12**		3.5	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**8.4**		3.5	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**1.1**	J	3.5	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**9.6**		3.5	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	64	17-104	08/24/13	Acceptable
Fluoranthene-d10	67	27-106	08/24/13	Acceptable
Terphenyl-d14	79	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/14/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-07	**Units:**	ug/Kg
Lab Code:	K1308343-019	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**2.5**	J	3.2	0.60	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	**1.7**	J	3.2	0.46	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	**1.4**	J	3.2	0.59	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	**3.6**		3.2	0.76	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	**3.5**		3.2	0.63	1	08/21/13	08/23/13	KWG1308734	
Fluorene	**4.9**		3.2	0.61	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	**26**		3.2	1.4	1	08/21/13	08/23/13	KWG1308734	
Anthracene	**5.4**		3.2	0.58	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	**38**		3.2	0.98	1	08/21/13	08/23/13	KWG1308734	
Pyrene	**33**		3.2	0.76	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	**11**		3.2	0.72	1	08/21/13	08/23/13	KWG1308734	
Chrysene	**27**		3.2	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	**19**		3.2	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	**6.8**		3.2	0.87	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	**9.8**		3.2	0.76	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**9.7**		3.2	0.87	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	**2.3**	J	3.2	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**11**		3.2	0.85	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	62	17-104	08/23/13	Acceptable
Fluoranthene-d10	68	27-106	08/23/13	Acceptable
Terphenyl-d14	81	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-08	**Units:**	ug/Kg
Lab Code:	K1308343-020	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**1.4**	J	3.0	0.60	1	08/21/13	08/24/13	KWG1308734	
2-Methylnaphthalene	**0.84**	J	3.0	0.46	1	08/21/13	08/24/13	KWG1308734	
Acenaphthylene	ND	U	3.0	0.59	1	08/21/13	08/24/13	KWG1308734	
Acenaphthene	ND	U	3.0	0.76	1	08/21/13	08/24/13	KWG1308734	
Dibenzofuran	**1.2**	J	3.0	0.63	1	08/21/13	08/24/13	KWG1308734	
Fluorene	**1.0**	J	3.0	0.61	1	08/21/13	08/24/13	KWG1308734	
Phenanthrene	**11**		3.0	1.4	1	08/21/13	08/24/13	KWG1308734	
Anthracene	**1.5**	J	3.0	0.58	1	08/21/13	08/24/13	KWG1308734	
Fluoranthene	**34**		3.0	0.98	1	08/21/13	08/24/13	KWG1308734	
Pyrene	**30**		3.0	0.76	1	08/21/13	08/24/13	KWG1308734	
Benz(a)anthracene	**7.3**		3.0	0.72	1	08/21/13	08/24/13	KWG1308734	
Chrysene	**16**		3.0	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(b)fluoranthene	**18**		3.0	0.92	1	08/21/13	08/24/13	KWG1308734	
Benzo(k)fluoranthene	**6.2**		3.0	0.87	1	08/21/13	08/24/13	KWG1308734	
Benzo(a)pyrene	**6.9**		3.0	0.76	1	08/21/13	08/24/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	**4.9**		3.0	0.87	1	08/21/13	08/24/13	KWG1308734	
Dibenz(a,h)anthracene	**1.0**	J	3.0	0.80	1	08/21/13	08/24/13	KWG1308734	
Benzo(g,h,i)perylene	**4.2**		3.0	0.85	1	08/21/13	08/24/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	78	17-104	08/24/13	Acceptable
Fluoranthene-d10	83	27-106	08/24/13	Acceptable
Terphenyl-d14	98	35-109	08/24/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-09	**Units:**	ug/Kg
Lab Code:	K1308343-021	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**14**		4.6	0.60	1	08/21/13	08/23/13	KWG1308653	
2-Methylnaphthalene	**6.8**		4.6	0.46	1	08/21/13	08/23/13	KWG1308653	
Acenaphthylene	**5.2**		4.6	0.59	1	08/21/13	08/23/13	KWG1308653	
Acenaphthene	**15**		4.6	0.76	1	08/21/13	08/23/13	KWG1308653	
Dibenzofuran	**6.4**		4.6	0.63	1	08/21/13	08/23/13	KWG1308653	
Fluorene	**16**		4.6	0.61	1	08/21/13	08/23/13	KWG1308653	
Phenanthrene	**73**		4.6	1.4	1	08/21/13	08/23/13	KWG1308653	
Anthracene	**18**		4.6	0.58	1	08/21/13	08/23/13	KWG1308653	
Fluoranthene	**130**		4.6	0.98	1	08/21/13	08/23/13	KWG1308653	
Pyrene	**130**		4.6	0.76	1	08/21/13	08/23/13	KWG1308653	
Benz(a)anthracene	**44**		4.6	0.72	1	08/21/13	08/23/13	KWG1308653	
Chrysene	**71**		4.6	0.80	1	08/21/13	08/23/13	KWG1308653	
Benzo(b)fluoranthene	**60**		4.6	0.92	1	08/21/13	08/23/13	KWG1308653	
Benzo(k)fluoranthene	**24**		4.6	0.87	1	08/21/13	08/23/13	KWG1308653	
Benzo(a)pyrene	**50**		4.6	0.76	1	08/21/13	08/23/13	KWG1308653	
Indeno(1,2,3-cd)pyrene	**37**		4.6	0.87	1	08/21/13	08/23/13	KWG1308653	
Dibenz(a,h)anthracene	**6.2**		4.6	0.80	1	08/21/13	08/23/13	KWG1308653	
Benzo(g,h,i)perylene	**45**		4.6	0.85	1	08/21/13	08/23/13	KWG1308653	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	64	17-104	08/23/13	Acceptable
Fluoranthene-d10	74	27-106	08/23/13	Acceptable
Terphenyl-d14	81	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-03 30-90	**Units:**	ug/Kg
Lab Code:	K1308343-022	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**590**	D	89	11	10	08/21/13	08/23/13	KWG1308653	
2-Methylnaphthalene	**420**	D	89	8.2	10	08/21/13	08/23/13	KWG1308653	
Acenaphthylene	**230**	DX	89	11	10	08/21/13	08/23/13	KWG1308653	
Acenaphthene	**1800**	D	89	14	10	08/21/13	08/23/13	KWG1308653	
Dibenzofuran	**400**	D	89	12	10	08/21/13	08/23/13	KWG1308653	
Fluorene	**1700**	D	89	11	10	08/21/13	08/23/13	KWG1308653	
Phenanthrene	**7600**	D	89	25	10	08/21/13	08/23/13	KWG1308653	
Anthracene	**1400**	D	89	11	10	08/21/13	08/23/13	KWG1308653	
Fluoranthene	**3100**	D	89	18	10	08/21/13	08/23/13	KWG1308653	
Pyrene	**4300**	D	89	14	10	08/21/13	08/23/13	KWG1308653	
Benz(a)anthracene	**1200**	D	89	13	10	08/21/13	08/23/13	KWG1308653	
Chrysene	**1400**	D	89	15	10	08/21/13	08/23/13	KWG1308653	
Benzo(b)fluoranthene	**820**	D	89	17	10	08/21/13	08/23/13	KWG1308653	
Benzo(k)fluoranthene	**260**	D	89	16	10	08/21/13	08/23/13	KWG1308653	
Benzo(a)pyrene	**950**	D	89	14	10	08/21/13	08/23/13	KWG1308653	
Indeno(1,2,3-cd)pyrene	**590**	D	89	16	10	08/21/13	08/23/13	KWG1308653	
Dibenz(a,h)anthracene	**110**	D	89	15	10	08/21/13	08/23/13	KWG1308653	
Benzo(g,h,i)perylene	**750**	D	89	16	10	08/21/13	08/23/13	KWG1308653	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	93	17-104	08/23/13	Acceptable
Fluoranthene-d10	91	27-106	08/23/13	Acceptable
Terphenyl-d14	105	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-C-01 45	**Units:**	ug/Kg
Lab Code:	K1308343-023	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**56**		4.4	0.60	1	08/21/13	08/23/13	KWG1308653	
2-Methylnaphthalene	**34**		4.4	0.46	1	08/21/13	08/23/13	KWG1308653	
Acenaphthylene	**16**		4.4	0.59	1	08/21/13	08/23/13	KWG1308653	
Acenaphthene	**68**		4.4	0.76	1	08/21/13	08/23/13	KWG1308653	
Dibenzofuran	**16**		4.4	0.63	1	08/21/13	08/23/13	KWG1308653	
Fluorene	**45**		4.4	0.61	1	08/21/13	08/23/13	KWG1308653	
Phenanthrene	**260**		4.4	1.4	1	08/21/13	08/23/13	KWG1308653	
Anthracene	**46**		4.4	0.58	1	08/21/13	08/23/13	KWG1308653	
Fluoranthene	**240**		4.4	0.98	1	08/21/13	08/23/13	KWG1308653	
Pyrene	**290**		4.4	0.76	1	08/21/13	08/23/13	KWG1308653	
Benz(a)anthracene	**95**		4.4	0.72	1	08/21/13	08/23/13	KWG1308653	
Chrysene	**120**		4.4	0.80	1	08/21/13	08/23/13	KWG1308653	
Benzo(b)fluoranthene	**120**		4.4	0.92	1	08/21/13	08/23/13	KWG1308653	
Benzo(k)fluoranthene	**42**		4.4	0.87	1	08/21/13	08/23/13	KWG1308653	
Benzo(a)pyrene	**120**		4.4	0.76	1	08/21/13	08/23/13	KWG1308653	
Indeno(1,2,3-cd)pyrene	**94**		4.4	0.87	1	08/21/13	08/23/13	KWG1308653	
Dibenz(a,h)anthracene	**15**		4.4	0.80	1	08/21/13	08/23/13	KWG1308653	
Benzo(g,h,i)perylene	**110**		4.4	0.85	1	08/21/13	08/23/13	KWG1308653	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	76	17-104	08/23/13	Acceptable
Fluoranthene-d10	89	27-106	08/23/13	Acceptable
Terphenyl-d14	94	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	08/15/2013
Sample Matrix:	Soil	**Date Received:**	08/16/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-03 70-90	**Units:**	ug/Kg
Lab Code:	K1308343-024	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**610**	D	170	20	20	08/21/13	08/24/13	KWG1308653	
2-Methylnaphthalene	**510**	D	170	16	20	08/21/13	08/24/13	KWG1308653	
Acenaphthylene	ND	Ui	350	350	20	08/21/13	08/24/13	KWG1308653	
Acenaphthene	**2900**	D	170	26	20	08/21/13	08/24/13	KWG1308653	
Dibenzofuran	ND	Ui	1300	1300	20	08/21/13	08/24/13	KWG1308653	
Fluorene	**3900**	D	170	21	20	08/21/13	08/24/13	KWG1308653	
Phenanthrene	**13000**	D	170	47	20	08/21/13	08/24/13	KWG1308653	
Anthracene	**4200**	D	170	20	20	08/21/13	08/24/13	KWG1308653	
Fluoranthene	**3900**	D	170	33	20	08/21/13	08/24/13	KWG1308653	
Pyrene	**6700**	D	170	26	20	08/21/13	08/24/13	KWG1308653	
Benz(a)anthracene	**2000**	D	170	24	20	08/21/13	08/24/13	KWG1308653	
Chrysene	**2500**	D	170	27	20	08/21/13	08/24/13	KWG1308653	
Benzo(b)fluoranthene	**970**	D	170	31	20	08/21/13	08/24/13	KWG1308653	
Benzo(k)fluoranthene	**270**	D	170	29	20	08/21/13	08/24/13	KWG1308653	
Benzo(a)pyrene	**1300**	D	170	26	20	08/21/13	08/24/13	KWG1308653	
Indeno(1,2,3-cd)pyrene	**610**	D	170	29	20	08/21/13	08/24/13	KWG1308653	
Dibenz(a,h)anthracene	**190**	D	170	27	20	08/21/13	08/24/13	KWG1308653	
Benzo(g,h,i)perylene	**880**	D	170	29	20	08/21/13	08/24/13	KWG1308653	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	104	17-104	08/24/13	Acceptable
Fluoranthene-d10	85	27-106	08/24/13	Acceptable
Terphenyl-d14	119	35-109	08/24/13	Outside Control Limits

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1308653-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	2.5	0.60	1	08/21/13	08/23/13	KWG1308653	
2-Methylnaphthalene	ND	U	2.5	0.46	1	08/21/13	08/23/13	KWG1308653	
Acenaphthylene	ND	U	2.5	0.59	1	08/21/13	08/23/13	KWG1308653	
Acenaphthene	ND	U	2.5	0.76	1	08/21/13	08/23/13	KWG1308653	
Dibenzofuran	ND	U	2.5	0.63	1	08/21/13	08/23/13	KWG1308653	
Fluorene	ND	U	2.5	0.61	1	08/21/13	08/23/13	KWG1308653	
Phenanthrene	ND	U	2.5	1.4	1	08/21/13	08/23/13	KWG1308653	
Anthracene	ND	U	2.5	0.58	1	08/21/13	08/23/13	KWG1308653	
Fluoranthene	ND	U	2.5	0.98	1	08/21/13	08/23/13	KWG1308653	
Pyrene	ND	U	2.5	0.76	1	08/21/13	08/23/13	KWG1308653	
Benz(a)anthracene	ND	U	2.5	0.72	1	08/21/13	08/23/13	KWG1308653	
Chrysene	ND	U	2.5	0.80	1	08/21/13	08/23/13	KWG1308653	
Benzo(b)fluoranthene	ND	U	2.5	0.92	1	08/21/13	08/23/13	KWG1308653	
Benzo(k)fluoranthene	ND	U	2.5	0.87	1	08/21/13	08/23/13	KWG1308653	
Benzo(a)pyrene	ND	U	2.5	0.76	1	08/21/13	08/23/13	KWG1308653	
Indeno(1,2,3-cd)pyrene	ND	U	2.5	0.87	1	08/21/13	08/23/13	KWG1308653	
Dibenz(a,h)anthracene	ND	U	2.5	0.80	1	08/21/13	08/23/13	KWG1308653	
Benzo(g,h,i)perylene	ND	U	2.5	0.85	1	08/21/13	08/23/13	KWG1308653	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	69	17-104	08/23/13	Acceptable
Fluoranthene-d10	74	27-106	08/23/13	Acceptable
Terphenyl-d14	90	35-109	08/23/13	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1308734-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	ND	U	2.5	0.60	1	08/21/13	08/23/13	KWG1308734	
2-Methylnaphthalene	ND	U	2.5	0.46	1	08/21/13	08/23/13	KWG1308734	
Acenaphthylene	ND	U	2.5	0.59	1	08/21/13	08/23/13	KWG1308734	
Acenaphthene	ND	U	2.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Dibenzofuran	ND	U	2.5	0.63	1	08/21/13	08/23/13	KWG1308734	
Fluorene	ND	U	2.5	0.61	1	08/21/13	08/23/13	KWG1308734	
Phenanthrene	ND	U	2.5	1.4	1	08/21/13	08/23/13	KWG1308734	
Anthracene	ND	U	2.5	0.58	1	08/21/13	08/23/13	KWG1308734	
Fluoranthene	ND	U	2.5	0.98	1	08/21/13	08/23/13	KWG1308734	
Pyrene	ND	U	2.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Benz(a)anthracene	ND	U	2.5	0.72	1	08/21/13	08/23/13	KWG1308734	
Chrysene	ND	U	2.5	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(b)fluoranthene	ND	U	2.5	0.92	1	08/21/13	08/23/13	KWG1308734	
Benzo(k)fluoranthene	ND	U	2.5	0.87	1	08/21/13	08/23/13	KWG1308734	
Benzo(a)pyrene	ND	U	2.5	0.76	1	08/21/13	08/23/13	KWG1308734	
Indeno(1,2,3-cd)pyrene	ND	U	2.5	0.87	1	08/21/13	08/23/13	KWG1308734	
Dibenz(a,h)anthracene	ND	U	2.5	0.80	1	08/21/13	08/23/13	KWG1308734	
Benzo(g,h,i)perylene	**1.5**	J	2.5	0.85	1	08/21/13	08/23/13	KWG1308734	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	75	17-104	08/23/13	Acceptable
Fluoranthene-d10	75	27-106	08/23/13	Acceptable
Terphenyl-d14	94	35-109	08/23/13	Acceptable

Comments:

Client: GeoSyntec Consultants **Service Request:** K1308343
Project: Ash Grove/PNG0580
Sample Matrix: Soil

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541 **Units:** Percent
Analysis Method: 8270D SIM **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
AG-C-01 0-30	K1308343-001	58	64	75
AG-C-01 30-90	K1308343-002	76	87	87
AG-C-02 0-30	K1308343-003	67	76	89
AG-C-02 30-90	K1308343-004	63	76	80
AG-C-04 0-30	K1308343-005	65	74	79
AG-C-04 30-90	K1308343-006	50	59	63
AG-C-05 0-30	K1308343-007	59	64	74
AG-C-05 30-90	K1308343-008	70	83	85
AG-C-06 0-30	K1308343-009	62	68	77
AG-C-06 30-90	K1308343-010	72	83	89
AG-C-03 0-30	K1308343-011	69	75	88
AG-C-03 30-90	K1308343-012	69	79	86
AG-G-01	K1308343-013	62	69	80
AG-G-02	K1308343-014	70	81	91
AG-G-03	K1308343-015	108 D *	114 D *	112 D *
AG-G-04	K1308343-016	74	81	92
AG-G-05	K1308343-017	74	79	92
AG-G-06	K1308343-018	64	67	79
AG-G-07	K1308343-019	62	68	81
AG-G-08	K1308343-020	78	83	98
AG-G-09	K1308343-021	64	74	81
AG-G-03 30-90	K1308343-022	93 D	91 D	105 D
AG-C-01 45	K1308343-023	76	89	94
AG-G-03 70-90	K1308343-024	104 D	85 D	119 D *
Method Blank	KWG1308653-5	69	74	90
Method Blank	KWG1308734-5	75	75	94
AG-G-07MS	KWG1308734-1	64	71	83
AG-G-07DMS	KWG1308734-2	72	79	90
Lab Control Sample	KWG1308653-3	77	79	91
Duplicate Lab Control Sample	KWG1308653-4	81	83	96
Lab Control Sample	KWG1308734-3	75	78	92
Duplicate Lab Control Sample	KWG1308734-4	78	79	95

Surrogate Recovery Control Limits (%)

Sur1	= Fluorene-d10	17-104
Sur2	= Fluoranthene-d10	27-106
Sur3	= Terphenyl-d14	35-109

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/21/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/23/2013

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-G-07	**Units:**	ug/Kg
Lab Code:	K1308343-019	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1308734

		AG-G-07MS KWG1308734-1 Matrix Spike			AG-G-07DMS KWG1308734-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	2.5	227	315	71	266	319	83	23-114	16	40
2-Methylnaphthalene	1.7	238	315	75	272	319	85	24-115	13	40
Acenaphthylene	1.4	244	315	77	281	319	87	32-117	14	40
Acenaphthene	3.6	242	315	76	286	319	88	33-118	17	40
Dibenzofuran	3.5	246	315	77	286	319	88	34-131	15	40
Fluorene	4.9	255	315	79	299	319	92	33-125	16	40
Phenanthrene	26	270	315	78	334	319	97	29-125	21	40
Anthracene	5.4	260	315	81	301	319	93	30-127	15	40
Fluoranthene	38	323	315	90	423	319	121	35-139	27	40
Pyrene	33	335	315	96	420	319	121	27-134	22	40
Benz(a)anthracene	11	300	315	92	389	319	118	35-122	26	40
Chrysene	27	310	315	90	405	319	118	36-126	27	40
Benzo(b)fluoranthene	19	319	315	95	434	319	130 *	35-124	31	40
Benzo(k)fluoranthene	6.8	309	315	96	369	319	113	38-124	17	40
Benzo(a)pyrene	9.8	309	315	95	424	319	130 *	37-123	31	40
Indeno(1,2,3-cd)pyrene	9.7	309	315	95	399	319	122	28-133	25	40
Dibenz(a,h)anthracene	2.3	276	315	87	329	319	102	32-125	17	40
Benzo(g,h,i)perylene	11	293	315	89	373	319	113	33-128	24	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/21/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/23/2013

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1308653

	Lab Control Sample KWG1308653-3 Lab Control Spike			Duplicate Lab Control Sample KWG1308653-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	413	500	83	453	500	91	32-124	9	40
2-Methylnaphthalene	439	500	88	467	500	93	27-126	6	40
Acenaphthylene	444	500	89	479	500	96	38-126	7	40
Acenaphthene	438	500	88	475	500	95	39-124	8	40
Dibenzofuran	448	500	90	486	500	97	41-130	8	40
Fluorene	460	500	92	497	500	99	39-129	8	40
Phenanthrene	451	500	90	478	500	96	39-123	6	40
Anthracene	455	500	91	485	500	97	38-130	6	40
Fluoranthene	481	500	96	524	500	105	39-135	9	40
Pyrene	517	500	103	551	500	110	39-134	6	40
Benz(a)anthracene	467	500	93	510	500	102	46-120	9	40
Chrysene	485	500	97	523	500	105	49-120	8	40
Benzo(b)fluoranthene	491	500	98	542	500	108	51-121	10	40
Benzo(k)fluoranthene	509	500	102	552	500	110	55-120	8	40
Benzo(a)pyrene	502	500	100	552	500	110	49-122	9	40
Indeno(1,2,3-cd)pyrene	509	500	102	555	500	111	40-128	9	40
Dibenz(a,h)anthracene	452	500	90	497	500	99	43-125	9	40
Benzo(g,h,i)perylene	496	500	99	538	500	108	49-122	8	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1308343
Project:	Ash Grove/PNG0580	**Date Extracted:**	08/21/2013
Sample Matrix:	Soil	**Date Analyzed:**	08/23/2013

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1308734

	Lab Control Sample KWG1308734-3 Lab Control Spike			Duplicate Lab Control Sample KWG1308734-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	412	500	82	424	500	85	32-124	3	40
2-Methylnaphthalene	431	500	86	445	500	89	27-126	3	40
Acenaphthylene	438	500	88	460	500	92	38-126	5	40
Acenaphthene	432	500	86	452	500	90	39-124	5	40
Dibenzofuran	441	500	88	456	500	91	41-130	3	40
Fluorene	451	500	90	472	500	94	39-129	4	40
Phenanthrene	430	500	86	449	500	90	39-123	4	40
Anthracene	456	500	91	456	500	91	38-130	0	40
Fluoranthene	475	500	95	487	500	97	39-135	3	40
Pyrene	501	500	100	522	500	104	39-134	4	40
Benz(a)anthracene	487	500	97	509	500	102	46-120	4	40
Chrysene	503	500	101	514	500	103	49-120	2	40
Benzo(b)fluoranthene	510	500	102	531	500	106	51-121	4	40
Benzo(k)fluoranthene	519	500	104	535	500	107	55-120	3	40
Benzo(a)pyrene	521	500	104	539	500	108	49-122	3	40
Indeno(1,2,3-cd)pyrene	534	500	107	543	500	109	40-128	2	40
Dibenz(a,h)anthracene	496	500	99	510	500	102	43-125	3	40
Benzo(g,h,i)perylene	501	500	100	515	500	103	49-122	3	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

APPENDIX B

ALS ENVIRONMENTAL DATA PACKAGES

PHASE 2

October 21, 2013 Analytical Report for Service Request No: K1311327

Keith Kroeger
GeoSyntec Consultants
621 SW Morrison St.
Suite 600
Portland, OR 97205

RE: Ash Grove/PNG0580

Dear Keith:

Enclosed are the results of the samples submitted to our laboratory on October 18, 2013. For your reference, these analyses have been assigned our service request number K1311327.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376. You may also contact me via Email at Gregory.Salata@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Project Manager

GS/mj

AGC0012553

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

AGC0012554

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

AGC0012555

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2286
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Georgia DNR	http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
Indiana DOH	http://www.in.gov/isdh/24859.htm	C-WA-01
ISO 17025	http://www.pjlabs.com/	L12-27
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Maine DHS	Not available	WA0035
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-368
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA35
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA200001
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427-08-TX
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.caslab.com or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

ALS ENVIRONMENTAL

Client:	GeoSyntec Consultants	**Service Request No.:**	K1311327
Project:	Ash Grove/ PNG0580	**Date Received:**	10/18/13
Sample Matrix:	Soil		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Matrix/Duplicate Matrix Spike (MS/DMS), and Laboratory Control Sample (LCS).

Sample Receipt

Three soil samples were received for analysis at ALS Environmental on 10/18/13. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

Polynuclear Aromatic Hydrocarbons by EPA Method 8270

No anomalies associated with the analysis of these samples were observed.

Approved by_____

AGC0012557

ALS Environmental

CHAIN OF CUSTODY

43950

1317 South 13th Ave, Kelso, WA 98626 Phone (360) 577-7222 / 800-695-7222 / FAX (360) 636-1068
www.alsglobal.com

SR# KL31327
COC Set 1 of 1
COC#

Project Name	Ash Grove
Project Number	PNG0580
Project Manager	Keith Kroeger
Company	GeoSyntec.
Address	610 SW Morrison Ste 600
Phone #	503 701 4538
email	KKroeger@GeoSyntec.com
Sampler Signature	
Sampler Printed Name	Keith Kroeger

CLIENT SAMPLE ID	LABID	SAMPLING Date	SAMPLING Time	Matrix	NUMBER OF CONTAINERS	7D: TS-MET / Total Solids	14D: 8270D / PAH SIM	14D: NWTPH-Dx / NW_TPH	14D: NWTPH-Gx / NW_GAS	14D: NWTPH-HCID / NW_HCID	28D: ASTM D4129-05 Modified /	180D: ASTM D422 / Part Size	999D: Archive / Archive 4C	SM 2540 G / TS Fixed	1	2	3	4	5	Remarks
1. AG-01-101813		10/18		S	1		X													
2. AG-02-101813		↓		S	1		X													
3. AG-03-101813		↓		S	1		X													
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				

Report Requirements

- ✓ I. Routine Report: Method Blank, Surrogate, as required
- ___ II. Report Dup., MS, MSD as required
- ___ III. CLP Like Summary (no raw data)
- ___ IV. Data Validation Report
- ___ V. EDD

Invoice Information

P.O.# GEOSYNTEC
Bill To: ATTN: K. Kroeger

Turnaround Requirements

- X 24 hr
- ___ 48 hr.
- ___ 5 Day
- ___ Standard

Requested Report Date

Circle which metals are to be analyzed

Total Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Dissolved Metals: Al As Sb Ba Be B Ca Cd Co Cr Cu Fe Pb Mg Mn Mo Ni K Ag Na Se Sr Tl Sn V Zn Hg

Special Instructions/Comments:

RUSH!!

*Indicate State Hydrocarbon Procedure: AK CA WI Northwest Other ____(Circle One)

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: Keith Kroeger	Printed Name: [illegible]	Printed Name	Printed Name: Davis	Printed Name	Printed Name
Firm	Firm	Firm	Firm: ALS Kelso	Firm	Firm
Date/Time: 10/18/13 2:20p	Date/Time: 10-18-13 14:20	Date/Time	Date/Time: 10/18/13 1445	Date/Time	Date/Time

AGC0012558

ALS

PC Greg

Cooler Receipt and Preservation Form

Client / Project: Geo Suntec Service Request *K13* 11327

Received: October 18, 13 Opened: 10/18 By: SD Unloaded: 10/18 By: SD

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? _____

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Raw Cooler Temp	Corrected. Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
3.6	3.6	2.7	2.7	0.0	316			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA Y N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

RUSH

Page ____ *of* ____

Analytical Results

Client: GeoSyntec Consultants
Project: Ash Grove/PNG0580
Sample Matrix: Soil

Service Request: K1311327

Total Solids

Prep Method: NONE
Analysis Method: 160.3M
Test Notes:

Units: PERCENT
Basis: Wet

Sample Name	Lab Code	Date Collected	Date Received	Date Analyzed	Result	Result Notes
AG-01-101813	K1311327-001	10/18/2013	10/18/2013	10/18/2013	63.8	
AG-02-101813	K1311327-002	10/18/2013	10/18/2013	10/18/2013	95.7	
AG-03-101813	K1311327-003	10/18/2013	10/18/2013	10/18/2013	81.0	

AGC0012560

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Collected:**	10/18/2013
Sample Matrix:	Soil	**Date Received:**	10/18/2013
		Date Analyzed:	10/18/2013

Duplicate Sample Summary

Total Solids

Prep Method:	NONE	**Units:**	PERCENT
Analysis Method:	160.3M	**Basis:**	Wet
Test Notes:			

Sample Name	Lab Code	Sample Result	Duplicate Sample Result	Average	Relative Percent Difference	Result Notes
AG-01-101813	K1311327-001	63.8	63.0	63.4	1	

AGC0012561

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Collected:**	10/18/2013
Sample Matrix:	Soil	**Date Received:**	10/18/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-01-101813	**Units:**	ug/Kg
Lab Code:	K1311327-001	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**1.3**	J	4.0	0.60	1	10/18/13	10/21/13	KWG1311593	
2-Methylnaphthalene	**0.48**	J	4.0	0.46	1	10/18/13	10/21/13	KWG1311593	
Acenaphthylene	ND	U	4.0	0.59	1	10/18/13	10/21/13	KWG1311593	
Acenaphthene	ND	U	4.0	0.76	1	10/18/13	10/21/13	KWG1311593	
Dibenzofuran	ND	U	4.0	0.63	1	10/18/13	10/21/13	KWG1311593	
Fluorene	ND	U	4.0	0.61	1	10/18/13	10/21/13	KWG1311593	
Phenanthrene	ND	U	4.0	1.4	1	10/18/13	10/21/13	KWG1311593	
Anthracene	ND	U	4.0	0.58	1	10/18/13	10/21/13	KWG1311593	
Fluoranthene	ND	U	4.0	0.98	1	10/18/13	10/21/13	KWG1311593	
Pyrene	**0.84**	J	4.0	0.76	1	10/18/13	10/21/13	KWG1311593	
Benz(a)anthracene	ND	U	4.0	0.72	1	10/18/13	10/21/13	KWG1311593	
Chrysene	ND	U	4.0	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(b)fluoranthene	ND	U	4.0	0.92	1	10/18/13	10/21/13	KWG1311593	
Benzo(k)fluoranthene	ND	U	4.0	0.87	1	10/18/13	10/21/13	KWG1311593	
Benzo(a)pyrene	ND	U	4.0	0.76	1	10/18/13	10/21/13	KWG1311593	
Indeno(1,2,3-cd)pyrene	ND	U	4.0	0.87	1	10/18/13	10/21/13	KWG1311593	
Dibenz(a,h)anthracene	ND	U	4.0	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(g,h,i)perylene	ND	U	4.0	0.85	1	10/18/13	10/21/13	KWG1311593	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	69	17-104	10/21/13	Acceptable
Fluoranthene-d10	72	27-106	10/21/13	Acceptable
Terphenyl-d14	86	35-109	10/21/13	Acceptable

Comments:

AGC0012562

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Collected:**	10/18/2013
Sample Matrix:	Soil	**Date Received:**	10/18/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-02-101813	**Units:**	ug/Kg
Lab Code:	K1311327-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**4.9**		2.6	0.60	1	10/18/13	10/21/13	KWG1311593	
2-Methylnaphthalene	**4.1**		2.6	0.46	1	10/18/13	10/21/13	KWG1311593	
Acenaphthylene	**0.86**	J	2.6	0.59	1	10/18/13	10/21/13	KWG1311593	
Acenaphthene	ND	U	2.6	0.76	1	10/18/13	10/21/13	KWG1311593	
Dibenzofuran	**1.6**	J	2.6	0.63	1	10/18/13	10/21/13	KWG1311593	
Fluorene	**1.0**	J	2.6	0.61	1	10/18/13	10/21/13	KWG1311593	
Phenanthrene	**6.9**		2.6	1.4	1	10/18/13	10/21/13	KWG1311593	
Anthracene	**2.2**	J	2.6	0.58	1	10/18/13	10/21/13	KWG1311593	
Fluoranthene	**6.5**		2.6	0.98	1	10/18/13	10/21/13	KWG1311593	
Pyrene	**6.7**		2.6	0.76	1	10/18/13	10/21/13	KWG1311593	
Benz(a)anthracene	**2.8**		2.6	0.72	1	10/18/13	10/21/13	KWG1311593	
Chrysene	**5.4**		2.6	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(b)fluoranthene	**5.3**		2.6	0.92	1	10/18/13	10/21/13	KWG1311593	
Benzo(k)fluoranthene	**1.9**	J	2.6	0.87	1	10/18/13	10/21/13	KWG1311593	
Benzo(a)pyrene	**3.6**		2.6	0.76	1	10/18/13	10/21/13	KWG1311593	
Indeno(1,2,3-cd)pyrene	**4.5**		2.6	0.87	1	10/18/13	10/21/13	KWG1311593	
Dibenz(a,h)anthracene	**1.1**	J	2.6	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(g,h,i)perylene	**8.5**		2.6	0.85	1	10/18/13	10/21/13	KWG1311593	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	81	17-104	10/21/13	Acceptable
Fluoranthene-d10	89	27-106	10/21/13	Acceptable
Terphenyl-d14	104	35-109	10/21/13	Acceptable

Comments:

AGC0012563

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Collected:**	10/18/2013
Sample Matrix:	Soil	**Date Received:**	10/18/2013

Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-03-101813	**Units:**	ug/Kg
Lab Code:	K1311327-003	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**1.8**	J	3.1	0.60	1	10/18/13	10/21/13	KWG1311593	
2-Methylnaphthalene	**1.3**	J	3.1	0.46	1	10/18/13	10/21/13	KWG1311593	
Acenaphthylene	ND	U	3.1	0.59	1	10/18/13	10/21/13	KWG1311593	
Acenaphthene	ND	U	3.1	0.76	1	10/18/13	10/21/13	KWG1311593	
Dibenzofuran	**0.79**	J	3.1	0.63	1	10/18/13	10/21/13	KWG1311593	
Fluorene	**0.67**	J	3.1	0.61	1	10/18/13	10/21/13	KWG1311593	
Phenanthrene	**4.6**		3.1	1.4	1	10/18/13	10/21/13	KWG1311593	
Anthracene	**1.3**	J	3.1	0.58	1	10/18/13	10/21/13	KWG1311593	
Fluoranthene	**14**		3.1	0.98	1	10/18/13	10/21/13	KWG1311593	
Pyrene	**15**		3.1	0.76	1	10/18/13	10/21/13	KWG1311593	
Benz(a)anthracene	**4.5**		3.1	0.72	1	10/18/13	10/21/13	KWG1311593	
Chrysene	**10**		3.1	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(b)fluoranthene	**11**		3.1	0.92	1	10/18/13	10/21/13	KWG1311593	
Benzo(k)fluoranthene	**4.2**		3.1	0.87	1	10/18/13	10/21/13	KWG1311593	
Benzo(a)pyrene	**5.0**		3.1	0.76	1	10/18/13	10/21/13	KWG1311593	
Indeno(1,2,3-cd)pyrene	**4.7**		3.1	0.87	1	10/18/13	10/21/13	KWG1311593	
Dibenz(a,h)anthracene	**1.2**	J	3.1	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(g,h,i)perylene	**5.6**		3.1	0.85	1	10/18/13	10/21/13	KWG1311593	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	73	17-104	10/21/13	Acceptable
Fluoranthene-d10	83	27-106	10/21/13	Acceptable
Terphenyl-d14	95	35-109	10/21/13	Acceptable

Comments:

AGC0012564

ALS Group USA, Corp. dba ALS Environmental

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA

Polynuclear Aromatic Hydrocarbons

Sample Name:	Method Blank	**Units:**	ug/Kg
Lab Code:	KWG1311593-5	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Naphthalene	**0.65**	J	2.5	0.60	1	10/18/13	10/21/13	KWG1311593	
2-Methylnaphthalene	ND	U	2.5	0.46	1	10/18/13	10/21/13	KWG1311593	
Acenaphthylene	ND	U	2.5	0.59	1	10/18/13	10/21/13	KWG1311593	
Acenaphthene	ND	U	2.5	0.76	1	10/18/13	10/21/13	KWG1311593	
Dibenzofuran	ND	U	2.5	0.63	1	10/18/13	10/21/13	KWG1311593	
Fluorene	ND	U	2.5	0.61	1	10/18/13	10/21/13	KWG1311593	
Phenanthrene	ND	U	2.5	1.4	1	10/18/13	10/21/13	KWG1311593	
Anthracene	ND	U	2.5	0.58	1	10/18/13	10/21/13	KWG1311593	
Fluoranthene	ND	U	2.5	0.98	1	10/18/13	10/21/13	KWG1311593	
Pyrene	ND	U	2.5	0.76	1	10/18/13	10/21/13	KWG1311593	
Benz(a)anthracene	ND	U	2.5	0.72	1	10/18/13	10/21/13	KWG1311593	
Chrysene	ND	U	2.5	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(b)fluoranthene	ND	U	2.5	0.92	1	10/18/13	10/21/13	KWG1311593	
Benzo(k)fluoranthene	ND	U	2.5	0.87	1	10/18/13	10/21/13	KWG1311593	
Benzo(a)pyrene	ND	U	2.5	0.76	1	10/18/13	10/21/13	KWG1311593	
Indeno(1,2,3-cd)pyrene	ND	U	2.5	0.87	1	10/18/13	10/21/13	KWG1311593	
Dibenz(a,h)anthracene	ND	U	2.5	0.80	1	10/18/13	10/21/13	KWG1311593	
Benzo(g,h,i)perylene	ND	U	2.5	0.85	1	10/18/13	10/21/13	KWG1311593	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Fluorene-d10	82	17-104	10/21/13	Acceptable
Fluoranthene-d10	86	27-106	10/21/13	Acceptable
Terphenyl-d14	99	35-109	10/21/13	Acceptable

Comments:

AGC0012565

Client: GeoSyntec Consultants
Project: Ash Grove/PNG0580
Sample Matrix: Soil

Service Request: K1311327

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method: EPA 3541
Analysis Method: 8270D SIM

Units: Percent
Level: Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
AG-01-101813	K1311327-001	69	72	86
AG-02-101813	K1311327-002	81	89	104
AG-03-101813	K1311327-003	73	83	95
Method Blank	KWG1311593-5	82	86	99
AG-02-101813MS	KWG1311593-1	80	89	101
AG-02-101813DMS	KWG1311593-2	80	88	98
Lab Control Sample	KWG1311593-3	79	85	92
Duplicate Lab Control Sample	KWG1311593-4	78	83	96

Surrogate Recovery Control Limits (%)

Sur1	= Fluorene-d10	17-104
Sur2	= Fluoranthene-d10	27-106
Sur3	= Terphenyl-d14	35-109

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Extracted:**	10/18/2013
Sample Matrix:	Soil	**Date Analyzed:**	10/21/2013

Matrix Spike/Duplicate Matrix Spike Summary
Polynuclear Aromatic Hydrocarbons

Sample Name:	AG-02-101813	**Units:**	ug/Kg
Lab Code:	K1311327-002	**Basis:**	Dry
Extraction Method:	EPA 3541	**Level:**	Low
Analysis Method:	8270D SIM	**Extraction Lot:**	KWG1311593

		AG-02-101813MS KWG1311593-1 Matrix Spike			AG-02-101813DMS KWG1311593-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	4.9	233	257	89	221	256	84	23-114	5	40
2-Methylnaphthalene	4.1	237	257	91	225	256	86	24-115	5	40
Acenaphthylene	0.86	250	257	97	236	256	92	32-117	6	40
Acenaphthene	ND	246	257	96	233	256	91	33-118	5	40
Dibenzofuran	1.6	256	257	99	244	256	95	34-131	5	40
Fluorene	1.0	259	257	100	243	256	94	33-125	6	40
Phenanthrene	6.9	256	257	97	237	256	90	29-125	8	40
Anthracene	2.2	260	257	100	238	256	92	30-127	9	40
Fluoranthene	6.5	282	257	107	264	256	100	35-139	6	40
Pyrene	6.7	304	257	116	284	256	108	27-134	7	40
Benz(a)anthracene	2.8	285	257	110	269	256	104	35-122	6	40
Chrysene	5.4	290	257	111	271	256	104	36-126	7	40
Benzo(b)fluoranthene	5.3	281	257	107	272	256	104	35-124	3	40
Benzo(k)fluoranthene	1.9	295	257	114	274	256	106	38-124	7	40
Benzo(a)pyrene	3.6	297	257	114	281	256	108	37-123	6	40
Indeno(1,2,3-cd)pyrene	4.5	257	257	98	254	256	97	28-133	1	40
Dibenz(a,h)anthracene	1.1	259	257	101	246	256	96	32-125	5	40
Benzo(g,h,i)perylene	8.5	265	257	100	256	256	96	33-128	4	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1311327
Project:	Ash Grove/PNG0580	**Date Extracted:**	10/18/2013
Sample Matrix:	Soil	**Date Analyzed:**	10/21/2013

Lab Control Spike/Duplicate Lab Control Spike Summary
Polynuclear Aromatic Hydrocarbons

Extraction Method:	EPA 3541	**Units:**	ug/Kg
Analysis Method:	8270D SIM	**Basis:**	Dry
		Level:	Low
		Extraction Lot:	KWG1311593

	Lab Control Sample KWG1311593-3 Lab Control Spike			Duplicate Lab Control Sample KWG1311593-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Naphthalene	407	500	81	419	500	84	32-124	3	40
2-Methylnaphthalene	420	500	84	428	500	86	27-126	2	40
Acenaphthylene	446	500	89	447	500	89	38-126	0	40
Acenaphthene	445	500	89	439	500	88	39-124	1	40
Dibenzofuran	462	500	92	454	500	91	41-130	2	40
Fluorene	468	500	94	463	500	93	39-129	1	40
Phenanthrene	471	500	94	442	500	88	39-123	6	40
Anthracene	486	500	97	464	500	93	38-130	5	40
Fluoranthene	495	500	99	467	500	93	39-135	6	40
Pyrene	507	500	101	519	500	104	39-134	2	40
Benz(a)anthracene	494	500	99	491	500	98	46-120	1	40
Chrysene	508	500	102	498	500	100	49-120	2	40
Benzo(b)fluoranthene	469	500	94	476	500	95	51-121	1	40
Benzo(k)fluoranthene	512	500	102	502	500	100	55-120	2	40
Benzo(a)pyrene	515	500	103	508	500	102	49-122	1	40
Indeno(1,2,3-cd)pyrene	477	500	95	465	500	93	40-128	3	40
Dibenz(a,h)anthracene	471	500	94	440	500	88	43-125	7	40
Benzo(g,h,i)perylene	467	500	93	439	500	88	49-122	6	40

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Avenue, Bldg. 217, Portland, Oregon 97203 • Sam Adams, Commissioner • Dean Marriott, Director

January 14, 2008

Glenn Dollar
Ash Grove Cement Company.
13939 N Rivergate Boulevard
Portland, OR 97203

RE: Stormwater Facility Inspection- Ash Grove Cement Facilities - **3737 N Port Center Way & 2600 N River Street**, Portland, Oregon

Dear Mr. Dollar:

The City of Portland conducted an inspection of the two terminals of the Ash Grove Cement Company on January 11, 2008. The purpose of the inspection is to evaluate the company's compliance with the 1200-Z NPDES Stormwater Permit that has been issued for this combined site. The following issues were noted and discussed during the inspection:

- The north terminal is still under construction, from both the completion of the on-site covered conveyor system that will go between both terminals and the City's work on the East Side CSO project. The increase in erosion exposure from all this work was discussed as well as the site's plans to control track-out. Please keep the City informed of the site status as things change.

- The current sample point is rather inaccessible and perhaps unreachable during high water/high tides. Two ideas were discussed to help rectify this safety issue. Either approach is acceptable as long as the sample is taken at the outfall or after the last connection to the outfall pipe. Again keep the City informed and revise the site's SWPCP as needed.

- The south terminal's drive through truck wash area recycles the water until the TSS levels exceed a set concentration. This water is then discharged to an on-site infiltration swale, and thus there is no discharge to the river from the site. The swale has some vegetation but does show signs of solid build-up and invasive weeds. Please work with a landscape contractor to clean-out the solids and garbage as well as replant the bottom and sides of the swale to meet the Stormwater Management Manual requirements for such on-site treatment systems.

AGC0012569

Thank you for taking the time to familiarize me with the two combined facilities, operations, and stormwater management program at this site. The City of Portland appreciates your commitment to minimize contaminated stormwater runoff to the Willamette River. If you have any questions or need additional information, please feel free to contact me at 503.823.5537.

Sincerely,

Timothy P. Dean
Industrial Stormwater Section

CC: John Hone; Terminal Manager, Ash Grove Cement

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Avenue, Bldg. 217, Portland, Oregon 97203 • Sam Adams, Commissioner • Dean Marriott, Director

October 24, 2008

Glenn Dollar
Ash Grove Cement Company.
13939 N Rivergate Boulevard
Portland, OR 97203

COPY

RE: Stormwater Facility Inspection- Ash Grove Cement Facilities - **3737 N Port Center Way & 2600 N River Street**, Portland, Oregon

Dear Mr. Dollar:

The City of Portland conducted an inspection of the two terminals of the Ash Grove Cement Company on October 23, 2008. The purpose of the inspection was to evaluate the company's compliance with the 1200-Z NPDES Stormwater Permit that has been issued for this combined site. The following issues were noted and discussed during the inspection:

- The north terminal is still under construction, from both the completion of the on-site covered conveyor system that will go between both terminals and the City's work on the East Side CSO project. The increase in erosion exposure from all this work was discussed as well as the site's plans to control track-out. Continue to focus on the housekeeping and erosion control issues by sweeping the site and cleaning or replacing the catch basin inserts as needed.

- The fueling area of the site has been modified with a berm to contain and drips or leaks associated with fueling operations. The City recommends the impounded water be visually monitored prior to releasing it for discharge to the near by catch basin. All such discharges will need to be noted in the site's log for document purposes.

- The south terminal's drive through truck wash area recycles the water until the TSS levels exceed a set concentration. This water is then discharged to an on-site infiltration swale, and thus there is no discharge to the river from the site. The swale's build-up of invasive weeds is currently being dealt with by a landscape contractor to clean-out the solids and garbage as well as replant the bottom and sides of the swale. The City recommends that the swale be cleaned of debris and sediments at least yearly so that it will continue to infiltrate as designed.

- The City recommends that the newly discovered pipe structure at the very south end of the site be visually monitored for any discharges thorough out the year. Any such discharges will need to be noted in the site's log for document purposes.

AGC0012571

Thank you for taking the time to familiarize me with the two combined facilities, operations, and stormwater management program at this site. The City of Portland appreciates your commitment to minimize contaminated stormwater runoff to the Willamette River. If you have any questions or need additional information, please feel free to contact me at 503.823.5537.

Sincerely,

Timothy P. Dean
Permit Manager
City of Portland
Industrial Stormwater Section

CC: John Hone; Terminal Manager, Ash Grove Cement

CITY OF PORTLAND
ENVIRONMENTAL SERVICES
Water Pollution Control Laboratory
6543 N. Burlington Avenue, Bldg. 217, Portland, Oregon 97203 • Dan Saltzman, Commissioner • Dean Marriott, Director

February 1, 2011

Glenn Dollar
Ash Grove Cement Company.
13939 N Rivergate Boulevard
Portland, OR 97203

RE: Stormwater Facility Inspection- Ash Grove Cement Facilities - **3737 N Port Center Way & 2600 N River Street**, Portland, Oregon

Dear Mr. Dollar:

The City of Portland conducted an inspection of the two terminals of the Ash Grove Cement Company on January 27, 2011. The purpose of the inspection was to evaluate the company's compliance with the 1200-Z NPDES Stormwater Permit that has been issued for this combined site. Site was clean and there were no issues of non-compliance observed during the inspection.

Please note the following in order to protect stormwater quality:

- The City recommends a continued focus on housekeeping at both the north and south terminals. This includes sweeping the site and cleaning or replacing the catch basin inserts as needed, followed by hand sweeping around process area catch basins and the conveyor nearest the silos, to control sediment build-up and cut down on track-out.

- The fueling area of the site has been modified with a berm to contain drips and leaks associated with fueling operations. The City recommends that the fuel nozzle be covered and have a drip pan to prevent stormwater exposure to fuel drips.

- The south terminal's truck wash area discharges to an on-site infiltration swale. The swale's build-up of invasive weeds is being dealt with by a landscape contractor who is cleaning out the solids and garbage as well as replanting the bottom and sides of the swale. The City recommends that the swale be cleaned of debris and sediments at least yearly so that it will continue to infiltrate as designed.

- The City recommends continuing the visual monitoring of the 'rock sump' outlets that were discovered in 2002. Although no discharge has yet been observed any such discharges will need to be noted and traced back to their origin if possible.

AGC0012573

Thank you for taking the time to familiarize me with the two combined facilities, operations, and stormwater management program at these sites. The City of Portland appreciates your commitment to minimize contaminated stormwater runoff to the Willamette River. If you have any questions or need additional information, please feel free to contact me at 503.823.5537.

Sincerely,

Timothy P. Dean
Permit Manager
City of Portland
Industrial Stormwater Section

CC: John Hone; Terminal Manager, Ash Grove Cement