REVIEW OF THE CWM AIR PERMIT ESTIMATED EMISSIONS

SUMMARY AND CONCLUSIONS

Chemical Waste Management (CWM) has received a DEQ air permit for their proposed Arlington, OR oil reclamation facility. The facility includes a thermal desorption unit (TDU) that combusts in an associated thermal oxidizer unit (TOU) all of the discarded gases that are generated by the thermal treatment of oil bearing hazardous secondary materials, and would otherwise be continually released to the environment without their destruction by combustion in the TOU. A diagram of the CWM TDU extracted from their standalone document 22 "Organic Recovery Unit #2 Design and Operations Plan" is included in Appendix A. Based on representations made by CWM in their 2016 air permit application, DEQ granted an air permit that has essentially no emission limitations. This air permit allows CWM to operate their TDU without complying with strict MACT EEE emission limits imposed by EPA on TDUs in Texas and Arkansas that are processing identical oily wastes as are proposed for the CWM facility.

The CWM facility emissions of toxic hazardous waste combustion emissions will be significantly higher than if they were limited by MACT EEE emission limits.

- Mercury – 59,650 μg/dscm likely vs. <8.1 μg/dscm MACT EEE limit, or 0.65 lb-Hg/hr vs. <0.00009 lb-Hg/hr; a whopping 7,360 times higher mercury emission likely and allowed. Unrestricted by the current air permit.
- Semi-Volatile Metals (SVM) and Low Volatile Metals (LVM) including cadmium, lead, selenium, antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel - 4,980 μg/dscm likely vs. < 10 μg/dscm for SVM and <23 μg/dscm for LVM MACT EEE limit; 200 to 500 times higher emissions allowed. Unrestricted by the current air permit.
- Hydrochloric Acid – 29.5 lb-HCl/hr (or more) vs. < 0.35 lb-HCl/hr at the MACT EEE limit; 85 times higher (or more) HCl emission allowed. Unrestricted by the current air permit.
- Particulate Matter – 6 lb-PM/hr likely vs. <0.04 lb-PM/hr at the EEE limit; 150 times higher particulate matter emissions, with the toxic metals and adsorbed contaminants that go along with them. Unrestricted by the current air permit other than a prohibition on visible emissions greater than 20% opacity (i.e. "no black stacking")
- No performance testing is required by the approved air permit. Under a RCRA Subpart X permit, CWM would be required to demonstrate compliance with these emission limits, and to adopt operating parameter limits (OPLs) for the process to assure continued compliance with the emission limits on an hourly basis.

1. CWM THERMAL OXIDIZER ESTIMATED EMISSIONS

Emission estimates that were represented by CWM (Attached as Appendix B) for their Thermal Oxidizer Unit (TOU) and approved in the DEQ air permit are presented herein for comparison to the USEPA MACT EEE performance specifications for a Hazardous Waste Combustor. Emission estimates provided by CWM were calculated using USEPA AP-42 emission factors for propane combustion, as shown below.

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CWM Emission Estimates for the TOU

Pollutant	ton/yr	lb/hr
Particulate Matter		
PM	0.25	0.06
PM10	0.25	0.06
PM2.5	0.25	0.06
SO2	4.01	0.92
NOx	4.64	1.06
CO	2.68	0.61
VOC	0.36	0.08
Hazardous Air Pollutants		
Arsenic	0.0	0.0
Beryllium	0.0	0.0
Cadmium	0.0	0.0
Chromium	0.0	0.0
Cobalt	0.0	0.0
Hydrochloric Acid	0.0	0.0
Lead	0.0	0.0
Manganese	0.0	0.0
Mercury	0.0	0.0
Nickel	0.0	0.0
Selenium	0.0	0.0

It is important to note that CWM has not represented emissions for the following toxic air pollutants that are known to be present in petroleum refinery oil bearing hazardous secondary materials:

- Mercury – typically present as elemental mercury, which is a known constituent of crude oil (and natural gas), with common concentrations in some petroleum refinery OBHSM being in the range of 500 ppm, and sometimes as high as 1,000 ppm.
- Semi-Volatile Metals (SVM) and Low Volatile Metals (LVM) including cadmium, lead, selenium, antimony, arsenic, beryllium, chromium, cobalt, manganese, and nickel – common toxic metals present in some petroleum refinery OBHSM, with concentrations in the range of 5,000 ppm.
- Organic Chlorine – present in commercial chemicals that are used in the petroleum refining process that will decompose in the thermal oxidizer to generate hydrochloric acid emissions. Chlorine is present in some petroleum refinery OBHSM in concentrations in the range of 7,000 ppm and sometimes as high as 20,000 ppm.

US Ecology has collected data on these exact pollutants over the course of the last ten years of operation and has compiled a list of profiles completed by generators of these wastes and these profiles and a summary of their concentrations is provided in Appendix C "Toxic Air Pollutants Present in Oil Bearing Hazardous Waste from Refineries". It is also important to note that CWM has represented the emissions of particulate matter in their air permit as being solely from the combustion of propane. Those type of PM emissions are well known to be quite low and

consequently require no emissions control by either the facility operator or emissions limits in the permit.

However, the CWM unit employs a rotary kiln that tumbles up to 10 ton/hr of dusty solids in intimate contact with the desorber off-gas, passes these gases through an oil recovery system that has no particulate filter, and then directs those off-gasses to the thermal oxidizer for emission to the atmosphere. The likely PM emission is most likely at least 150 times higher than represented, and quite possibly much higher considering that the permit restricts that the TOU only operate without visible emissions greater than 20% opacity.

PM emissions are a priority pollutant, and require control. Furthermore, in a facility that processes industrial hazardous waste materials that are contaminated by toxic metals, control of PM emissions is a surrogate for control of their constituent toxic metals.

2. COMPARISON OF CWM EMISSION LIMITS TO THE HAZARDOUS WASTE COMBUSTOR (HWC) MACT PERFORMANCE STANDARDS

Because the hazardous waste exhaust gas from the thermal desorber will be combusted in a thermal oxidizer, additional USEPA performance specifications for a Miscellaneous Unit permitted under 40 CFR 264 are applicable. These are derived from USEPA performance specifications for a Hazardous Waste Combustor per 40 CFR 63 Subpart EEE. Specifically the following stack gas emissions standards from 40 CFR §63.1219 should apply to the CWM unit:

- Dioxins and furans emissions shall be less than 0.20 ng TEQ/dscm corrected to 7% oxygen in the exhaust stack
- mercury emissions shall be less than 8.1 μg/dscm corrected to 7% oxygen in the exhaust stack
- semi-volatile metals (Cd, Pb, Se) emissions shall be less than 10 μg/dscm corrected to 7% oxygen in the exhaust stack
- low-volatile metals (As, Be, Cr, Co, Mn, Ni, Sb) emissions shall be less than 23 μg/dscm combined emissions corrected to 7% oxygen in the exhaust stack
- carbon monoxide emissions shall be less than 100 ppmV, or hydrocarbons emissions less than 10 ppmV as propane, over an hourly rolling average, dry basis, corrected to 7% oxygen in the exhaust stack
- hydrogen chloride and chlorine gas emissions shall be less than 21 ppmV, combined emissions, expressed as chloride equivalent, dry basis, corrected to 7% oxygen in the exhaust stack
- particulate matter emissions shall be less than 0.0016 gr/dscf corrected to 7% oxygen in the exhaust stack.

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Comparison of CWM Air Permit to MACT EEE Standard

Pollutant	Units	MACT EEE	CWM Permit
Dioxins and Furans	ng TEQ/dscm	0.20	No Limit
Mercury	µg/dscm	8.1	No Limit
Semi-Volatile Metals	µg/dscm	10	No Limit
Low-Volatile Metals	µg/dscm	23	No Limit
Carbon Monoxide	ppmV	100	No Limit
Hydrocarbons	ppmV	10	No Limit
Hydrogen Chloride	ppmV	21	No Limit
Particulate Matter	gr/dscf	0.0016	No Limit

Estimated emissions of particulate matter, mercury, SVM/LVM, hydrogen chloride and dioxins/furans from the CWM thermal oxidizer can be calculated based upon the design and operation of the unit using the following assumptions:

- Particulate Matter - The emission factors used to estimate particulate emissions did not account for the large quantity of fine dust in the dryer process vent gas stream resulting from solids carryover from the dryer drum. The CWM vapor recovery unit (VRU) will provide some degree of particulate removal. The VRU consists of an adiabatic quench tower that uses process water to quench the organic vapors. Spray towers rely primarily on particle collection by impaction; therefore, they have moderately high collection efficiencies for coarse PM. Typical removal efficiencies for a spray tower can be as great as 90% for particles larger than 5 µm. Removal efficiencies for particles from 3 to 5 µm in diameter range from 60 to 80%. Below 3 µm, removal efficiencies decline to less than 50%. Overall, this control technology can achieve a particulate control efficiency of no greater than 98%. The PM estimated emissions were calculated using EPA Air Pollution Control Cost Manual, Sixth Edition EPA/452/B-02-001, January, 2002 (see Section 6 of Referenced document included in Appendix D).
- Mercury - 100 percent of the Hg contained in the feed will vaporize in the dryer and carry over to the gas vapor recovery and condensing equipment. At a 10 ton/hr feed rate and a feed Hg concentration of 739 ppm, this equates to an emission rate of 14.8 lb/hr of Hg from the dryer. The concentration of Hg vapor that will remain in the vent gas stream after condensing the organic vapors can be calculated from the saturation vapor pressure of Hg at the outlet temperature of the heat exchanger. Using a heat exchanger exhaust temperature of 130°F and a gas flow rate of 885 scfm, this equates to a Hg emission rate of approximately 0.65 lb/hr. The Hg estimated emissions are supported by first principles and summary data of Hg concentrations included and supported in Appendix C "Toxic Air Pollutants Present in Oil Bearing Hazardous Waste from Refineries"
- SVM/LVM - Dry solids SVM/LVM concentration of 9,200 ppm (1.7 x 5,400 ppm in wet feed) and particulate matter emissions of 6 lb/hr. The SVM/LVM estimated emissions are supported by PM estimated emissions along with the SVM/LVM concentrations summarized in Appendix C "Toxic Air Pollutants Present in Oil Bearing Hazardous Waste from Refineries"

- Hydrogen Chloride - Feed chlorine concentration of 7,168 ppm and a VRU/condensor chlorinated VOC removal efficiency of 80%. The HCL estimated emissions are supported by first principles and Cl concentrations summarized in Appendix C "Toxic Air Pollutants Present in Oil Bearing Hazardous Waste from Refineries"
- Dioxins and Furans - 99% Destruction and Removal Efficiency

Estimated CWM Emissions Based on TDU Design

Pollutant	Units	MACT EEE	CWM	DEQ Permit
Particulate Matter	gr/dscf	0.0016	0.24	No Limit
Dioxins and Furans	ng TEQ/dscm	0.2	2.2	No Limit
Mercury	µg/dscm	8.1	59,647	No Limit
SVM / LVM	µg/dscm	10 / 23	4,980	No Limit
Hydrogen Chloride	ppmV	21	1,789	No Limit

Pollutant	Units	At MACT EEE Limit	CWM	DEQ Permit
Particulate Matter	lb/hr	0.040	6.0	No Limit
Dioxins and Furans	lb/hr	2.18E-09	2.40E-08	No Limit
Mercury	lb/hr	0.00009	0.65	No Limit
SVM / LVM	lb/hr	0.00011 / 0.00025	0.05	No Limit
Hydrogen Chloride	lb/hr	0.35	29.5	No Limit

3. OPLs CONTROL EMISSIONS EVERY DAY, NOT JUST IN THE TEST

If CWM were required to get a RCRA Subpart X permit for the TDU, it would contain operating parameter limits (OPLs) including feedstream limitations implemented through the facility's RCRA enforceable waste acceptance plan (WAP). Without OPLs CWM's emissions are likely to exceed levels that are protective of human health and the environment. The likely CWM emissions are presented in Appendix E "CWM TDU Heat and Mass Balance and Likely Emissions without Proper Control". Typical OPLs that could reduce these emissions would include:

- Maximum feed rate for mercury. This would be based on demonstrated concentration fed when in compliance with MACT EEE emission limits. Based on CWM's design, the predicted feedstream limitation would be 0.00009 lb-Hg/hr maximum, or 5 ppb Hg in their TDU feed at 10 ton/hr (the represented TDU feed rate when processing OBHSM with a moisture content of 25% wt.).
- Maximum feed rate for arsenic and similar low-volatile metals (beryllium, chromium). This would be based on demonstrated concentration fed when in compliance with MACT EEE emission limits. Based on CWM's design, the predicted feedstream limitation would be 0.6 lb-LVM/hr maximum, or 30 ppm LVM in their TDU feed at 10 ton/hr.
- Maximum feed rate for lead and similar semi-volatile metals (cadmium). This would be based on demonstrated concentration fed when in compliance with MACT EEE emission limits. Based on CWM's design, the predicted feedstream limitation would be 0.3 lb-SVM/hr maximum, or 15 ppm SVM in their TDU feed at 10 ton/hr.

- Maximum chlorine in the feed that can generate hydrochloric acid gas emissions. Based on CWM's design, the predicted feedstream limitation would be 1.8 lb-Cl/hr maximum, or 90 ppm Cl in their TDU feed at 10 ton/hr.
- An appropriate limitation for a TDU with a condensation style gas treatment system is to place a maximum on the condenser outlet temperature based on what is demonstrated during the performance test. It is well known that for every 10°C, or 18°F increase in the condenser outlet temperature the emission rate of mercury (and individual VOCs) approximately doubles. A condenser outlet OPL is essential so that emissions that are demonstrated in compliance testing are not exceeded by the TDU operator later by allowing the condenser to operate much hotter, and thereby allowing significantly more hazardous waste emissions from the TDU.
- The present air permit has no requirement for CWM to conduct a comprehensive performance test to establish that their proposed facility can meet emission limits, or even comply with their represented emissions. By requiring a performance test, DEQ requires CWM to demonstrate compliance. Based on reasonable review of their proposed operations, and the known properties of petroleum refinery OBHSM, it is likely that CWM will exceed emission limits that are required for this type of facility

Presently CWM has no restriction on either mercury or chlorine containing oily waste. Therefore, by default, they could become a depository for mercury and chlorine containing oily waste. That is because other facilities like this are restricted and impose significant surcharges on mercury containing waste because they are strictly limited for that sensitive environmental pollutant. Chlorine restrictions can also dictate waste receipt and many oily streams are simply rejected because of the presence of even low levels of chlorine. Because the DEQ permit process does not restrict CWM in this area, the market will likely deliver a disproportionate amount of mercury and chlorine impacted material to the CWM facility.

4. CWM EMISSIONS ARE A SIGNIFICANT SOURCE OF TOXIC AIR POLLUTANTS

As stated previously, petroleum refinery OBHSM contains pollutants that were not disclosed in the air permit application. When the prior analysis is extended to annual operations, it would be straightforward to conclude that the CWM process has the potential to emit thousands of pounds per year of toxic air pollutants. This likelihood speaks to the need for feedstream controls on these pollutants, proper inclusion of pollution control devices that address their presence, and performance testing requirements to establish compliance with emission limits.

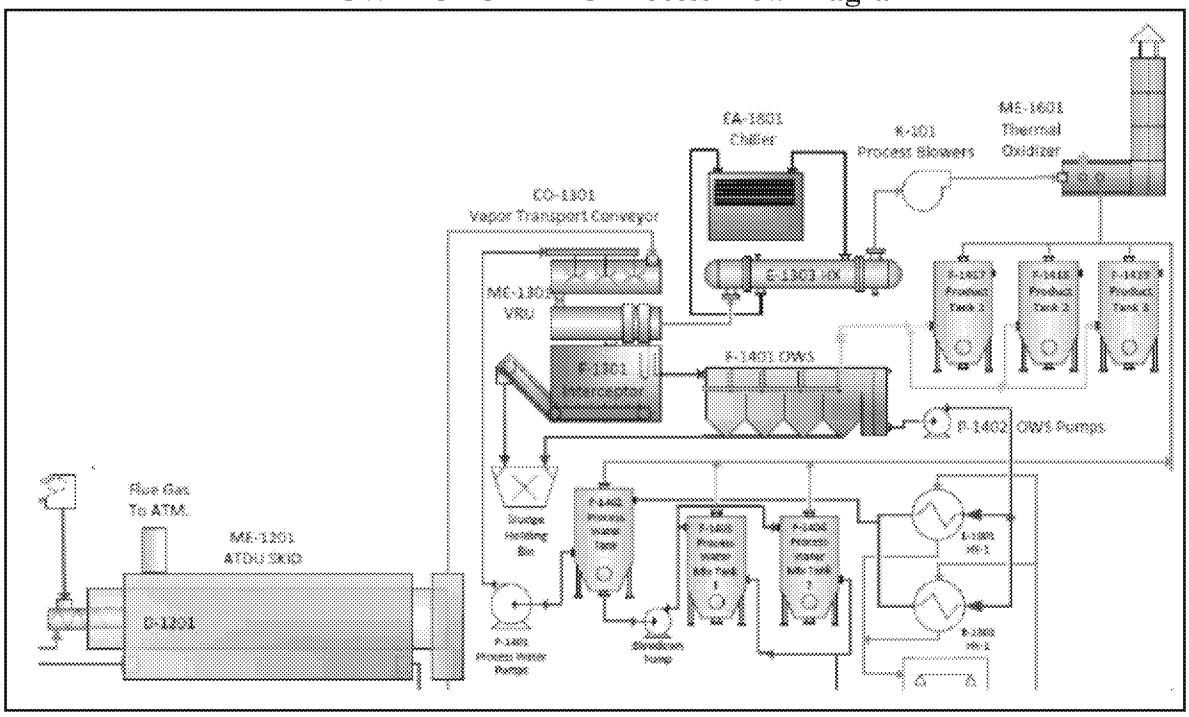
CWM Potential to Emit Hazardous Air Pollutants

Hazardous Air Pollutant	CWM Potential to Emit (lb/yr)	DEQ Air Permit Limit	DEQ Compliance Test Requirements
Arsenic	440	None	None
Beryllium	440	None	None
Cadmium	440	None	None
Chromium	440	None	None
Cobalt	440	None	None

Lead	440	None	None
Manganese	440	None	None
Mercury	**5,690**	None	None
Nickel	440	None	None
Selenium	440	None	None
Hydrogen Chloride	**258,000**	None	None

APPENDIX A
CWM ORU-2 PROCESS FLOW AND CAPACITY REPRESENTATIONS

CWM ORU-2 TDU Process Flow Diagram



CWM ORU-2 TDU Throughput Capacity

RLC Technologies TDU System Capacity 30.0 MMBTU/HR

MMBTU/HR Required

	Tons per Hour											
% Water	1	2	3	4	5	6	7	8	9	10	11	12
0%	0.692	1.383	2.075	2.767	3.458	4.150	4.842	5.533	6.225	6.917	7.608	8.300
5%	0.898	1.796	2.694	3.591	4.489	5.387	6.285	7.183	8.081	8.979	9.877	10.774
10%	1.104	2.208	3.312	4.416	5.520	6.624	7.729	8.833	9.937	11.041	12.145	13.249
15%	1.310	2.621	3.931	5.241	6.551	7.862	9.172	10.482	11.792	13.103	14.413	15.723
20%	1.516	3.033	4.549	6.066	7.582	9.099	10.615	12.132	13.648	15.165	16.681	
25%	1.723	3.445	5.168	6.891	8.613	10.336	12.059	13.781	15.504	17.227		
30%	1.929	3.858	5.787	7.716	9.644	11.573	13.502	15.431	17.360			
35%	2.135	4.270	6.405	8.540	10.675	12.811	14.946	17.081				
40%	2.341	4.683	7.024	9.365	11.706	14.048	16.389					
45%	2.547	5.095	7.642	10.190	12.737	15.285	17.832					
50%	2.754	5.507	8.261	11.015	13.769	16.522						

APPENDIX B

SIMPLE AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT
Department of Environmental Quality
Eastern Region

Permit No.: 11-0002-SI-01

ED_002427A_00000317-00009

State of Oregon Department of Environmental Quality

SIMPLE AIR CONTAMINANT DISCHARGE PERMIT REVIEW REPORT

Department of Environmental Quality
Eastern Region

Source Information:

SIC	4953
NAICS	562211

Source Categories (Table 1 Part, code)	B,85
Public Notice Category	I

Compliance and Emissions Monitoring Requirements:

FCE	No
Compliance schedule	No
Unassigned emissions	No
Emission credits	No
Special Conditions	No

Source test [date(s)]	No
COMS	No
CEMS	No
PEMS	No
Ambient monitoring	No

Reporting Requirements

Annual report (due date)	2/15
Quarterly report (due dates)	No

Monthly report (due dates)	No
Excess emissions report	No
Other (specify)	No

Air Programs

Synthetic Minor (SM)	No
SM -80	No
NSPS (list subparts)	IIII
NESHAP (list subparts)	ZZZZ
Part 68 Risk Management	No
CFC	No

NSR	No
PSD	No
RACT	No
TACT	X
Other (specify)	No

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PERMITTING

PERMITTEE IDENTIFICATION

1. Chemical Waste Management of the Northwest, Inc. operates a hazardous waste and polychlorinated biphenyl (PCB) treatment, storage, and disposal facility about 12 miles south-southwest of Arlington.

PERMITTING ACTION

2. The proposed permit is a modification of an existing Air Contaminant Discharge Permit (ACDP) that was issued on 2/7/2014 is scheduled to expire on 2/1/2019.

OTHER PERMITS

3. Other permits issued or required by the DEQ for this source include a Hazardous Waste Treatment Storage and Disposal Permit ORD089452353 and a NPDES Storm Water Permit 100043.

ATTAINMENT STATUS

4. The source is located in an attainment area for all pollutants.

5. The source is not located within 10 kilometers of any Class I Air Quality Protection Area.

SOURCE DESCRIPTION

OVERVIEW

6. The permittee operates a hazardous waste and PCB treatment, storage and disposal facility. The facility began accepting waste about 1977.

7. The following changes have been made to the facility since the last permit renewal:

   a. The permittee has proposed to supplement the indirect heating of the ORU using treated landfill gas generated at the adjacent Columbia Ridge Landfill and Recycling Center. Currently the 30 MMBtu/hr burners of the ORU are fueled by propane only. The burners will be allowed to combust propane, landfill gas, or any combination of the two fuels.
   b. A new 6 MMBtu/hr thermal oxidizer has been proposed to replace the existing elevated enclosed flare on the ORU.

c. Several above-ground storage tanks associated with the ORU are being added to the inventory of tanks at the facility. These 20 new tanks have a capacity of 20,000 gallons or less and are not subject to the New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Subpart Kb). Due to the vapor pressure of the liquids stored in these tanks, emissions from these units are considered to have de-minimus emissions.
d. A system for collecting vapor from the waste feed hopper and conveyors will be installed on the ORU. The vapors will be routed to the thermal oxidizer.
e. A series of heat exchangers, cooling towers, carbon and sand filters, and pumping systems will be installed on the ORU. These systems are sealed units used to process liquids and will not vent to the atmosphere.
f. New fuel storage tanks for propane and landfill gas used to heat the ORU will be installed.
g. A new propane-fired 1.046 MMBtu/hr boiler will be installed.
h. A new emergency 600 bhp generator will provide backup power in case of emergencies.

PROCESS AND CONTROL DEVICES

8. Hazardous waste is received packaged in according to U.S. Dept. of Transportation standards. Containers are temporarily stored to allow for sampling and waste conformance before processing. Wastes that are similar may be stored in approved areas to facility on-site treatment or subsequent treatment off-site.

a. **Bulk Storage:** Bulk materials received by the facility are stored in bulk storage buildings B-1, B-2, B-4 and B-5. These buildings operate under negative pressure to prevent fugitives and vent through baghouses that have a 98% control efficiency.
b. **Solidification** involves treatment of liquids and semi-solids with reagents that form a solid material and does not necessarily involve a chemical reaction between the contaminants and the solidifying reagents. Contaminant migration is thus restricted. The process takes place outdoors, but the material is wet which suppresses fugitive dust emissions. Emissions are uncontrolled.
c. **Stabilization/Encapsulation** involves treatment with reagents that chemically reduce the hazard potential of waste by converting the contaminants into less soluble, mobile or toxic forms. Macro encapsulation also includes the use of a high density polyethylene (HDPE) vault to encapsulate the waste that has been mixed with the stabilization agent. Stabilization is performed outdoors. Water may be added to mitigate fugitive dust emissions.
d. **Solar Evaporation Impoundments:** Aqueous liquid wastes are placed into a surface impoundment for evaporation. These wastes have been treated in the Wastewater Treatment Unit or otherwise treated to meet RCRA standards. These units are insignificant sources of volatile compounds.

e. **Bioremediation** relies on micro-organisms such as bacteria or fungi to transform hazardous chemicals (petroleum hydrocarbons, nitroaromatics and nitroamines, chlorinated pesticides and other select organics) into less toxic or non-toxic substances. Bioremediation activities occur in building B-5, which employs a baghouse for dust control.

f. **Landfilling Operation:** The wastes disposed of on-site are previously treated or treated on-site to meet the stringent standards for disposal under the RCRA regulations. Due to the RCRA pre-treatment requirements, the wastes placed in the landfill organic emissions from the landfill are insignificant. A limited amount of cover soil is used during the landfilling activities which produce some particulate emissions.

g. **Organic Recovery Unit (ORU):** The organic recovery unit was originally constructed in 2008 and will be modified with this permit modification. The ORU physically treats soil or other media contaminated with petroleum products or other organics. The organics are thermally desorbed from the media at low temperatures using indirect heat. The media is cooled, moisturized and tested for compliance with RCRA requirements before being landfilled. The organic vapors are condensed with the resulting liquid being recycled or treated prior to disposal. Any residual non-condensable gas is destroyed in a thermal oxidizer.

COMPLIANCE

9. The facility was inspected on 10/29/2012 and found to be out of compliance with permit conditions for failure to properly monitor operation of the ORU. This was also a violation of conditions in the Hazardous Waste Permit. The Air Quality Program did not refer this violation for enforcement since it was referred by the Hazardous Waste Program. On 1/23/2013 an $18,400 civil penalty was assessed for the violation. Conditions which led to the violation have since been corrected.

10. During the prior permit period there were no, complaints recorded for this facility.

EMISSIONS

11. 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	0	0	0	24	24	0
PM_{10}	0	0	0	14	14	0
$PM_{2.5}$	0	0	0	9	9	0
SO_2	0	0	0	39	39	0
NO_x	0	0	0	39	39	0
CO	0	0	0	99	99	0
VOC	0	0	0	39	39	0
GHG (CO_2e)	0	0	0	74,000	74,000	0

a. The netting basis is zero for Simple ACDPs in accordance with OAR 340-222-0040(3).
b. The previous PSEL is the PSEL in the last permit.
c. For Simple ACDPs, The proposed PSELs for all pollutants are equal to the Generic PSEL in accordance with OAR 340-216-0064(3)(b). The actual emissions are calculated in the Detail Sheets attached to this Review Report.
d. The PSEL is a federally enforceable limit on the potential to emit.

SIGNIFICANT EMISSION RATE ANALYSIS

12. 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.

13. An analysis of the proposed PSEL increases over the Netting Basis is shown in the following table.

Pollutant	SER	Requested Increase Over Previous Netting Basis	Increase Due to Utilizing Capacity that Existed in Baseline Period	Increase Due to Physical Changes or Changes in Method of Operation	Increase Due to Changes to Rules (i.e., the Generic PSEL)
PM	25	24	0	13	11
PM_{10}	15	14	0	6	8
$PM_{2.5}$	10	9	0	3	6
SO_2	40	39	0	12	27
NO_x	40	39	0	23	16
CO	100	99	0	30	69
VOC	40	39	0	15	24
GHG (CO_2e)	75,000	74,000	0	27,480	46,520

TITLE V MAJOR SOURCE APPLICABILITY

14. A major source is a facility that has the potential to emit 100 tons/yr or more of any criteria pollutant or 10 tons/yr or more of any single HAP or 25 tons/yr or more of combined HAPs. This facility is not a major source of emissions. The basis for this determination can be found in the Detail Sheets attached to this Review Report.

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

15. The New Source Performance Standards (NSPS) for boilers (Subparts D, Da, Db, and Dc) do not apply to the new boiler (unit ME-1902) because the rated design heat capacity for this boiler is 1.046 MMBtu/hr which is less than the minimum 10 MMBtu/hr regulated by these standards.

16. The permittee may either contract with a third party to operate a concrete crusher on-site or install its own concrete crusher. If a third party is used, they should have any applicable permits from DEQ. If the permittee decides to install and operate their own concrete crusher they may be subject to some additional regulations. The concrete crusher would not be subject to the NSPS for nonmetallic mineral processing plants (Subpart OOO) because concrete does not fit the definition of nonmetallic minerals (40 CFR 60.671).

17. A diesel engine may be used to power the concrete crushing operation or to provide backup power to the facility in case of emergencies. These engines would be subject to the NSPS for Stationary Compression Ignition Internal Combustion Engines (Subpart IIII). The engine supporting concrete crushing would be approximately 100 kW in size and have a displacement of less than 30 liters per cylinder. This engine must be certified to meet the emission standards applicable for the model year. [40 CFR 60.4204(b)]

    The emergency generator is rated at 600 bhp (447 kW) and must also be certified to meet the emission standards applicable for the model year. [40 CFR 60.4205(b)]

NESHAPS/MACT APPLICABILITY

18. The National Emission Standard for Hazardous Air Pollutants (NESHAP) for boilers at area sources of HAP emissions (Subpart JJJJJJ) does not apply to the new boiler (unit ME-1902) because gas-fired units (including propane gas) are exempt from this regulation. [40 CFR 63.11195(e)]

19. The NESHAP for Stationary Reciprocating Internal Combustion Engines (Subpart ZZZZ) is applicable to the emergency generator and concrete crusher engines. Both engines would be considered new (commenced construction after 6/12/2006). As new engines located at an area source of HAP emissions the NESHAP requirements are met by meeting the requirements of NSPS Subpart IIII. No further NESHAP requirements under Subpart ZZZZ are applicable. [40 CFR 63.6590(c)]

RACT APPLICABILITY

20. The RACT rules are not applicable to this source because it is not in the Portland AQMA, Medford AQMA, or Salem SKATS.

TACT APPLICABILITY

21. The source is meeting the states TACT/Highest and Best Rules by monitoring the temperature of the organic recovery unit and thermal oxidizer.

PUBLIC NOTICE

22. Pursuant to OAR 340-216-0064(4)(b)(A), a simple technical permit modification of a Simple Air Contaminant Discharge Permit requires no prior public notice or opportunity for participation in accordance with OAR 340-209-0030(3)(a). However, DEQ will maintain a list of all simple technical permit modifications and make the list available for public review.

DW:ww

ATTACHMENT A: DETAIL SHEETS

Particulate

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Stabilization	45,000	ton/yr	1.36E-04	lb/ton[a]	AP-42 Section 13.2.4	0.003
Solidification	12,000	ton/yr	0.120	lb/ton[b]	AP-42 Eq 11.12-1	0.72
Micro Encapsulation	2,500	ton/yr	0.143	lb/ton	Source Estimate	0.18
Macro Encapsulation	8,000	ton/yr	0.13	lb/ton	Source Estimate	0.52
Rock Crusher-Building B1	78,000	ton/yr	1.08E-04	lb/ton[c]	AP-42 Table 11.19.2-2	0.004
Building B4	15,000	ton/yr	9.24E-07	lb/ton[d]	AP-42 Section13.2.4	6.93E-06
Bioremediation/ORU Storage Building B5	438,000	ton/yr	1.02E-08	lb/ton[e]	AP-42 Section13.2.4	2.23E-06
Propane (ORU)	1,500	Mgal/yr	0.7	lb/Mgal	AP-42 Table 1.5-1	0.53
LFG (ORU)	245.46	MMdscf/yr[f]	9.35	lb/MMdscf	AP-42 Table 2.4-4	1.15
Thermal Oxidizer (TOU-1)	714	Mgal/yr	0.7	lb/MMdscf[g]	AP-42 Table 1.5-1	0.25
ORU Discharge (V-1503)	438,000	ton/yr	2.56E-07	lb/ton[h]	AP-42 Section 13.2.4	5.61E-05
ORU Boiler (ME-1902)	100.69	Mgal/yr	0.7	lb/Mgal	AP-42 Table 1.5-1	3.52E-02
Unpaved Roads	12,480	VMT/yr	1.31	lb/VMT[i]	AP-42 Section 13.2.2	8.2
Cover Soil	20,000	ton/yr	0.118	lb/ton[j]	AP-42 Section 11.9	1.2
Material Transfer-Offload	100,000	ton/yr	1.46E-04	lb/ton	AP-42 Section 13.2.4	0.007
Reagent Transfer	100,000	ton/yr	1.46E-04	lb/ton	AP-42 Section 13.2.4	0.007
Concrete Crushing	78,000	ton/yr	1.46E-03	lb/ton[k]	AP-42 Section 11.19.2	0.06
Generator	209,196	hp-hr/yr[l]	0.0022	lb/hp-hr	AP-42 Section 3.3	0.2
Waste Oil Heater	2,200	gal/yr	3.3	lb/Mgal	AP-42 Section 1.11-1	0.004
Propane Heater	1,400	gal/yr	0.7	lb/Mgal	AP-42 Section 1.5-1	0.0005
Total Particulate Emissions						**13.07**

a. Assumes 7 mph wind and 21% moisture
b. Assumes 7 mph wind and 60% moisture
c. Assumes baghouse control of 98%
d. Assumes 0.001 mph wind (inside building) and 0.2% moisture
e. Assumes 0.001 mph wind (inside building) and 5% moisture
f. 467 cfm of LFG flow for 8760 hr/yr, emission factor 17 lb/MMdscf methane, LFG is 55% methane
g. Assumes both fume and pilot emissions similar to propane emissions
h. Assumes 0.001 mph wind (inside building), 0.5% moisture, 98% control (BH)
i. Assumes 80% control of particulate due to watering
j. Combination of activities: bulldozing (AP-42 Table 11.9-1, 7% silt, 20% moisture, 32 ton/day, 10 hr/day)+scraper removing topsoil (AP-42 Table 11.9-4)+unload topsoil (AP-42 Table 11.9-4), 75% control
k. Combination of activities: controlled emissions for truck unload, transfer to crusher, tertiary crushing, and truck load
l. Assumes 100 kW (134.1 hp) diesel engine operating 1560 hr/yr.

PM_{10}

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Stabilization	45,000	ton/yr	6.45E-05	lb/ton[a]	AP-42 Section 13.2.4	0.001
Solidification	12,000	ton/yr	0.040	lb/ton[b]	AP-42 Eq 11.12-1	0.24
Micro Encapsulation	2,500	ton/yr	0.045	lb/ton	Source Estimate	0.06
Macro Encapsulation	8,000	ton/yr	0.0587	lb/ton	Source Estimate	0.23
Rock Crusher-Building B1	78,000	ton/yr	4.80E-05	lb/ton[c]	AP-42 Table 11.19.2-2	0.002
Building B4	15,000	ton/yr	4.37E-07	lb/ton[d]	AP-42 Section13.2.4	3.28E-06
Bioremediation/ORU storage Building B5	438,000	ton/yr	4.82E-09	lb/ton[e]	AP-42 Section13.2.4	1.06E-06
Propane (ORU)	1,500	Mgal/yr	0.7	lb/Mgal	AP-42 Table 1.5-1	0.53
LFG (ORU)	245.46	MMdscf/yr[f]	9.35	lb/MMdscf	AP-42 Table 2.4-5	1.15
Thermal Oxidizer (TOU-1)	714.223	Mgal/yr	0.7	lb/MMdscf[g]	AP-42 Table 1.5-1	0.25
ORU Discharge (V-1503)	438,000	ton/yr	2.42E-09	lb/ton[h]	AP-42 Section 13.2.4	5.31E-07
ORU Boiler (ME-1902)	100,690	gal/yr	0.7	lb/Mgal	AP-42 Table 1.5-1	3.52E-02
Unpaved Roads	12,480	VMT/yr	0.35	lb/VMT[i]	AP-42 Section 13.2.2	2.2
Cover Soil	20,000	ton/yr	0.095	lb/ton[j]	AP-42 Section 11.9	0.9
Material Transfer-Offload	100,000	ton/yr	6.91E-05	lb/ton	AP-42 Section 13.2.4	0.003
Reagent Transfer	100,000	ton/yr	6.91E-05	lb/ton	AP-42 Section 13.2.4	0.003
Concrete Crushing	78,000	ton/yr	7.02E-04	lb/ton[k]	AP-42 Section 11.19.2	0.03
Generator	209,196	hp-hr/yr[l]	0.0022	lb/hp-hr	AP-42 Section 3.3	0.2
Waste Oil Heater	2,200	gal/yr	2.85	lb/Mgal	AP-42 Section 1.11-1	3.14E-03
Propane Heater	1,400	gal/yr	0.7	lb/Mgal	AP-42 Section 1.5-1	4.90E-04
Total PM_{10} Emissions						**5.92**

a. Assumes 7 mph wind and 21% moisture
b. Assumes 7 mph wind and 60% moisture
c. Assumes baghouse control of 98%
d. Assumes 0.001 mph wind (inside building) and 0.2% moisture
e. Assumes 0.001 mph wind (inside building) and 5% moisture
f. 467 cfm of LFG flow for 8760 hr/yr, emission factor 17 lb/MMdscf methane, LFG is 55% methane
g. Assumes both fume and pilot emissions similar to propane emissions
h. Assumes 0.001 mph wind (inside building), 0.5% moisture, 98% control (BH)
i. Assumes 80% control of particulate due to watering
j. Combination of activities: bulldozing (AP-42 Table 11.9-1, 7% silt, 20% moisture, 32 ton/day, 10 hr/day)+scraper removing topsoil (AP-42 Table 11.9-4)+unload topsoil (AP-42 Table 11.9-4), 75% control
k. Combination of activities: controlled emissions for truck unload, transfer to crusher, tertiary crushing, and truck load
l. Assumes 100 kW (134.1 hp) diesel engine operating 1560 hr/yr.

$PM_{2.5}$

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Stabilization	45,000	ton/yr	9.77E-06	lb/ton[a]	AP-42 Section 13.2.4	0.0002
Solidification	12,000	ton/yr	1.29E-05	lb/ton[b]	AP-42 Eq 11.12-1	0.0001
Micro Encapsulation	2,500	ton/yr	0.00001	lb/ton	Source Estimate	1.25E-05
Macro Encapsulation	8,000	ton/yr	0.00001	lb/ton	Source Estimate	4.00E-05
Rock Crusher-Building B1	78,000	ton/yr	1.30E-05	lb/ton	AP-42 Table 11.19.2-2	0.001
Building B4	15,000	ton/yr	6.62E-08	lb/ton[c]	AP-42 Section13.2.4	4.96E-07
Bioremediation/ORU storage Building B5	438,000	ton/yr	7.31E-10	lb/ton[d]	AP-42 Section13.2.4	1.60E-07
Propane (ORU)	1,500	Mgal/yr	0.7	lb/Mgal	AP-42 Table 1.5-1	0.53
LFG (ORU)	245.46	MMdscf/yr[e]	9.35	lb/MMdscf	AP-42 Table 2.4-5	1.15
Thermal Oxidizer (TOU-1)	714.223	Mgal/yr	0.7	lb/MMdscf[f]	AP-42 Table 1.5-1	0.25
ORU Discharge (V-1503)	438,000	ton/yr	1.38E-09	lb/ton[g]	AP-42 Section 13.2.4	3.03E-07
ORU Boiler (ME-1902)	100,690	gal/yr	0.7	lb/Mgal	AP-42 Table 1.5-1	3.52E-02
Unpaved Roads	12,480	VMT/yr	0.04	lb/VMT[h]	AP-42 Section 13.2.2	0.2
Cover Soil	20,000	ton/yr	0.034	lb/ton[i]	AP-42 Section 11.9	0.3
Material Transfer-Offload	100,000	ton/yr	1.05E-05	lb/ton	AP-42 Section 13.2.4	0.001
Reagent Transfer	100,000	ton/yr	1.05E-05	lb/ton	AP-42 Section 13.2.4	0.001
Concrete Crushing	78,000	ton/yr	2.29E-04	lb/ton[j]	AP-42 Section 11.19.2	0.009
Generator	209,196	hp-hr/yr[k]	0.0022	lb/hp-hr	AP-42 Section 3.3	0.2
Waste Oil Heater	2,200	gal/yr	2.85	lb/Mgal	AP-42 Section 1.11-1	3.14E-03
Propane Heater	1,400	gal/yr	0.7	lb/Mgal	AP-42 Section 1.5-1	4.90E-04
Total $PM_{2.5}$ Emissions						**2.77**

a. Assumes 7 mph wind and 21% moisture
b. Assumes 7 mph wind and 60% moisture
c. Assumes 0.001 mph wind (inside building) and 0.2% moisture
d. Assumes 0.001 mph wind (inside building) and 5% moisture
e. 467 cfm of LFG flow for 8760 hr/yr, emission factor 17 lb/MMdscf methane, LFG is 55% methane
f. Assumes both fume and pilot emissions similar to propane emissions
g. Assumes 0.001 mph wind (inside building), 0.5% moisture, 98% control (BH)
h. Assumes 80% control of particulate due to watering
i. Combination of activities: bulldozing (AP-42 Table 11.9-1, 7% silt, 20% moisture, 32 ton/day, 10 hr/day)+scraper removing topsoil (AP-42 Table 11.9-4)+unload topsoil (AP-42 Table 11.9-4), 75% control
j. Combination of activities: controlled emissions for truck unload, transfer to crusher, tertiary crushing, and truck load
k. Assumes 100 kW (134.1 hp) diesel engine operating 1560 hr/yr.

SO_2

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Propane (ORU)	1,500	Mgal/yr	11.22	lb/Mgal[a]	AP-42 Section 1.5	8.41
LFG (ORU)	245.46	MMdscf/yr	49.9	lb/MMdscf[b]	Source Estimate	6.12
Thermal Oxidizer (TOU-1)	714.223	Mgal/yr	11.22	lb/Mgal[a]	AP-42 Table 1.5-1	4.01
ORU Boiler (ME-1902)	100,690	gal/yr	11.22	lb/Mgal[a]	AP-42 Table 1.5-1	0.56
Crusher Generator	209,196	hp-hr/yr[c]	2.05E-03	lb/hp-hr	AP-42 Section 3.3	0.2
Waste Oil Heater	2,200	gal/yr	214	lb/Mgal[d]	AP-42 Section 1.11-2	0.24
Propane Heater	1,400	gal/yr	0.01	lb/Mgal[e]	AP-42 Section 1.5-1	7.00E-06
Total SO_2 Emissions						**19.56**

a. Assumes 15 grains sulfur/100 gallons
b. Assumes 300 ppmv sulfur content of LFG
c. Assumes 100 kW (134.1 hp) diesel engine operating 1560 hr/yr
d. Assumes 2% sulfur
e. Assumes 0.1 grain sulfur per 100 cf of gas

NO_x

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Propane (ORU)	1,500	Mgal/yr	13	lb/Mgal	AP-42 Table 1.5-1	9.75
LFG (ORU)	245.46	MMdscf/yr	37.4	lb/MMdscf	AP-42 Table 13.5-1	4.59
Thermal Oxidizer (TOU-1)	714.223	Mgal/yr	13	lb/MMdscf	AP-42 Table 1.5-1	4.64
ORU Boiler (ME-1902)	100,690	gal/yr	13	lb/Mgal	AP-42 Table 1.5-1	0.65
Crusher Generator	209,196	hp-hr/yr	0.031	lb/hp-hr	AP-42 Section 3.3	3.2
Waste Oil Heater	2,200	gal/yr	16	lb/Mgal	AP-42 Section 1.11-2	0.02
Propane Heater	1,400	gal/yr	13	lb/Mgal	AP-42 Section 1.5-1	0.01
Total NO_x Emissions						**22.9**

CO

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Propane (ORU)	1,500	Mgal/yr	7.5	lb/Mgal	AP-42 Table 1.5-1	5.63
LFG (ORU)	245.46	MMdscf/yr	170.5	lb/MMdscf	AP-42 Table 13.5-2	20.93
Thermal Oxidizer (TOU-1)	714.223	Mgal/yr	7.5	lb/MMdscf	AP-42 Table 1.5-1	2.68
ORU Boiler (ME-1902)	100,690	gal/yr	7.5	lb/Mgal	AP-42 Table 1.5-1	0.38
Crusher Generator	209,196	hp-hr/yr	6.68E-03	lb/hp-hr	AP-42 Section 3.3	0.7
Waste Oil Heater	2,200	gal/yr	2.1	lb/Mgal	AP-42 Section 1.11-2	0.002
Propane Heater	1,400	gal/yr	7.5	lb/Mgal	AP-42 Section 1.5-1	5.25E-03
Total CO Emissions						**30.3**

VOC

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Bioremediation/ORU storage Building B5	438,000	ton/yr			Ch Waste Model	4.46
Propane (ORU)	1,500	Mgal/yr	0.8	lb/Mgal	AP-42 Table 1.5-1	0.60
LFG (ORU)	245.46	MMdscf/yr	77	lb/MMdscf	AP-42 Table 13.5-1	9.45
Thermal Oxidizer (TOU-1)	714.223	Mgal/yr	1.0	lb/MMdscf	AP-42 Table 1.5-1	0.36
ORU Boiler (ME-1902)	100,690	gal/yr	1	lb/Mgal	AP-42 Table 1.5-1	0.05
Crusher Generator	209,196	hp-hr/yr	2.47E-03	lb/hp-hr	AP-42 Section 3.3	0.3
Waste Oil Heater	2,200	gal/yr	1.0	lb/Mgal	AP-42 Section 1.11-3	1.10E-03
Propane Heater	1,400	gal/yr	1.0	lb/Mgal	AP-42 Section 1.5-1	7.00E-04
Vehicle Fueling/Storage	27,312	gal/yr			EPA Tanks	0.03
ORUTNK1	6,300,000	gal/yr			EPA Tanks	0.006
ORUTNK2	6,300,000	gal/yr			EPA Tanks	0.006
Total VOC Emissions						**15.2**

Greenhouse Gas (GHG)

Emission Point	Operating Parameters		Emission Factor			ton/yr
			Rate		Reference	
Propane (ORU) CO_2	1,500	Mgal/yr	12,613	lb/Mgal	40 CFR 98 Table C-1	9,460
CH_4 (CO_2e)			15.0	lb/Mgal	40 CFR 98 Table C-2	11
N_2O (CO_2e)			35.88	lb/Mgal	40 CFR 98 Table C-2	27
LFG (ORU) CO_2	245.46	MMdscf/yr	103592.8	lb/MMdscf	40 CFR 98, LANDGEM	12,714
CH_4 (CO_2e)			81.6	lb/MMdscf	40 CFR 98, Table C-2	10
N2O (CO2e)			191.4	lb/MMdscf	40 CFR 98, Table C-2	23
Thermal Ox (TOU-1) CO_2	714.223	Mgal/yr	12613	lb/Mgal	40 CFR 98 Table C-1	4,504
CH_4 (CO_2e)			15.0	lb/Mgal	40 CFR 98 Table C-2	5
N_2O (CO_2e)			35.88	lb/Mgal	40 CFR 98 Table C-2	13
ORU Boiler (ME-1902) CO_2	100,690	gal/yr	12,613	lb/Mgal	40 CFR 98 Table C-1	635
CH_4 (CO_2e)			15.0	lb/Mgal	40 CFR 98 Table C-2	0.8
N_2O (CO_2e)			35.88	lb/Mgal	40 CFR 98 Table C-2	1.8
Crusher Generator CO_2	209,196	hp-hr/yr	0.41	lb/hp-hr	40 CFR 98 Table C-1	43
CH_4 (CO_2e)			4.20E-04	lb/hp-hr	40 CFR 98 Table C-2	0.04
N_2O (CO_2e)			1.00E-03	lb/hp-hr	40 CFR 98 Table C-2	0.10
Waste Oil Heater CO_2	2,200	gal/yr	22,513	lb/Mgal	40 CFR 98 Table C-1	25
CH_4 (CO_2e)			23	lb/Mgal	40 CFR 98 Table C-2	0.03
N_2O (CO_2e)			54	lb/Mgal	40 CFR 98 Table C-2	0.06
Propane Heater CO_2	1,400	gal/yr	12,613	lb/Mgal	40 CFR 98 Table C-1	8.8
CH_4 (CO_2e)			15.0	lb/Mgal	40 CFR 98 Table C-2	0.01
N_2O (CO_2e)			35.88	lb/Mgal	40 CFR 98 Table C-2	0.03
Total GHG Emissions						**27,482**

Hazardous Air Pollutants

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
1,1,2,2-Tetrachloroethane						
ORU LFG	245.5	MMscf/yr	2.15E-03	lb/MMscf	Engineering Estimate	**2.64E-04**
1,1,1-Trichloroethane						
ORU LFG	245.5	MMscf/yr	3.12E-04	lb/MMscf	Engineering Estimate	**3.83E-05**
1,1,2-Trichloroethane						
Waste Handling/Inspection	629	ton/yr	4.96	lb/ton	Engineering Estimate	1.56
Landfill	1,258,172	lb/yr	0.00274	lb/ton	Engineering Estimate	8.62E-04
Macro Encapsulation	599,024	lb/yr	7.68E-03	lb/ton	Engineering Estimate	1.15E-03
Stabilization	652,380	lb/yr	2.32E-05	lb/ton	Engineering Estimate	3.78E-06
Solidification	10,120	lb/yr	6.76E-05	lb/ton	Engineering Estimate	1.71E-07
Bioremediation	24,440	lb/yr	2.59E-02	lb/ton	Engineering Estimate	1.58E-04
Total						**1.56**
1,2,4-Trichlorobenzene						**-**
Waste Handling/Inspection	99,480	lb/yr	1.500E-04	lb/ton	Engineering Estimate	3.73E-06
Landfill	99,480	lb/yr	2.700E-06	lb/ton	Engineering Estimate	6.71E-08
Total						**3.8E-06**
1,4-Dichlorobenzene						**-**
Waste Handling/Inspection	202,000	lb/yr	0.000122	lb/ton	Engineering Estimate	6.16E-06
Macro Encapsulation	518,240	lb/yr	0.00918	lb/ton	Engineering Estimate	1.19E-03
Bioremediation	87,120	lb/yr	0.0134	lb/ton	Engineering Estimate	2.92E-04
Total						**1.5E-03**
1,1-Dichloroethane						
ORU LFG	245.5	MMscf/yr	1.10E-03	lb/MMscf	Engineering Estimate	**1.35E-04**
1,2-Dichloroethane						
ORU LFG	245.5	MMscf/yr	6.07E-03	lb/MMscf	Engineering Estimate	**7.44E-04**
1,1-Dichloroethene						
ORU LFG	245.5	MMscf/yr	2.27E-04	lb/MMscf	Engineering Estimate	**2.78E-05**
1,2-Dichloropropane						
ORU LFG	245.5	MMscf/yr	2.64E-04	lb/MMscf	Engineering Estimate	**3.25E-05**
7,12-Dimethylbenz(a)anthr						
ORU Boiler	100,690	gal/yr	4.450E-04	lb/Mgal	AP-42 Table 1.4-3	**2.24E-05**
1,3-Butadiene						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	32.46	lb/MMscf	Engineering Estimate	0.33
Concrete Crush Engines	7,941	MMBtu/yr	3.91E-05	lb/MMBtu	AP-42 Table 3.3-2	1.55E-04
Total						**0.33**
1,4-Dioxane						
Macro Encapsulation	1,332,262	lb/yr	2.550E-04	lb/ton	Engineering Estimate	**8.49E-05**
3-Methylchloranthrene						
ORU Boiler	100,690	gal/yr	5.000E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
2-Methylnaphthalene						
ORU Boiler	100,690	gal/yr	6.670E-04	lb/Mgal	AP-42 Table 1.4-3	**3.36E-05**
2-Nitropropane						
Waste Handling/Inspection	280,292	lb/yr	0.007	lb/ton	Engineering Estimate	5.25E-04
Landfill	20,200	lb/yr	0.103	lb/ton	Engineering Estimate	5.20E-04
Macro Encapsulation	226,576	lb/yr	0.00148	lb/ton	Engineering Estimate	8.38E-05

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Stabilization	1,320	lb/yr	10.5	lb/ton	Engineering Estimate	3.47E-03
Total						**4.6E-03**
2,4-Dinitrotoluene						
Macro Encapsulation	511,200	lb/yr	0.00761	lb/ton	Engineering Estimate	**9.73E-04**
2,4,5 Trichlorophenol						
Macro Encapsulation	797,692	lb/yr	0.000426	lb/ton	Engineering Estimate	**8.50E-05**
Acetaldehyde						
Concrete Crush Engines	7,941	MMBtu/yr	7.67E-04	lb/MMBtu	AP-42 Table 3.3-2	**3.05E-03**
Acenaphthene						
ORU Boiler	100,690	gal/yr	5.000E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
Acetonitrile						
Macro Encapsulation	1,335,002	lb/yr	0.0000572	lb/ton	Engineering Estimate	**1.91E-05**
Acrolein						
Concrete Crush Engines	7,941	MMBtu/yr	9.25E-05	lb/MMBtu	AP-42 Table 3.3-2	**3.67E-04**
Acrylonitrile						
ORU LFG	245.5	MMscf/yr	1.06E-04	lb/MMscf	Engineering Estimate	**1.31E-05**
Anthracene						
ORU Boiler	100,690	gal/yr	6.670E-05	lb/Mgal	AP-42 Table 1.4-3	**3.36E-06**
Antimony						
Waste Oil Heater	2,200	gal/yr	0.0045	lb/Mgal	AP-42 Sec 1.11	**4.95E-06**
Arsenic						
Waste Oil Heater	2,200	gal/yr	0.06	lb/Mgal	AP-42 Sec 1.11	6.60E-05
Propane Space Heater	1,400	gal/yr	0.00013	lb/Mgal	CATEF	9.10E-08
Total						**6.61E-05**
Asbestos						
Macro Encapsulation	40,610	lb/yr	0.0575	lb/ton	Engineering Estimate	**5.84E-04**
Benz(a)anthracene						
ORU Boiler	100,690	gal/yr	5.00E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
Benzene						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	18.98	lb/MMscf	Engineering Estimate	0.19
ORU LFG	245.5	MMscf/yr	7.40E-03	lb/MMscf	Engineering Estimate	9.08E-04
ORU Propane	0.2	MM scf/yr	2.10E-03	lb/MM sf	Engineering Estimate	2.10E-07
ORU Boiler	100,690	gal/yr	5.84E-02	lb/Mgal	AP-42 Table 1.4-3	2.94E-03
Concrete Crush Engines	7,941	MMBtu/yr	9.33E-04	lb/MMBtu	AP-42 Table 3.3-2	3.70E-03
Waste Handling/Inspection	1,251,332	lb/yr	0.0000284	lb/ton	Engineering Estimate	8.88E-06
Landfill	1,251,332	lb/yr	0.00011	lb/ton	Engineering Estimate	3.44E-05
Macro Encapsulation	2,233,411	lb/yr	0.00188	lb/ton	Engineering Estimate	1.05E-03
Stabilization	652,380	lb/yr	0.0000742	lb/ton	Engineering Estimate	1.21E-05
Gas Tank	9,927	gal/yr	0.77	% VOC	AP-42 Sec 7.1	2.68E-04
Bioremediation	2,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-05
Bioremediation	62,060	lb/yr	0.0148	lb/ton	Engineering Estimate	2.30E-04
Bioremediation	257,480	lb/yr	0.0132	lb/ton	Engineering Estimate	8.50E-04
Bioremediation	440	lb/yr	1.98	lb/ton	Engineering Estimate	2.18E-04
Total						**0.20**
Benzo(a)pyrene						
ORU Boiler	100,690	gal/yr	3.34E-05	lb/Mgal	AP-42 Table 1.4-3	**1.68E-06**

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Benzo(b)fluoranthene						
ORU Boiler	100,690	gal/yr	5.00E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
Benzo(g,h,i)perylene						
ORU Boiler	100,690	gal/yr	3.34E-05	lb/Mgal	AP-42 Table 1.4-3	**1.68E-06**
Benzo(k)fluoranthene						
ORU Boiler	100,690	gal/yr	5.00E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
Beryllium						
Waste Oil Heater	2,200	gal/yr	0.0018	lb/Mgal	AP-42 Sec 1.11	1.98E-06
Propane Space Heater	1,400	gal/yr	0.00003	lb/Mgal	CATEF	2.10E-08
Total						**2.00E-06**
Cadmium						
Waste Oil Heater	2,200	gal/yr	0.012	lb/Mgal	AP-42 Sec 1.11	1.32E-05
Propane Space Heater	1,400	gal/yr	0.00006	lb/Mgal	CATEF	4.20E-08
Total						**1.32E-05**
Carbon Disulfide						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	0.95	lb/MMscf	Engineering Estimate	0.01
ORU LFG	245.5	MMscf/yr	8.91E-04	lb/MMscf	Engineering Estimate	1.09E-04
Waste Handling/Inspection	927,392	lb/yr	0.0000199	lb/ton	Engineering Estimate	4.61E-06
Landfill	927,392	lb/yr	0.000282	lb/ton	Engineering Estimate	6.54E-05
Macro Encapsulation	226,550	lb/yr	0.000141	lb/ton	Engineering Estimate	7.99E-06
Stabilization	648,420	lb/yr	0.0000105	lb/ton	Engineering Estimate	1.70E-06
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Total						**1.01E-02**
Carbon Tetrachloride						
ORU LFG	245.5	MMscf/yr	3.60E-04	lb/MMscf	Engineering Estimate	4.42E-05
Waste Handling/Inspection	980,272	lb/yr	0.0000189	lb/ton	Engineering Estimate	4.63E-06
Landfill	980,272	lb/yr	0.000122	lb/ton	Engineering Estimate	2.99E-05
Macro Encapsulation	743,516	lb/yr	0.00516	lb/ton	Engineering Estimate	9.59E-04
Stabilization	2,640	lb/yr	0.00105	lb/ton	Engineering Estimate	6.93E-07
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Total						**1.20E-03**
Carbonyl Sulfide						
ORU LFG	245.5	MMscf/yr	6.70E-04	lb/MMscf	Engineering Estimate	**8.22E-05**
Chlordane						
Macro Encapsulation	552,588	lb/yr	0.00694	lb/ton	Engineering Estimate	**9.59E-04**
Chlorobenzene						
ORU LFG	245.5	MMscf/yr	2.63E-04	lb/MMscf	Engineering Estimate	3.23E-05
Waste Handling/Inspection	10,013,702	lb/yr	0.000234	lb/ton	Engineering Estimate	5.86E-04
Landfill	10,013,702	lb/yr	0.000137	lb/ton	Engineering Estimate	3.43E-04
Macro Encapsulation	752,616	lb/yr	0.00523	lb/ton	Engineering Estimate	9.84E-04
Stabilization	652,380	lb/yr	0.0000487	lb/ton	Engineering Estimate	7.94E-06
Solidification	9,240	lb/yr	0.0315	lb/ton	Engineering Estimate	7.28E-05
Bioremediation	24,440	lb/yr	0.00259	lb/ton	Engineering Estimate	1.58E-05
Total						**2.04E-03**
Chloroform						
ORU LFG	245.5	MMscf/yr	2.79E-04	lb/MMscf	Engineering Estimate	**3.43E-05**

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Waste Handling/Inspection	5,280	lb/yr	0.00000001	lb/ton	Engineering Estimate	1.32E-11
Landfill	5,280	lb/yr	0.00000006	lb/ton	Engineering Estimate	7.92E-11
Macro Encapsulation	511,200	lb/yr	0.0075	lb/ton	Engineering Estimate	9.59E-04
Total						**9.93E-04**
Chromium						
Waste Oil Heater	2,200	gal/yr	0.18	lb/Mgal	Engineering Estimate	**1.98E-04**
Chrysene						
ORU Boiler	100,690	gal/yr	5.00E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
Cobalt						
Waste Oil Heater	2,200	gal/yr	0.0052	lb/Mgal	Engineering Estimate	**5.72E-06**
Copper						
Propane Space Heater	1,400	gal/yr	0.00031	lb/Mgal	Engineering Estimate	**2.17E-07**
Cresol						
Waste Handling/Inspection	854,796	lb/yr	0.00000457	lb/ton	Engineering Estimate	9.77E-07
Landfill	840,876	lb/yr	0.00000003	lb/ton	Engineering Estimate	6.31E-09
Macro Encapsulation	2,751,996	lb/yr	0.00397	lb/ton	Engineering Estimate	2.73E-03
Stabilization	3,960	lb/yr	0.00582	lb/ton	Engineering Estimate	5.76E-06
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Total						**2.90E-03**
Cyanide compounds						
Waste Handling/Inspection	12,320	lb/yr	0.0838	lb/ton	Engineering Estimate	2.58E-04
Landfill	12,320	lb/yr	1.27	lb/ton	Engineering Estimate	3.91E-03
Macro Encapsulation	4,980	lb/yr	0.000308	lb/ton	Engineering Estimate	3.83E-07
Leachate	489,840	lb/yr	0.0417	lb/ton	Engineering Estimate	5.11E-03
Total						**9.28E-03**
Dibenzo(a,h)anthracene						
ORU Boiler	100,690	gal/yr	3.34E-05	lb/Mgal	AP-42 Table 1.4-3	**1.68E-06**
Dibutylphthalate						
Macro Encapsulation	1,284,132	lb/yr	0.0000421	lb/ton	Engineering Estimate	**1.35E-05**
Dichlorobenzene						
ORU LFG	245.5	MMscf/yr	1.23E-03	lb/MMscf	Engineering Estimate	1.51E-04
ORU Propane	0.2	MM scf/yr	1.20E-03	lb/MM sf	Engineering Estimate	1.20E-07
ORU Boiler	100,690	gal/yr	3.34E-02	lb/Mgal	AP-42 Table 1.4-3	1.68E-03
Total						**1.83E-03**
Dimethyl Sulfate						
Waste Handling/Inspection	680	lb/yr	0.0375	lb/ton	Engineering Estimate	6.38E-06
Landfill	680	lb/yr	0.000285	lb/ton	Engineering Estimate	4.85E-08
Stabilization	680	lb/yr	52.5	lb/ton	Engineering Estimate	8.93E-03
Total						**8.93E-03**
Epichlorohydrin						
Waste Handling/Inspection	37,120	lb/yr	0.00327	lb/ton	Engineering Estimate	3.03E-05
Landfill	37,120	lb/yr	0.00167	lb/ton	Engineering Estimate	1.55E-05
Solidification	880	lb/yr	21	lb/ton	Engineering Estimate	4.62E-03
Total						**4.67E-03**
Ethyl Benzene						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	0.97	lb/MMscf	Engineering Estimate	0.01

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
ORU LFG	245.5	MMscf/yr	3.96E-02	lb/MMscf	Engineering Estimate	4.86E-03
Waste Handling/Inspection	1,493,160	lb/yr	0.0000199	lb/ton	Engineering Estimate	7.43E-06
Landfill	1,493,160	lb/yr	0.00000881	lb/ton	Engineering Estimate	3.29E-06
Macro Encapsulation	1,705,445	lb/yr	0.000955	lb/ton	Engineering Estimate	4.07E-04
Stabilization	649,300	lb/yr	0.0000122	lb/ton	Engineering Estimate	1.98E-06
Solidification	10,120	lb/yr	0.192	lb/ton	Engineering Estimate	4.86E-04
Gas Tank	9,927	gal/yr	0.04	% VOC	AP-42 Sec 7.1	1.39E-05
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Bioremediation	62,060	lb/yr	0.0148	lb/ton	Engineering Estimate	2.30E-04
Bioremediation	440	lb/yr	1.98	lb/ton	Engineering Estimate	2.18E-04
Total						**1.64E-02**
Ethyl Carbamate						
Macro Encapsulation	494	lb/yr	0.000151	lb/ton	Engineering Estimate	**1.86E-08**
Ethyl Chloride						
ORU LFG	245.5	MMscf/yr	1.33E-03	lb/MMscf	Engineering Estimate	1.63E-04
Waste Handling/Inspection	9,240	lb/yr	0.00015	lb/ton	Engineering Estimate	3.47E-07
Landfill	9,240	lb/yr	0.00402	lb/ton	Engineering Estimate	9.29E-06
Solidification	9,240	lb/yr	0.21	lb/ton	Engineering Estimate	4.85E-04
Total						**6.58E-04**
Ethylene Dibromide						
ORU LFG	245.5	MMscf/yr	4.40E-04	lb/MMscf	Engineering Estimate	5.40E-05
Waste Handling/Inspection	99,480	lb/yr	0.00015	lb/ton	Engineering Estimate	3.73E-06
Total						**5.77E-05**
Ethyl Dichloride						
Waste Handling/Inspection	4,797,690	lb/yr	0.0000002	lb/ton	Engineering Estimate	2.40E-07
Landfill	4,797,690	lb/yr	0.00000373	lb/ton	Engineering Estimate	4.47E-06
Total						**4.71E-06**
Ethylene Dichloride						
Macro Encapsulation	519,280	lb/yr	0.00751	lb/ton	Engineering Estimate	**9.75E-04**
Fluoranthene						
ORU Boiler	100,690	gal/yr	8.34E-05	lb/Mgal	AP-42 Table 1.4-3	**4.20E-06**
Fluorene						
ORU Boiler	100,690	gal/yr	7.78E-05	lb/Mgal	AP-42 Table 1.4-3	**3.92E-06**
Formaldehyde						
ORU Propane	0.2	MM scf/yr	7.50E-02	lb/MM sf	Engineering Estimate	7.50E-06
ORU Boiler	100,690	gal/yr	2.09E+00	lb/Mgal	AP-42 Table 1.4-3	1.05E-01
Concrete Crush Engines	7,941	MMBtu/yr	1.18E-03	lb/MMBtu	AP-42 Table 3.3-2	4.69E-03
Waste Handling/Inspection	68,626	lb/yr	0.0107	lb/ton	Engineering Estimate	1.84E-04
Landfill	68,626	lb/yr	0.629	lb/ton	Engineering Estimate	1.08E-02
Macro Encapsulation	513,908	lb/yr	0.0075	lb/ton	Engineering Estimate	9.64E-04
Solidification	41,556	lb/yr	20.8	lb/ton	Engineering Estimate	2.16E-01
Total						**0.34**
Heptachlor						
Macro Encapsulation	526,228	lb/yr	0.00729	lb/ton	Engineering Estimate	**9.59E-04**
Hexachlorobenzene						
Macro Encapsulation	511,200	lb/yr	0.00751	lb/ton	Engineering Estimate	**9.60E-04**

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Hexachlorocyclopentadiene						
Macro Encapsulation	511,200	lb/yr	0.0075	lb/ton	Engineering Estimate	**9.59E-04**
Hexachloroethane						
Macro Encapsulation	528,530	lb/yr	0.00728	lb/ton	Engineering Estimate	**9.62E-04**
Hexane						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	1.32	lb/MMscf	Engineering Estimate	0.01
ORU LFG	245.5	MMscf/yr	1.12E-02	lb/MMscf	Engineering Estimate	1.37E-03
ORU Propane	0.2	MM scf/yr	1.80	lb/MM sf	Engineering Estimate	1.80E-04
ORU Boiler	100,690	gal/yr	5.00E+01	lb/Mgal	AP-42 Table 1.4-3	2.52E+00
Gas Tank	9,927	gal/yr	1.84	% VOC	Engineering Estimate	6.40E-04
Total						**2.53**
Hydrochloric Acid						
ORU LFG	245.5	MMscf/yr	9.55E-02	lb/MMscf	Engineering Estimate	1.17E-02
Waste Handling/Inspection	1,509,560	lb/yr	0.0384	lb/ton	Engineering Estimate	1.45E-02
Landfill	1,509,560	lb/yr	0.164	lb/ton	Engineering Estimate	6.19E-02
Macro Encapsulation	17,900	lb/yr	0.206	lb/ton	Engineering Estimate	9.22E-04
Stabilization	49,060	lb/yr	249	lb/ton	Engineering Estimate	3.05
Solidification	440	lb/yr	1150	lb/ton	Engineering Estimate	1.27E-01
Total						**3.27**
Hydrogen Fluoride						
Waste Handling/Inspection	2,332,660	lb/yr	0.0242	lb/ton	Engineering Estimate	1.41E-02
Landfill	2,332,660	lb/yr	0.454	lb/ton	Engineering Estimate	2.65E-01
Macro Encapsulation	3,640	lb/yr	0.0226	lb/ton	Engineering Estimate	2.06E-05
Stabilization	650,620	lb/yr	0.109	lb/ton	Engineering Estimate	1.77E-02
Solidification	440	lb/yr	10.5	lb/ton	Engineering Estimate	1.16E-03
Total						**2.98E-01**
Indeno(1,2,3-cd)pyrene						
ORU Boiler	100,690	gal/yr	5.00E-05	lb/Mgal	AP-42 Table 1.4-3	**2.52E-06**
Lead						
Leachate	849,840	lb/yr	0.00162	lb/ton	Engineering Estimate	3.44E-04
Waste Oil Heater	2,200	gal/yr	0.025	lb/Mgal	Engineering Estimate	2.75E-05
Propane Space Heater	1,400	gal/yr	0.00051	lb/Mgal	Engineering Estimate	3.57E-07
Total						**3.72E-04**
Lindane						
Waste Handling/Inspection	2,640	lb/yr	0.0376	lb/ton	Engineering Estimate	2.48E-05
Landfill	2,640	lb/yr	0.00000004	lb/ton	Engineering Estimate	2.64E-11
Macro Encapsulation	545,548	lb/yr	0.00703	lb/ton	Engineering Estimate	9.59E-04
Stabilization	2,640	lb/yr	52.6	lb/ton	Engineering Estimate	3.47E-02
Total						**3.57E-02**
Manganese						
Waste Oil Heater	2,200	gal/yr	0.05	lb/Mgal	AP-42 Sec 1.11	5.50E-05
Propane Space Heater	1,400	gal/yr	0.00131	lb/Mgal	CATEF	9.17E-07
Total						**5.59E-05**
Methanol						
Macro Encapsulation	1,555,478	lb/yr	0.00109	lb/ton	Engineering Estimate	4.24E-04
Solidification	43,933	lb/yr	134	lb/ton	Engineering Estimate	1.47E+00

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Total						**1.47E+00**
Methoxychlor						
Macro Encapsulation	512,960	lb/yr	0.00748	lb/ton	Engineering Estimate	**9.59E-04**
Methyl Bromide						
Waste Handling/Inspection	513,908	lb/yr	0.00751	lb/ton	Engineering Estimate	9.65E-04
Stabilization	513,908	lb/yr	10.5	lb/ton	Engineering Estimate	1.35E+00
Total						**1.35E+00**
MIBK						
ORU LFG	245.5	MMscf/yr	1.45E-02	lb/MMscf	Engineering Estimate	1.78E-03
Waste Handling/Inspection	1,465,072	lb/yr	0.0224	lb/ton	Engineering Estimate	8.20E-03
Macro Encapsulation	1,708,303	lb/yr	0.0209	lb/ton	Engineering Estimate	8.93E-03
Stabilization	648,420	lb/yr	0.0691	lb/ton	Engineering Estimate	1.12E-02
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Bioremediation	21,580	lb/yr	0.0334	lb/ton	Engineering Estimate	1.80E-04
Total						**3.05E-02**
Methyl Methacrylate						
Macro Encapsulation	1,332,562	lb/yr	0.00024	lb/ton	Engineering Estimate	**8.00E-05**
Methyl Chloride						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	0.42	lb/MMscf	Engineering Estimate	0.004
ORU LFG	245.5	MMscf/yr	2.36E-04	lb/MMscf	Engineering Estimate	2.90E-05
Total						**4.38E-03**
Methylene Chloride						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	0.62	lb/MMscf	Engineering Estimate	0.006
ORU LFG	245.5	MMscf/yr	5.21E-03	lb/MMscf	Engineering Estimate	6.39E-04
Waste Handling/Inspection	1,230,295	lb/yr	0.00016	lb/ton	Engineering Estimate	4.92E-05
Macro Encapsulation	1,671,007	lb/yr	0.0275	lb/ton	Engineering Estimate	1.15E-02
Stabilization	648,420	lb/yr	0.0000126	lb/ton	Engineering Estimate	2.04E-06
Solidification	11,880	lb/yr	0.171	lb/ton	Engineering Estimate	5.08E-04
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Total						**1.92E-02**
Naphthalene						
ORU Propane	0.2	MM scf/yr	6.10E-04	lb/MM sf	Engineering Estimate	6.10E-08
ORU Boiler	100,690	gal/yr	1.70E-02	lb/Mgal	AP-42 Table 1.4-3	8.56E-04
Concrete Crush Engines	7,941	MMBtu/yr	8.48E-05	lb/MMBtu	AP-42 Table 3.3-2	3.37E-04
Waste Handling/Inspection	657,880	lb/yr	0.00144	lb/ton	Engineering Estimate	2.37E-04
Macro Encapsulation	33,240	lb/yr	0.0000682	lb/ton	Engineering Estimate	5.67E-07
Solidification	5,960	lb/yr	63	lb/ton	Engineering Estimate	9.39E-02
Bioremediation	72,160	lb/yr	0.00125	lb/ton	Engineering Estimate	2.26E-05
Bioremediation	62,060	lb/yr	0.0148	lb/ton	Engineering Estimate	2.30E-04
Total						**9.56E-02**
Nickel						
Waste Oil Heater	2,200	gal/yr	0.16	lb/Mgal	AP-42 Sec 1.11	1.76E-04
Propane Space Heater	1,400	gal/yr	0.00208	lb/Mgal	CATEF	1.46E-06
Total						**1.77E-04**
Nitrobenzene						

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Waste Handling/Inspection	284,662	lb/yr	0.0000753	lb/ton	Engineering Estimate	5.36E-06
Macro Encapsulation	737,758	lb/yr	0.0052	lb/ton	Engineering Estimate	9.59E-04
Stabilization	1,320	lb/yr	0.00421	lb/ton	Engineering Estimate	1.39E-06
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Total						**1.12E-03**
Pentachlorophenol						
Macro Encapsulation	803,852	lb/yr	0.00513	lb/ton	Engineering Estimate	1.03E-03
Bioremediation	72,160	lb/yr	0.00125	lb/ton	Engineering Estimate	2.26E-05
Bioremediation	77,800	lb/yr	0.00116	lb/ton	Engineering Estimate	2.26E-05
Bioremediation	1,208,400	lb/yr	0.00132	lb/ton	Engineering Estimate	3.99E-04
Total						**1.47E-03**
Phenanthrene						
ORU Boiler	100,690	gal/yr	4.73E-04	lb/Mgal	AP-42 Table 1.4-3	**2.38E-05**
Phenol						
Macro Encapsulation	2,138,019	lb/yr	0.0142	lb/ton	Engineering Estimate	7.59E-03
Solidification	35,916	lb/yr	10.9	lb/ton	Engineering Estimate	9.79E-02
Propane Space Heater	1,400	gal/yr	0.00108	lb/Mgal	CATEF	7.56E-07
Bioremediation	72,160	lb/yr	0.00125	lb/ton	Engineering Estimate	2.26E-05
Bioremediation	62,060	lb/yr	0.0148	lb/ton	Engineering Estimate	2.30E-04
Total						**1.06E-01**
Propionaldehyde						
Waste Handling/Inspection	128	lb/yr	0.0000225	lb/ton	Engineering Estimate	7.20E-10
Landfill	128	lb/yr	0.0503	lb/ton	Engineering Estimate	1.61E-06
Stabilization	128	lb/yr	21	lb/ton	Engineering Estimate	6.72E-04
Total						**6.74E-04**
PCB						
Macro Encapsulation	133,571	lb/yr	0.00692	lb/ton	Engineering Estimate	2.31E-04
Bioremediation	87,120	lb/yr	0.0134	lb/ton	Engineering Estimate	2.92E-04
Total						**5.23E-04**
Polycyclic organic matter						
ORU Propane	0.2	MM scf/yr	5.18E-05	lb/MM sf	Engineering Estimate	**5.18E-09**
Pyrene						
ORU Boiler	100,690	gal/yr	1.39E-04	lb/Mgal	AP-42 Table 1.4-3	**7.00E-06**
Selenium						
Propane Space Heater	1,400	gal/yr	0.00013	lb/Mgal	CATEF	**9.10E-08**
Styrene						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	0.47	lb/MMscf	Engineering Estimate	0.005
Waste Handling/Inspection	1,320	lb/yr	0.3	lb/ton	Engineering Estimate	9.90E-05
Landfill	1,320	lb/yr	0.097	lb/ton	Engineering Estimate	3.20E-05
Total						**4.99E-03**
Tetrachloroethylene						
ORU LFG	245.5	MMscf/yr	6.10E-03	lb/MMscf	Engineering Estimate	7.49E-04
Waste Handling/Inspection	6,873,033	lb/yr	0.0000176	lb/ton	Engineering Estimate	3.02E-05
Landfill	6,873,033	lb/yr	0.0000155	lb/ton	Engineering Estimate	2.66E-05
Macro Encapsulation	2,199,706	lb/yr	0.00191	lb/ton	Engineering Estimate	1.05E-03
Stabilization	652,380	lb/yr	0.0711	lb/ton	Engineering Estimate	1.16E-02

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Solidification	108,440	lb/yr	0.0209	lb/ton	Engineering Estimate	5.67E-04
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Bioremediation	87,120	lb/yr	0.0134	lb/ton	Engineering Estimate	2.92E-04
Bioremediation	70,320	lb/yr	0.0637	lb/ton	Engineering Estimate	1.12E-03
Total						**1.56E-02**
Toluene						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	16.23	lb/MMscf	Engineering Estimate	0.17
ORU LFG	245.5	MMscf/yr	1.33E-01	lb/MMscf	Engineering Estimate	1.64E-02
ORU Propane	0.2	MM scf/yr	3.40E-03	lb/MM sf	Engineering Estimate	3.40E-07
ORU Boiler	100,690	gal/yr	9.45E-02	lb/Mgal	AP-42 Table 1.4-3	4.76E-03
Concrete Crush Engines	7,941	MMBtu/yr	4.09E-04	lb/MMBtu	AP-42 Table 3.3-2	1.62E-03
Waste Handling/Inspection	6,719,434	lb/yr	0.0109	lb/ton	Engineering Estimate	1.83E-02
Landfill	6,719,434	lb/yr	0.0000292	lb/ton	Engineering Estimate	4.91E-05
Macro Encapsulation	2,260,276	lb/yr	0.0242	lb/ton	Engineering Estimate	1.37E-02
Stabilization	651,060	lb/yr	0.153	lb/ton	Engineering Estimate	2.49E-02
Solidification	10,120	lb/yr	0.0192	lb/ton	Engineering Estimate	4.86E-05
Gas Tank	9,927	gal/yr	0.66	wt % VOC	AP-42 Sec 7.1	2.30E-04
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Bioremediation	62,060	lb/yr	0.0148	lb/ton	Engineering Estimate	2.30E-04
Bioremediation	257,480	lb/yr	0.0132	lb/ton	Engineering Estimate	8.50E-04
Bioremediation	440	lb/yr	1.98	lb/ton	Engineering Estimate	2.18E-04
Total						**0.25**
Toxaphene						
Macro Encapsulation	513,908	lb/yr	0.00746	lb/ton	Engineering Estimate	**9.58E-04**
Trichloroethylene						
ORU LFG	245.5	MMscf/yr	2.42E-03	lb/MMscf	Engineering Estimate	2.97E-04
Waste Handling/Inspection	1,944,282	lb/yr	0.0000261	lb/ton	Engineering Estimate	1.27E-05
Landfill	1,944,282	lb/yr	0.0000547	lb/ton	Engineering Estimate	2.66E-05
Macro Encapsulation	2,022,186	lb/yr	0.00208	lb/ton	Engineering Estimate	1.05E-03
Stabilization	652,380	lb/yr	0.0711	lb/ton	Engineering Estimate	1.16E-02
Solidification	33,730	lb/yr	0.0594	lb/ton	Engineering Estimate	5.01E-04
Bioremediation	87,120	lb/yr	0.0134	lb/ton	Engineering Estimate	2.92E-04
Bioremediation	440	lb/yr	1.03	lb/ton	Engineering Estimate	1.13E-04
Total						**1.39E-02**
Triethylamine						
Waste Handling/Inspection	52,716	lb/yr	0.006	lb/ton	Engineering Estimate	7.91E-05
Landfill	52,716	lb/yr	0.00903	lb/ton	Engineering Estimate	1.19E-04
Solidification	52,716	lb/yr	8.42	lb/ton	Engineering Estimate	1.11E-01
Total						**1.11E-01**
Vinyl Acetate						
Waste Handling/Inspection	2,200	lb/yr	0.00827	lb/ton	Engineering Estimate	4.55E-06
Landfill	2,200	lb/yr	0.0407	lb/ton	Engineering Estimate	2.24E-05
Total						**2.69E-05**
Vinyl chloride						
ORU LFG	245.5	MMscf/yr	2.82E-03	lb/MMscf	Engineering Estimate	**3.46E-04**
Waste Handling/Inspection	812,660	lb/yr	0.0000205	lb/ton	Engineering Estimate	4.16E-06

Compound/Emission Point	Operating Parameters		Emission Factor			Emissions ton/yr
			Rate		Reference	
Landfill	812,660	lb/yr	0.00189	lb/ton	Engineering Estimate	3.84E-04
Macro Encapsulation	2,376,652	lb/yr	0.00000397	lb/ton	Engineering Estimate	2.36E-06
Stabilization	3,080	lb/yr	0.000361	lb/ton	Engineering Estimate	2.78E-07
Solidification	10,120	lb/yr	0.192	lb/ton	Engineering Estimate	4.86E-04
Total						**1.22E-03**
Vinylidene Chloride						
Waste Handling/Inspection	103,000	lb/yr	0.0000769	lb/ton	Engineering Estimate	1.98E-06
Landfill	103,000	lb/yr	0.00206	lb/ton	Engineering Estimate	5.30E-05
Macro Encapsulation	511,640	lb/yr	0.00206	lb/ton	Engineering Estimate	2.63E-04
Stabilization	2,640	lb/yr	0.0063	lb/ton	Engineering Estimate	4.16E-06
Solidification	880	lb/yr	0.00000759	lb/ton	Engineering Estimate	1.67E-09
Total						**3.23E-04**
m,p-Xylenes						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	2.50	lb/MMscf	Engineering Estimate	**0.03**
o-Xylenes						
Thermal Oxidizer (TOU-1)	20.5	MMscf/yr	0.97	lb/MMscf	Engineering Estimate	0.01
ORU LFG	245.5	MMscf/yr	1.15E-01	lb/MMscf	Engineering Estimate	1.41E-02
Concrete Crush Engines	7,941	MMBtu/yr	2.85E-04	lb/MMBtu	AP-42 Table 3.3-2	1.13E-03
Waste Handling/Inspection	1,670,200	lb/yr	0.146	lb/ton	Engineering Estimate	6.10E-02
Landfill	1,732,260	lb/yr	0.0000114	lb/ton	Engineering Estimate	4.94E-06
Macro Encapsulation	2,093,906	lb/yr	0.00252	lb/ton	Engineering Estimate	1.32E-03
Stabilization	651,060	lb/yr	0.142	lb/ton	Engineering Estimate	2.31E-02
Solidification	10,560	lb/yr	0.214	lb/ton	Engineering Estimate	5.65E-04
Gas Tank	9,927	gal/yr	0.05	wt % VOC	AP-42 Sec 7.1	1.74E-05
Bioremediation	24,440	lb/yr	0.0259	lb/ton	Engineering Estimate	1.58E-04
Bioremediation	62,060	lb/yr	0.0148	lb/ton	Engineering Estimate	2.30E-04
Bioremediation	440	lb/yr	1.98	lb/ton	Engineering Estimate	2.18E-04
Total						**0.11**
Zinc						
Propane Space Heater	1,400	gal/yr	0.00308	lb/Mgal	CATEF	**2.16E-06**
TOTAL HAP						**12.27**

APPENDIX C

TOXIC AIR POLLUTANTS PRESENT IN OIL BEARING HAZARDOUS WASTE FROM REFINERIES

ED_002427A_00000317-00033

WASTE_STREAM_NUMBER	WS_NAME	MERCURY_PPM
090087855	KINDER MORGAN PIPELINE SLUDGE AND SOLIDS	999
090087193	PIGGING WASTE (SLUDGE)	999
090099524	K050	763
090106031	RRDS - FAILS TS F037, <10PPM BZ, >1000PPM TPH, HG 628 PPM	628
090093937	RRDS - D018, >10PPM BZ, >1000PPM TPH, HG 550-600 PPM	572
090097246	OILY MATERIAL LEAD CHROME ARSENIC	571
090096509	OILY MATERIAL	571
090087036	DRIP LINE SOLIDS	496
090100216	ORBITAL SHAKER SLUDGE & REJECT FEED	434
090092675	ORBITAL SHAKER SLUDGE & REJECT FEED	434
Sample Size, n	N	10
Sample Mean	x (avg)	647
Sample variance	s^2	43,593
Std Dev	s	209
Standard error	sx=(s)/n^0.5	66
Standard error percent of avg	sx%	10%
"t" value at 90% conf. interval	t.20 See Table	1.39
90% Confidence Interval Limit	CI=(x-avg) + (t.20)(sx)	739

ED_002427A_00000317-00034

WASTE_STREAM_NUMBER	WS_NAME	LVM_SVM_PPM
090103576	CFU SPENT CATALYSTS - REACTORS 801A & 801B	10,490
090106661	SWMU 46 F037 WASTE	7,403
090101921	CHROMIUM CATALYST	7,000
090102582	HAZARDOUS TANK BOTTOMS (NON-REACTIVE)	2,848
090104169	FILTER PRESS CAKE; HAZARDOUS (NON-REACTIVE); TANK T-8A	2,848
090103346	SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST	2,510
090103466	SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST - DRUMS	2,510
090101053	CHD1 SPENT CATALYST	1,898
090105022	DECOKE RESIDUE	1,604
090102214	DHT D-601 SPENT HYDROTREATING CATALYST	1,300
Sample Size, n	N	10
Sample Mean	x (avg)	4,041
Sample variance	s^2	9,692,264
Std Dev	s	3,113
Standard error	sx=(s)/n^0.5	984
Standard error percent of avg	sx%	24%
"t" value at 90% conf. interval	t.20 See Table	1.39
90% Confidence Interval Limit	CI=(x-avg) + (t.20)(sx)	5,412

ED_002427A_00000317-00035

WASTE_STREAM_NUMBER	WS_NAME	CHLORINE_PPM
090099681	SCRUBBER FILTER WASTE/SLUDGE WITH PCE	20,000
090070123	HDU2 CATALYST	10,000
090064853	PIPELINE FLUSH	2,999
090064854	PIPELINE FLUSH	2,999
090064851	PIPELINE FLUSH	2,999
090081411	CHLORIDE ABSORBER CATALYST	1,499
090092326	PPE CONTAMINATED W/K170 CLARIFIED SLURRY OIL	1,400
090076026	PROCESS WASTE LIQUIDS (WITH CHLORIDES) FOR THERMAL RECYCLING	1,000
090100182	TANK SLUDGE	1,000
090073834	WASH PAD SLUDGE	999
Sample Size, n	N	10
Sample Mean	x (avg)	4,490
Sample variance	s^2	36,958,989
Std Dev	s	6,079
Standard error	sx=(s)/n^0.5	1,922
Standard error percent of avg	sx%	43%
"t" value at 90% conf. interval	t.20 See Table	1.39
90% Confidence Interval Limit	CI=(x-avg) + (t.20)(sx)	7,168

ED_002427A_00000317-00036

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090087855-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 486210	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: 25YD box Quantity: 100.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: [redacted] PIPELINE SLUDGE AND SOLIDS

2. Process Generating: Clean out of pipeline section / natural gas liquids holding pipes

3. Describe Physical Appearance: BLACK SLUDGE, SOLIDS, LIQUIDS, STRONG PETROLEUM ODOR

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: Black

7. Liquid phases: [ ] Single [ ] Double Layer [X] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0003301H					
21. RCRA Waste Codes	D001	D018				

22. Source Code: G19 | 23. Form Code: W609 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: ☐ TCLP ☒ TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
RUST / SCALE / DIRT / SEDIMENT	%	90	85	95
WATER	%	5	1	10
Mercury	MG/KG	2000	0	0
Benzene	MG/KG	2370	0	0
Toluene	MG/KG	6630	0	0
Ethylbenzene	MG/KG	374	0	0
XYLENE	MG/KG	4140	0	0
TOTAL HYDROCARBONS	MG/KG	202000	0	0

E. CHARACTERISTICS

1. Oxidizer	☐ Yes	☒ No	9. Reactive Sulfides ppm	☐ Yes	☒ No
2. Explosive	☐ Yes	☒ No	10. Reactive Cyanides ppm	☐ Yes	☒ No
3. Organic Peroxide	☐ Yes	☒ No	11. Water/Air Reactive	☐ Yes	☒ No
4. Shock Sensitive	☐ Yes	☒ No	12. Thermally Unstable	☐ Yes	☒ No
5. Tires	☐ Yes	☒ No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	☐ Yes	☒ No
6. Pyrophoric	☐ Yes	☒ No	14. Medical/Infectious Waste	☐ Yes	☒ No
7. Compressed Gases	☐ Yes	☒ No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	☐ Yes	☒ No
8. Halogenated Organics	☐ Yes	☒ No			

16. Hazardous Secondary Material? ☐ Yes ☐ No

17. Possibility of incidental liquids from transporation? ☒ Yes ☐ No

18. Is waste/material a solid using the paint filter test? ☐ Yes (solid) ☒ No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical _____ ☐ <= 2 ☒ 2<12.5 ☐ ≥12.5

20. Flash Point 70 °F ☒ < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? ☐ N/A ☒ Yes ☐ No

F. GENERATOR'S CERTIFICATION

☐ Yes ☒ No I certify this waste/material may be disposed of without further treatment.

☐ Yes ☐ N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090087855-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	[redacted]PIPELINE SLUDGE AND SOLIDS		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037 ☐ F038 ☐ K048 ☐ K049 ☐ K050 ☐ K051
☐ K052 ☐ K169 ☐ K170 ☐ K171 ☐ K172 ☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
Cleaning out a natural gas and natural gas liquids pipeline

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % ($Should total 100%)
Water	10
Solids (excluding Organics/Oil/TPH)	40
Organics /Oil/TPH	50

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☐ Liquid ☐ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	999
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			09/30/2014

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090087193-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [X] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 213112	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, LIQUID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3082 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: 55 Quantity: 1.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: PIGGING WASTE (SLUDGE)

2. Process Generating: LIQUID FROM PIPELINE MAINTENANCE ACTIVITIES

3. Describe Physical Appearance: SLUDGE/NO ODOR

4. Odor: [X] None [ ] Slight [ ] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: VARIES

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	RRCT219H					
21. RCRA Waste Codes	D018					

22. Source Code: G09 | 23. Form Code: W219 | 24. Management Code: (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
NATURAL GAS CONDENSATE	%		8	10
RUST, DIRT	%		60	75
Benzene	PPM	170	0	0
WATER	%		10	14.75
Toluene	PPM	590	0	0
Ethylbenzene	PPM	58	0	0
Xylene (mixed isomers)	PPM	530	0	0
Mercury	PPM	1700	0	0
TCLP MERCURY	MG/L	0.13	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point 141 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090087193-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	PIGGING WASTE (SLUDGE)		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
SLUDGE FROM NATURAL GAS PIPELINE PIGGING OPERATIONS

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	15
Solids (excluding Organics/Oil/TPH)	70
Organics /Oil/TPH	15

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☐ Liquid ☒ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	0
% of ASH	0

Specific Constituents (ppm)	
Halogens*	0
Mercury	999
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?		
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?		
☐ Yes	☒ No	Contains fuel oxygenates?	☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			09/12/2014

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090099524-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110 2911	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: Quantity: 25.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: K050

2. Process Generating: CLEANING OF HEAT EXCHANGER

3. Describe Physical Appearance: BLACK WITH MILD ODOR

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: BLACK BROWN

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [ ] Yes [X] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0015519H					
21. RCRA Waste Codes	K050					

22. Source Code: G13 | 23. Form Code: W519 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: ☐ TCLP ☐ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
HEAT EXCHANGER SLUDGE	%	100	98	100
WATER	%	2	1	2
DEBRIS	%		0	20

E. CHARACTERISTICS

1. Oxidizer	☐ Yes	X No	9. Reactive Sulfides ppm	☐ Yes	X No
2. Explosive	☐ Yes	X No	10. Reactive Cyanides ppm	☐ Yes	X No
3. Organic Peroxide	☐ Yes	X No	11. Water/Air Reactive	☐ Yes	X No
4. Shock Sensitive	☐ Yes	X No	12. Thermally Unstable	☐ Yes	X No
5. Tires	☐ Yes	X No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	☐ Yes	X No
6. Pyrophoric	☐ Yes	X No	14. Medical/Infectious Waste	☐ Yes	X No
7. Compressed Gases	☐ Yes	X No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	X Yes	☐ No
8. Halogenated Organics	☐ Yes	X No			

16. Hazardous Secondary Material? ☐ Yes ☐ No

17. Possibility of incidental liquids from transporation? ☐ Yes X No

18. Is waste/material a solid using the paint filter test? X Yes (solid) ☐ No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical ☐ <= 2 X 2<12.5 ☐ ≥12.5

20. Flash Point 200 °F ☐ < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? ☐ N/A X Yes ☐ No

F. GENERATOR'S CERTIFICATION

☐ Yes X No I certify this waste/material may be disposed of without further treatment.

☐ Yes ☐ N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090099524-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	K050		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☒ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☐ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	2
Solids (excluding Organics/Oil/TPH)	90
Organics /Oil/TPH	8

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☒ Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	763
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☐ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090106031-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S. - F037

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ: 1.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: AS GENERATED

8. Shipment Size: 25 CY Quantity: 1.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: RRDS - FAILS TS F037, <10PPM BZ, >1000PPM TPH, HG 628 PPM

2. Process Generating: SOLIDS FROM DEWATERING OF API, DAF, EDENF, P & B SLUDGE, GRIT CHAMBER SLUDGE, HEAT EXCHANGER SLUDGE, SOLIDS FROM SLOP OIL TANK.

3. Describe Physical Appearance: BROWN TO BLACK FILTERCAKE SOLIDS

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: brown to black | 7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0025489H					
21. RCRA Waste Codes	F037					

22. Source Code: G07 | 23. Form Code: W409 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
REFINERY SLUDGE	%	45	50	100
WATER	%	43	10	47
Arsenic	PPM	19.4	1	35
Barium	PPM	1010	250	1200
Chromium	PPM	374	12	500
Lead	PPM	73	14	18
Mercury	PPM	628	628	628
Nickel	PPM	253	7.5	300
CYANIDE	PPM	0.08	0.2	0.6
ETHYLBENZENE	PPM	0.942	0.1	100
Xylene (mixed isomers)	PPM	4.23	1	100

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 3.50 to 10.50 Typical 4.00

20. Flash Point > 140 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	04/18/2018

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090106031-0

Values are: ☐ TCLP ☒ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
TOLUENE	PPM	0.141	0.1	100
Naphthalene	PPM	10.3	1	15
Phenanthrene	PPM	27.1	9	35
TOTAL HYDROCARBONS	PPM	121000	0	200000

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090106031-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	RRDS - FAILS TS F037, <10PPM BZ, >1000PPM TPH, HG 628 PPM		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

X F037	F038	K048	K049	K050	K051
K052	K169	K170	K171	K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

na

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	43
Solids (excluding Organics/Oil/TPH)	45
Organics /Oil/TPH	12

PROPERTIES (wet weight basis)

PHYSICAL STATE: X Solid X Liquid Single Phased Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	628
SVM (Pb, Cd)	74.22
LVM (As, Be, Cr)	393.6
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
Yes	X No	If Catalyst, does material posses self heating properties?	
Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
Yes	X No	Contains fuel oxygenates? MTBE Ethanol Other	ppm
Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	04/18/2018

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090106031-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: RRDS - FAILS TS F037, <10PPM BZ, >1000PPM TPH, HG 628 PPM

Process generating the waste/material: SOLIDS FROM DEWATERING OF API, DAF, EDENF, P & B SLUDGE, GRIT CHAMBER SLUDGE, HEAT EXCHANGER

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [ ] Yes [X] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 0.246 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: 0.246 to 9.9 ppmw

This waste/material is classified as: [X] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	4/18/2018

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090093937-1

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ: 10.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: As Generator

8. Shipment Size: 25 CY Quantity: 20.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: RRDS - D018, >10PPM BZ, >1000PPM TPH, HG 550-600 PPM

2. Process Generating: Sludge from refinery flare system

3. Describe Physical Appearance: BROWN TO BLACK FILTERCAKE SOLIDS AND SLIDGE

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: brown to black

7. Liquid phases: [ ] Single [ ] Double Layer [X] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0120519H					
21. RCRA Waste Codes	D018					

22. Source Code: G07 | 23. Form Code: W409 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
REFINERY SLUDGE	%	65.5	50	95
TOTAL HYDROCARBONS	%	7.34	0.1	10
WATER	%	26.1	10	50
Benzene	PPM	560	10	600
Ethylbenzene	PPM	538	10	600
XYLENE	PPM	7620	0	1000
Toluene	PPM	1520	0	2000
Chromium	PPM	138	0	140
Mercury	PPM	572	550	600

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 4.00 to 10.00 Typical ____

20. Flash Point > 140 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090093937-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	RRDS - D018, >10PPM BZ, >1000PPM TPH, HG 550-600 PPM		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
WASTE SLUDGE REMOVED FROM FLARE KNOCKOUT DRUM

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	27.1
Solids (excluding Organics/Oil/TPH)	65.5
Organics /Oil/TPH	7.4

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☐ Liquid ☐ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	0
% of ASH	0

Specific Constituents (ppm)	
Halogens*	0
Mercury	572
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	11/20/2015

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090093937-1

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: RRDS - D018, >10PPM BZ, >1000PPM TPH, HG 550-600 PPM

Process generating the waste/material: Sludge from refinery flare system

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 560 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: 10 to 600 ppmw

This waste/material is classified as: [X] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	11/20/2015

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090097246-1

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [X] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 2911	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: FLAMMABLE SOLIDS, ORGANIC, N.O.S.

2. Hazard Class: 4.1 | 3. UN/NA #: UN1325 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [X] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [X] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: VACBOX Quantity: 9.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: OILY MATERIAL LEAD CHROME ARSENIC

2. Process Generating: CLEANOUT OF RAW NATURAL GAS STORAGE VESSELS AND GAS PROCESSING EQUIPMENT.

3. Describe Physical Appearance: WET SOLID WITHE SOME FREE LIQUID

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: BROWN/BLACK | 7. Liquid phases: [ ] Single [ ] Double Layer [X] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0006695H					
21. RCRA Waste Codes	D001	D018	K169	D004	D007	D008

22. Source Code: G39 | 23. Form Code: W219 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [X] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
PETROLEUM CRUDE OIL	%	0	50	75
Hydrogen Sulfide	%	0	0	4
n-Hexane	%	0	0	2
Benzene	PPM	0	0	2.2
Xylene (mixed isomers)	PPM	0	103	22000
Ethylbenzene	PPM	0	1.42	1550
Toluene	PPM	0	3	5000
Lead	PPM	0	0	0.25
Mercury	PPM	0	0	0.0012
Chromium	PPM	0	0	0.0005
Barium	PPM	0	0.28	0.75

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point ____ °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	05/10/2016

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090097246-1

Values are: [X] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Arsenic	PPM	0	0	0.05
Cadmium	PPM	0	0	0.05
Selenium	PPM	0	0	0.05
Silver	PPM	0	0	0.05
C6-C12 HYDROCARBON	PPM	0	100	500
C12-C28 HYDROCARBON	PPM	0	100	800
C28-C36 HYDROCARBON	PPM	0	100	400
WATER	%	0	0	85
IRON	%	0	0	3
ZINC	PPM	0	0	885
DEBRIS (HOSES, FABRIC, PPE)	%	0	0	10
Methyl ethyl ketone	PPM	0	0	0.741
BENZ(A)ANTHRACENE	PPM	0	0	3.4
BENZO(G,H,I)PERYLENE	PPM	0	0	9.8
CHRYSENE	PPM	0	0	3.4
Fluorene	PPM	0	0	3.4
Naphthalene	PPM	0	0	5.6
Phenanthrene	PPM	0	0	5.6
Pyrene	PPM	0	0	8.2

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090097246-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	OILY MATERIAL LEAD CHROME ARSENIC		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☒ K169	☐ K170	☐ K171	☐ K172	☐ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	20
Solids (excluding Organics/Oil/TPH)	30
Organics /Oil/TPH	50

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☐ Liquid ☐ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	17000
% of ASH	50

Specific Constituents (ppm)	
Halogens*	0
Mercury	571
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	05/10/2016

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090097246-1

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: OILY MATERIAL LEAD CHROME ARSENIC

Process generating the waste/material: CLEANOUT OF RAW NATURAL GAS STORAGE VESSELS AND GAS PROCESSING EQUIPMENT.

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [ ] Yes [X] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 480 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [X] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	6/9/2015

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090096509-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [X] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 2911	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: UN1993, Flammable liquids, n.o.s., 3, PG-II

2. Hazard Class: 3 | 3. UN/NA #: UN1993 | 4. Packaging Group: II | 5. RQ: 100.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [X] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [X] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: VACBOX Quantity: 9.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: OILY MATERIAL

2. Process Generating: CLEANOUT OF RAW NATURAL GAS STORAGE VESSELS AND GAS PROCESSING EQUIPMENT.

3. Describe Physical Appearance: WET SOLID WITHE SOME FREE LIQUID

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: BROWN/BLACK

7. Liquid phases: [ ] Single [ ] Double Layer [X] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0006695H					
21. RCRA Waste Codes	D001	D018	K169			

22. Source Code: G39 | 23. Form Code: W219 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [X] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
PETROLEUM CRUDE OIL	%	0	50	75
Hydrogen Sulfide	%	0	0	4
n-Hexane	%	0	0	2
Benzene	PPM	0	0	2.2
Xylene (mixed isomers)	PPM	0	103	22000
Ethylbenzene	PPM	0	1.42	1550
Toluene	PPM	0	3	5000
Lead	PPM	0	0	0.25
Mercury	PPM	0	0	0.0012
Chromium	PPM	0	0	0.0005
Barium	PPM	0	0.28	0.75

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point ____ °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	05/10/2016

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090096509-0

Values are: [X] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Arsenic	PPM	0	0	0.05
Cadmium	PPM	0	0	0.05
Selenium	PPM	0	0	0.05
Silver	PPM	0	0	0.05
C6-C12 HYDROCARBON	PPM	0	100	500
C12-C28 HYDROCARBON	PPM	0	100	800
C28-C36 HYDROCARBON	PPM	0	100	400
WATER	%	0	0	85
IRON	%	0	0	3
ZINC	PPM	0	0	885
DEBRIS (HOSES, FABRIC, PPE)	%	0	0	10
Methyl ethyl ketone	PPM	0	0	0.741
BENZ(A)ANTHRACENE	PPM	0	0	3.4
BENZO(G,H,I)PERYLENE	PPM	0	0	9.8
CHRYSENE	PPM	0	0	3.4
Fluorene	PPM	0	0	3.4
Naphthalene	PPM	0	0	5.6
Phenanthrene	PPM	0	0	5.6
Pyrene	PPM	0	0	8.2

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090096509-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	TXR000081740
Waste/Material Stream Name:	OILY MATERIAL		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☒ K169	☐ K170	☐ K171	☐ K172	☐ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	20
Solids (excluding Organics/Oil/TPH)	30
Organics /Oil/TPH	50

PROPERTIES (wet weight basis)

PHYSICAL STATE

☐ Solid ☐ Liquid ☐ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	17000
% of ASH	50

Specific Constituents (ppm)	
Halogens*	0
Mercury	571
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes, ____	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes, ____	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other ____	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	05/10/2016

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090096509-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: OILY MATERIAL

Process generating the waste/material: CLEANOUT OF RAW NATURAL GAS STORAGE VESSELS AND GAS PROCESSING EQUIPMENT.

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [ ] Yes [X] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 480 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [X] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	6/9/2015

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090087036-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 486210	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: 25yd Quantity: 10.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: DRIP LINE SOLIDS

2. Process Generating: Cleaning out a drip line connected to a natural gas pipeline

3. Describe Physical Appearance: BLACK SLUDGE, SOLIDS, LIQUIDS; STRONG PETROLEUM ODOR

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: Black

7. Liquid phases: [ ] Single [ ] Double Layer [X] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [ ] Yes [X] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	RRCT609H					
21. RCRA Waste Codes	D018					

22. Source Code: G19 | 23. Form Code: W609 | 24. Management Code: H050 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
RUST / SCALE / DIRT / SEDIMENT	%	90	85	95
WATER	%	10	5	10
Barium	MG/KG	40.3	1	40.3
Chromium	MG/KG	61.5	1	61.5
Lead	MG/KG	143	1	143
Mercury	MG/KG	496	1	496
Naphthalene	MG/KG	160.5	1	160.5
Benzene	MG/KG	265	1	265
Toluene	MG/KG	695	1	695
XYLENE	MG/KG	648	1	648
TOTAL HYDROCARBONS	MG/KG	19700	30	19700

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes [X] No	9. Reactive Sulfides 568.00 ppm	[X] Yes [ ] No
2. Explosive	[ ] Yes [X] No	10. Reactive Cyanides _____ ppm	[ ] Yes [X] No
3. Organic Peroxide	[ ] Yes [X] No	11. Water/Air Reactive	[ ] Yes [X] No
4. Shock Sensitive	[ ] Yes [X] No	12. Thermally Unstable	[ ] Yes [X] No
5. Tires	[ ] Yes [X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes [X] No
6. Pyrophoric	[ ] Yes [X] No	14. Medical/Infectious Waste	[ ] Yes [X] No
7. Compressed Gases	[ ] Yes [X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes [X] No
8. Halogenated Organics	[ ] Yes [X] No		

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical _____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point 178 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090087036-0

WASTE/MATERIAL PROFILE FORM
THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	DRIP LINE SOLIDS		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
The drip line collected unwanted solids and debris while transporting natural gas through pipeline

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	10
Solids (excluding Organics/Oil/TPH)	40
Organics /Oil/TPH	50

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☐ Liquid ☐ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	496
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	468

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?		
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?		
☐ Yes	☒ No	Contains fuel oxygenates?	☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			06/25/2014

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

[ ] US Ecology Nevada (Beatty)	usencs@usecology.com	
[ ] US Ecology Idaho (Grandview)	useics@usecology.com	**PROFILE #** 090100216-1
[✓] US Ecology Texas (Robstown)	usetcs@usecology.com	
[ ] US Ecology Michigan (Detroit)	usemcs@usecology.com	

A. CUSTOMER INFORMATION

1. Generator [redacted]	[X] Billling information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9	3. UN/NA #: NA3077	4. Packaging Group: III	5. RQ: 10.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [X] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: 25 Quantity: 8.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: ORBITAL SHAKER SLUDGE & REJECT FEED

2. Process Generating: SLUDGE GENERATED FROM 3/8" MESH ORBITAL SHAKER USED TO REMOVE DEBRIS WHILE, NO BENZENE

3. Describe Physical Appearance: DARK-CHOCOLATE COVERED PEANUTS / BLACK SLUDGE

4. Odor: [ ] None [X] Slight [ ] Strong
5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid
6. Describe Color: brown/black
7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer
8. Knowledge is from: [ ] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege
9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial
10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No
11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)
12. Alt. Standards for soil? [ ] Yes [X] No
13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):
14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw
15. Has it been treated after point of generation? [ ] Yes [X] No
16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No
17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No
18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No
19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS603H					
21. RCRA Waste Codes	K169	F037	F038	K049	K050	K051
	K170	K171				

22. Source Code: G07 23. Form Code: W603 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
OILY SLUDGE (SILT, SOLIDS, ROCK <2")	%	100	99	100
LAN TEC PACKING (SOFTBALL SIZE, PLASTIC)	%		0	30
Mercury	PPM		12	434
Benzene	PPM		0	0.99
WATER	%	27	0	0
Acenaphthene	MG/KG	18.3	0	0
Anthracene	%	13.9	0	0
BENZO(G,H,I)PERYLENE	MG/KG	5.5	0	0
Benzo(k)fluoranthene	MG/KG	1.3	0	0
CHRYSENE	MG/KG	23.1	0	0
Fluorene	MG/KG	26.1	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.00 to 12.50 Typical 7.33

20. Flash Point 65 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090100216-1

Values are: ☐ TCLP ☒ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Bis(2-Ethylhexyl) Phthalate	MG/KG	21.4	0	0
2-METHYLNAPHTHALENE	MG/KG	20	0	0
Toluene	MG/KG	3.15	0	0

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090100216-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	ORBITAL SHAKER SLUDGE & REJECT FEED		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☒ F037	☒ F038	☐ K048	☒ K049	☒ K050	☒ K051
☐ K052	☒ K169	☒ K170	☒ K171	☐ K172	☐ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	27
Solids (excluding Organics/Oil/TPH)	70
Organics /Oil/TPH	3

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☒ Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	434
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090100216-1

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: ORBITAL SHAKER SLUDGE & REJECT FEED

Process generating the waste/material: SLUDGE GENERATED FROM 3/8" MESH ORBITAL SHAKER USED TO REMOVE DEBRIS WHILE, NO BENZENE

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [X] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 0.99 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	8/19/2013

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090065833-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ: 10.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [X] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: 25 Quantity: 8.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: ORBITAL SHAKER SLUDGE & REJECT FEED

2. Process Generating: SLUDGE GENERATED FROM 3/8" MESH ORBITAL SHAKER USED TO REMOVE DEBRIS WHILE, NO BENZENE

3. Describe Physical Appearance: DARK-CHOCOLATE COVERED PEANUTS / BLACK SLUDGE

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: brown/black | 7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS603H					
21. RCRA Waste Codes	F037	F038	K049	K050	K051	K169
	K170	K171				

22. Source Code: G07 | 23. Form Code: W603 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
OILY SLUDGE (SILT, SOLIDS, ROCK <2")	%	100	99	100
LAN TEC PACKING (SOFTBALL SIZE, PLASTIC)	%		0	30
Mercury	PPM		12	434
Benzene	PPM		0	0.99
WATER	%	27	0	0
Acenaphthene	MG/KG	18.3	0	0
Anthracene	%	13.9	0	0
BENZO(G,H,I)PERYLENE	MG/KG	5.5	0	0
Benzo(k)fluoranthene	MG/KG	1.3	0	0
CHRYSENE	MG/KG	23.1	0	0
Fluorene	MG/KG	26.1	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.00 to 12.50 Typical 7.33

20. Flash Point 65 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090065833-0

Values are: ☐ TCLP ☒ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Bis(2-Ethylhexyl) Phthalate	MG/KG	21.4	0	0
2-METHYLNAPHTHALENE	MG/KG	20	0	0
Toluene	MG/KG	3.15	0	0

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090065833-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	ORBITAL SHAKER SLUDGE & REJECT FEED		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☒ F037	☒ F038	☐ K048	☒ K049	☒ K050	☒ K051
☐ K052	☒ K169	☒ K170	☒ K171	☐ K172	☐ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	27
Solids (excluding Organics/Oil/TPH)	70
Organics /Oil/TPH	3

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
☒ Solid	☐ Liquid	☐ Single Phased	☐ Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	434
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
☐ Yes	☐ No	If Catalyst, does material posses self heating properties?		
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?		
☐ Yes	☒ No	Contains fuel oxygenates?	☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090065833-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: ORBITAL SHAKER SLUDGE & REJECT FEED

Process generating the waste/material: SLUDGE GENERATED FROM 3/8" MESH ORBITAL SHAKER USED TO REMOVE DEBRIS WHILE, NO BENZENE

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [X] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 0.99 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	8/19/2013

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090103576-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: UN3190, WASTE SELF HEATING SOLIDS, INORGANIC, NOS, 4.2, PGII, RQ(K171) - (HYDROTREATING CATALYSTS)

2. Hazard Class: 4.2 | 3. UN/NA #: UN3190 | 4. Packaging Group: II | 5. RQ:

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [X] Other, Describe: FLOW BINS

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: 5-6 YEARS

8. Shipment Size: 478, 458 Quantity: 127.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: CFU SPENT CATALYSTS - REACTORS 801A & 801B

2. Process Generating: CATCRACKER FEED (HYDROTREATING UNIT)

3. Describe Physical Appearance: GREY DUST AND SUPPORT MEDIA

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: GREY

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [X] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS319H					
21. RCRA Waste Codes	K171					

22. Source Code: G08 | 23. Form Code: W319 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
ALUMINUM OXIDE	%	68	0	0
SILICON OXIDES	%	14	0	0
NICKEL OXIDE	%	4	0	0
Molybdenum trioxide	%	14	0	0
ALUMINUM PHOSPHATE	%	1	0	0
Benzene	MG/KG	140	0	0
SEE ATTACHED SUMMARY FOR RCRA METALS, VOCS & SVOC			0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides 10.00 ppm	[X] Yes	[ ] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point > 140 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090103576-0

WASTE/MATERIAL PROFILE FORM
THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	CFU SPENT CATALYSTS - REACTORS 801A & 801B		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	[X] Yes	[ ] No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	[ ] Yes	[X] No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	[ ] Yes	[X] No

The Petroleum Refining listed waste code associated with waste is:

[ ] F037	[ ] F038	[ ] K048	[ ] K049	[ ] K050	[ ] K051
[ ] K052	[ ] K169	[ ] K170	[X] K171	[ ] K172	[ ] No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	97
Organics /Oil/TPH	3

PROPERTIES (wet weight basis)

PHYSICAL STATE: [X] Solid [ ] Liquid [ ] Single Phased [ ] Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	0.01
SVM (Pb, Cd)	119
LVM (As, Be, Cr)	10490
Organic Chlorine from VOCs	0
Sulfides (total)	10

Reclamation Facility Coordination Questions

[ ] Yes	[X] No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
[X] Yes	[ ] No	If Catalyst, does material posses self heating properties?	
[ ] Yes	[X] No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
[ ] Yes	[X] No	Has the material been processed by a centrifuge prior to shipment?	
[ ] Yes	[X] No	Contains fuel oxygenates? [ ] MTBE [ ] Ethanol [ ] Other	ppm
[ ] Yes	[X] No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	10/26/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090103576-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: CFU SPENT CATALYSTS - REACTORS 801A & 801B

Process generating the waste/material: CATCRACKER FEED (HYDROTREATING UNIT)

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 140 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [X] Yes [ ] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	10/26/2017

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090106661-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 2911 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ: 1.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: PROJECT WORK

8. Shipment Size: 20 YD BOX Quantity: 0.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: SWMU 46 F037 WASTE

2. Process Generating: REMEDIATION WASTE FROM RCRA CA - ABANDONED OIL/WATER SEPARATOR

3. Describe Physical Appearance: DARK SLUDGE

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: GRAY/BLACK

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS504H					
21. RCRA Waste Codes	F037					

22. Source Code: G23 | 23. Form Code: W504 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
REFINERY PRIMARY SLUDGE	%		90	100
SMALL DEBRIS (ROCK, CONCRETE, METAL:	%		0	5
ALL < 6"			0	0
Benzene	PPM		0	100
Lead	PPM		50	10000
GRAVEL/SOIL	%		1	20
WATER	%	30	15	50

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point > 140 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090106661-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	SWMU 46 F037 WASTE		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

X F037	F038	K048	K049	K050	K051
K052	K169	K170	K171	K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	30
Solids (excluding Organics/Oil/TPH)	60
Organics /Oil/TPH	10

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
X Solid	Liquid	Single Phased	Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	38
Mercury	0.37
SVM (Pb, Cd)	7403.4
LVM (As, Be, Cr)	44.64
Organic Chlorine from VOCs	0
Sulfides (total)	99

Reclamation Facility Coordination Questions

Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
Yes	X No	If Catalyst, does material posses self heating properties?		
Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
Yes	X No	Has the material been processed by a centrifuge prior to shipment?		
Yes	X No	Contains fuel oxygenates?	MTBE / Ethanol / Other	ppm
Yes	X No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	05/30/2018

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090106661-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: SWMU 46 F037 WASTE

Process generating the waste/material: REMEDIATION WASTE FROM RCRA CA - ABANDONED OIL/WATER SEPARATOR

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 15 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	5/30/2018

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090101921-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 325110 325211	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.(CHROMIUM)

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: II | 5. RQ: 5000.00

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [X] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: SEMIANNUALLY

8. Shipment Size: 55 GALLON Quantity: 120.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: CHROMIUM CATALYST

2. Process Generating: SPENT, UNUSED CHROMIUM BASED CATALYST FROM THE PRODUCTION OF POLYETHYLENE RESIN

3. Describe Physical Appearance: GREEN POWDERY SOLID

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: LIGHT GREEN

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS316H					
21. RCRA Waste Codes	D007					

22. Source Code: G08 | 23. Form Code: W316 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
CHROMIUM ACETATE	%		0.5	2
Chromium	MG/L		50	150
CHROMIUM	MG/KG		200	11500
SILICA, AMORPHOUS	%		93	96
Methanol	%		0	1
1-Propanol	%		0	2
BORON	%		0	0.01
TITANIUM	%		0	0.01
POLYETHYLENE VIALS (6"X1")	%		0	5
FILTER/FILTER MEDIA (6"X1")	%		0	5
Acetone	MG/KG	278	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point > 215 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [ ] Yes [X] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090101921-0

Values are: ☐ TCLP ☒ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
TOTAL ORGANIC CONTENT	%		1	4

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090101921-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	CHROMIUM CATALYST		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	X No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	X Yes	☐ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	X No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
METAL BEARING CATALYST USED IN THE PRODUCTION OF HIGH DENSITY POLYETHYLENE RESINS. THIS CATALYST REPRESENTS UNUSABL

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	98
Organics /Oil/TPH	2

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	4999
X Solid	☐ Liquid	☐ Single Phased	☐ Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	0.02
SVM (Pb, Cd)	0.2
LVM (As, Be, Cr)	7000
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

X Yes	☐ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	10 % vol
☐ Yes	X No	If Catalyst, does material posses self heating properties?	
☐ Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	X No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	06/30/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090102582-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 562211	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, LIQUID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3082 | 4. Packaging Group: III | 5. RQ: 1.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: 25 CY VAC BOX Quantity: 10.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: HAZARDOUS TANK BOTTOMS (NON-REACTIVE)

2. Process Generating: CLEANING OF RCRA HAZARDOUS WASTE STORAGE TANK T-8A

3. Describe Physical Appearance: TANK BOTTOM SLUDGE WITH SOLIDS (DIRT AND RUST); LIQUID PHASE CONTAINS ORGANIC LAYER

4. Odor: [ ] None [ ] Slight [X] Strong | 5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: DARK BROWN TO B | 7. Liquid phases: [ ] Single [X] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0056519H					
21. RCRA Waste Codes	D018					

22. Source Code: G25 | 23. Form Code: W519 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
WATER	%	42	20	78
DIRT/RUST	%	50	20	78
NON-TRI ORGANICS	%	8	2	10
Benzene	MG/KG	720	0	0
Ethylbenzene	MG/KG	430	0	0
Toluene	MG/KG	1100	0	0
XYLENE	MG/KG	2600	0	0
ISOPROPYLBENZENE	MG/KG	45	0	0
M-XYLENE & P-XYLENE	MG/KG	1800	0	0
o-Xylene	MG/KG	820	0	0
Cyclohexane	MG/KG	28	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____

20. Flash Point ____ °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [ ] Yes [X] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [ ] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090102582-0

Values are: ☐ TCLP ☒ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Acenaphthene	MG/KG	68	0	0
Anthracene	MG/KG	13	0	0
BENZO(G,H,I)PERYLENE	MG/KG	49	0	0
Bis(2-Ethylhexyl) Phthalate	MG/KG	48	0	0
CHRYSENE	MG/KG	30	0	0
Dibenzofuran	MG/KG	20	0	0
Fluorene	MG/KG	65	0	0
Naphthalene	MG/KG	1300	0	0
phenanthrene, 2,5-dimethyl- (generic PAHs)	MG/KG	110	0	0
Pyrene	MG/KG	25	0	0
1,1'-BIPHENYL	MG/KG	440	0	0
2-METHYLNAPHTHALENE	MG/KG	2500	0	0
Silver	MG/KG	11	0	0
Beryllium	MG/KG	10.5	0	0
Barium	MG/KG	440	0	0
Cadmium	MG/KG	170	0	0
Chromium	MG/KG	2800	0	0
Lead	MG/KG	330	0	0
Selenium	MG/KG	14	0	0
Mercury	MG/KG	13	0	0
IDENO(1,2,3-C,D) PYRENE	MG/KG	10	0	0
Arsenic	MG/KG	37	0	0
2-METHYLPHENOL	MG/KG	57	0	0
Phenol	MG/KG	240	0	0

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090102582-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	HAZARDOUS TANK BOTTOMS (NON-REACTIVE)		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	[ ] Yes	[X] No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	[ ] Yes	[X] No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	[X] Yes	[ ] No

The Petroleum Refining listed waste code associated with waste is:

[ ] F037	[ ] F038	[ ] K048	[ ] K049	[ ] K050	[ ] K051
[ ] K052	[ ] K169	[ ] K170	[ ] K171	[ ] K172	[X] No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
CLEANING OF RCRA HAZARDOUS WASTE STORAGE TANK T-8A (TANK BOTTOMS)

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	42
Solids (excluding Organics/Oil/TPH)	50
Organics /Oil/TPH	8

PROPERTIES (wet weight basis)

PHYSICAL STATE					Heating Value Btu/Lb	
[ ] Solid	[ ] Liquid	[ ] Single Phased	[X] Multi-Phased		% of ASH	

Specific Constituents (ppm)	
Halogens*	65
Mercury	13
SVM (Pb, Cd)	500
LVM (As, Be, Cr)	2847.5
Organic Chlorine from VOCs	0
Sulfides (total)	146

Reclamation Facility Coordination Questions

[ ] Yes	[X] No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
[ ] Yes	[X] No	If Catalyst, does material posses self heating properties?		
[ ] Yes	[X] No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
[ ] Yes	[X] No	Has the material been processed by a centrifuge prior to shipment?		
[ ] Yes	[X] No	Contains fuel oxygenates?	[ ] MTBE [ ] Ethanol [ ] Other	ppm
[ ] Yes	[X] No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	09/01/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090104169-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 562211	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ: 10.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: 25 CY Quantity: 5.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: FILTER PRESS CAKE; HAZARDOUS (NON-REACTIVE); TANK T-8A

2. Process Generating: FILTER CAKE IS GENERATED FROM THE DEWATERING OF TANK T-8A BOTTOMS VIA A FILTER PRESS. TANK T-8A BOTTOMS WERE GENERATED FROM THE CLEANING OF RCRA HAZARDOUS WASTE STORAGE TANK.

3. Describe Physical Appearance: BROWN TO BLACK COLOR WITH STREAKS OF WHITE

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: BROWN TO BLACK

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0012319H					
21. RCRA Waste Codes	D018					

22. Source Code: G14 | 23. Form Code: W319 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [X] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
ENTRAINED WATER	%	20	15	40
DIRT/RUST/DIATOMACEIOUS EARTH	%	72	58	83
NON-TRI ORGANICS	%	8	2	10
Benzene	UG/L	630	0	0
Ethylbenzene	MG/KG	110	0	0
Toluene	MG/KG	150	0	0
XYLENE	MG/KG	790	0	0
M-XYLENE & P-XYLENE	MG/KG	560	0	0
o-Xylene	MG/KG	230	0	0
Acenaphthene	MG/KG	5.3	0	0
BENZO(G,H,I)PERYLENE	MG/KG	2.3	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 7.00 to 9.00 Typical

20. Flash Point > 150 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [ ] Yes [X] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090104169-0

Values are: [X] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Bis(2-Ethylhexyl) Phthalate	MG/KG	11	0	0
CHRYSENE	MG/KG	2.4	0	0
Cyclohexane	MG/KG	13	0	0
Fluorene	MG/KG	6.2	0	0
Naphthalene	MG/KG	86	0	0
Phenanthrene	MG/KG	12	0	0
Pyrene	MG/KG	3.2	0	0
Phenol	MG/KG	8.4	0	0
Arsenic	MG/KG	0.0164	0	0
Barium	MG/L	0.321	0	0
Beryllium	MG/KG	10.5	0	0
Cadmium	MG/L	0.00616	0	0
Chromium	MG/L	0.104	0	0
Lead	MG/L	0.01	0	0
Mercury	MG/L	0.002	0	0
Selenium	MG/L	0.0363	0	0
Silver	MG/L	0.005	0	0

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090104169-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	FILTER PRESS CAKE; HAZARDOUS (NON-REACTIVE); TANK T-8A		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☒ Yes	☐ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
FILTER CAKE IS GENERATED FROMT HE DEWATERING OF TANK T-8A BOTTOMS VIA A FILTER PRESS. TANK T-8A BOTTOMS WERE GENERAT

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	20
Solids (excluding Organics/Oil/TPH)	72
Organics /Oil/TPH	8

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
☒ Solid	☐ Liquid	☐ Single Phased	☐ Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	65
Mercury	13
SVM (Pb, Cd)	500
LVM (As, Be, Cr)	2847.5
Organic Chlorine from VOCs	0
Sulfides (total)	146

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	12/04/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090103346-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status: [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S. - SPENT HYDROREFINING CATALYST

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [X] Other, Describe: FLO BINS

7. Frequency: [X] Year [ ] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: Quantity: 20.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST

2. Process Generating: SPENT HYDROPROCESSING CATALYST FROM OIL REFINING TURNAROUND/CATALYST CHANGE, INCLUDING WASTE SWEEPINGS & FINES (WILL INCLUDE INERT SUPPORT MEDIA)

3. Describe Physical Appearance: DARK GREY TO BLACK EXTRUSIONS & FINES, NO HYDROCARBONS; NO FREE LIQUIDS; SLIGHT ODOR (SULFUR, HYDROCARBONS)

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: GREY/BLACK | 7. Liquid phases: [X] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [X] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083): [X] <500 ppmw [ ] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS319H					
21. RCRA Waste Codes	K171	K172				

22. Source Code: G07 | 23. Form Code: W319 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
MOLYBDENUM	%	8	7	10
ALUMINA / ALUMINUM OXIDE	%	70	60	80
Cobalt	%	1	0	3
Nickel	%	3	2	5
phosphorous	%	0.5	0	1
SILICA/SUPPORT MEDIA	%	9	5	20
SULFUR	%	6	4	10
MOISTURE/H2O	%	1.5	0	3
DIBORON TRIOXIDE	%	1	1	3
Benzene	PPM	90	50	300

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides 99.00 ppm	[X] Yes	[ ] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.10 to 6.90 Typical

20. Flash Point 300 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090103346-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	X K171	X K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	92
Organics /Oil/TPH	8

PROPERTIES (wet weight basis)

PHYSICAL STATE: X Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	1999
% of ASH	5

Specific Constituents (ppm)	
Halogens*	0
Mercury	0
SVM (Pb, Cd)	19
LVM (As, Be, Cr)	2510
Organic Chlorine from VOCs	0
Sulfides (total)	99

Reclamation Facility Coordination Questions

☐ Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
X Yes	☐ No	If Catalyst, does material posses self heating properties?	
☐ Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	X No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	10/05/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090103346-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST

Process generating the waste/material: SPENT HYDROPROCESSING CATALYST FROM OIL REFINING TURNAROUND/CATALYST CHANGE, INCLUDING W

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [X] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 75 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [X] Yes [ ] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: 75 to 90 ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [X] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	10/5/2017

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090103466-1

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S. - SPENT HYDROREFINING CATALYST

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [X] Drums [ ] Boxes [X] Other, Describe:

7. Frequency: [X] Year [ ] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: 55 Quantity: 100.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST - DRUMS

2. Process Generating: SPENT HYDROPROCESSING CATALYST FROM OIL REFINING TURNAROUND/CATALYST CHANGE, INCLUDING WASTE SWEEPINGS & FINES (WILL INCLUDE INERT SUPPORT MEDIA)

3. Describe Physical Appearance: DARK GREY TO BLACK EXTRUSIONS & FINES, NO HYDROCARBONS; NO FREE LIQUIDS; SLIGHT ODOR (SULFUR, HYDROCARBONS)

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: GREY/BLACK | 7. Liquid phases: [X] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [X] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS319H					
21. RCRA Waste Codes	K171	K172				

22. Source Code: G07 | 23. Form Code: W319 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
MOLYBDENUM	%	8	7	10
ALUMINA / ALUMINUM OXIDE	%	70	60	80
Cobalt	%	1	0	3
Nickel	%	3	2	5
phosphorous	%	0.5	0	1
SILICA/SUPPORT MEDIA	%	9	5	20
SULFUR	%	6	4	10
MOISTURE/H2O	%	1.5	0	3
DIBORON TRIOXIDE	%	1	1	3
Benzene	PPM	90	50	300

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides 99.00 ppm	[X] Yes	[ ] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			
16. Hazardous Secondary Material?				[ ] Yes	[X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.10 to 6.90 Typical

20. Flash Point 300 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090103466-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST - DRUMS		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	X K171	X K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	92
Organics /Oil/TPH	8

PROPERTIES (wet weight basis)

PHYSICAL STATE: X Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	1999
% of ASH	5

Specific Constituents (ppm)	
Halogens*	0
Mercury	0
SVM (Pb, Cd)	19
LVM (As, Be, Cr)	2510
Organic Chlorine from VOCs	0
Sulfides (total)	99

Reclamation Facility Coordination Questions

☐ Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
X Yes	☐ No	If Catalyst, does material posses self heating properties?	
☐ Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	X No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	10/05/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090103466-1

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST - DRUMS

Process generating the waste/material: SPENT HYDROPROCESSING CATALYST FROM OIL REFINING TURNAROUND/CATALYST CHANGE, INCLUDING W

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [X] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 75 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [X] Yes [ ] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: 75 to 90 ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [X] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	10/5/2017

Revised 1/2013

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090101053-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[X] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110 2911	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?:

8. Shipment Size: Quantity: 55.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: CHD1 SPENT CATALYST

2. Process Generating: REMOVAL OF SPENT CATALYST FROM SYSTEM

3. Describe Physical Appearance: SPHERICAL SHAPED

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: GREY BLACK

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [ ] Yes [X] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0004393H	0038393H				
21. RCRA Waste Codes	K171					

22. Source Code: G09 | 23. Form Code: W304 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
SPENT CATALYST	%	100	0	0
Barium	MG/KG	326	0	0
Cadmium	MG/KG	65	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point 200 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090101053-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	CHD1 SPENT CATALYST		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	X K171	K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	95
Organics /Oil/TPH	5

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
X Solid	Liquid	Single Phased	Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	0
SVM (Pb, Cd)	65
LVM (As, Be, Cr)	1898
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

Yes X No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
Yes X No	If Catalyst, does material posses self heating properties?		
Yes X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
Yes X No	Has the material been processed by a centrifuge prior to shipment?		
Yes X No	Contains fuel oxygenates?	MTBE Ethanol Other	ppm
Yes X No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	05/04/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090105022-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ: 10.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [X] Year [ ] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: Quantity: 15.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: DECOKE RESIDUE

2. Process Generating: DECOKE OF CRUDE FURNICE UNIT

3. Describe Physical Appearance: SOLID

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: DARK

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS409H					
21. RCRA Waste Codes	D018					

22. Source Code: G13 | 23. Form Code: W409 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Benzene	MG/KG	120	0	0
Cyclohexane	MG/KG	49	0	0
Ethylbenzene	MG/KG	83	0	0
Toluene	MG/KG	460	0	0
XYLENES	MG/KG	570	0	0
PETROLEUM COKE	%	100	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point > 212 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090105022-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	DECOKE RESIDUE		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	X Yes	No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	K171	K172	X No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

THE WASTE COMES FROM CLEANING A COKER FURNACE UNIT

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	13
Solids (excluding Organics/Oil/TPH)	86.88
Organics /Oil/TPH	0.12

PROPERTIES (wet weight basis)

PHYSICAL STATE: X Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	10000
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	0.04
SVM (Pb, Cd)	643.1
LVM (As, Be, Cr)	1604.4
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

- ☐ Yes X No Contains Non-Friable Debris Material > 2-inch size? If yes, ____ % vol
- ☐ Yes X No If Catalyst, does material posses self heating properties?
- ☐ Yes X No Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes, ____ % vol
- ☐ Yes X No Has the material been processed by a centrifuge prior to shipment?
- ☐ Yes X No Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other ____ ppm
- ☐ Yes X No Does the waste contain any surfactants?

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
			02/07/2018

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090105022-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: DECOKE RESIDUE

Process generating the waste/material: DECOKE OF CRUDE FURNICE UNIT

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [X] ≥1 but <10 Megagram [ ] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 120 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
			2/5/2018

Revised 1/2013

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090102214-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 2911	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: WASTE SELF-HEATING SOLID, INORGANIC, N.O.S. (HYDROTREATING CATALYST), RQ K171

2. Hazard Class: 4.2 | 3. UN/NA #: UN3190 | 4. Packaging Group: II | 5. RQ: 1.00

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [X] Other, Describe: FLO BINS

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?:

8. Shipment Size: Quantity: 83.13

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: DHT D-601 SPENT HYDROTREATING CATALYST

2. Process Generating: 601 - DIESEL HYDROTREATER - ARSENIC TRAP

3. Describe Physical Appearance: GREY GRANULAR AND OTHER SHAPES, SLIGHTLY OILY ODOR

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: | 7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [X] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS409H					
21. RCRA Waste Codes	K171					

22. Source Code: G08 | 23. Form Code: W409 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
ALUMINUM OXIDE	%	75.83	0	0
SILICONE OXIDE	%	10	0	0
NICKEL OXIDE	%	3	0	0
Molybdenum trioxide	%	5	0	0
DIBORON TRIOXIDE	%	0.17	0	0
SPINEL (MG(AIO2)2)	%	5	0	0
COBALT OXIDE	%	1	0	0
Benzene	MG/KG		13	55
Ethylbenzene	MG/KG		15	59
Toluene	MG/KG		150	400
ZYLENE	MG/KG		64	280

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides 31.00 ppm	[X] Yes	[ ] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [X] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point > 140 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [X] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090102214-0

Values are: [ ] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Phenanthrene	MG/KG		0.013	0.16
Pyrene	MG/KG		0.42	1.5
Arsenic	MG/KG		33	1300
Barium	MG/KG		1.1	3.7
Cadmium	MG/KG		0.35	4.5
Chromium	MG/KG		9.2	18
Lead	MG/KG		22	35
Nickel	MG/KG		15000	45000
Selenium	MG/KG		22	29
Silver	MG/KG		1.4	4.8
VANADIUM	MG/KG		120	120
Mercury	MG/KG		0.0049	0.0055

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090102214-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	DHT D-601 SPENT HYDROTREATING CATALYST		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	X K171	K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0.1
Solids (excluding Organics/Oil/TPH)	99.8
Organics /Oil/TPH	0.1

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
X Solid	Liquid	Single Phased	Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	0.01
SVM (Pb, Cd)	35
LVM (As, Be, Cr)	1300
Organic Chlorine from VOCs	0
Sulfides (total)	0

Reclamation Facility Coordination Questions

Yes X No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
X Yes No	If Catalyst, does material posses self heating properties?		
Yes X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
Yes X No	Has the material been processed by a centrifuge prior to shipment?		
Yes X No	Contains fuel oxygenates?	MTBE Ethanol Other	ppm
Yes X No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	08/03/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090102214-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]. | EPA Generator #: [redacted]

Waste/Material Common Name: DHT D-601 SPENT HYDROTREATING CATALYST

Process generating the waste/material: 601 - DIESEL HYDROTREATER - ARSENIC TRAP

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 35 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [X] Yes [ ] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [X] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	8/3/2017

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090099681-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[X] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact:	15. Billing Contact: [redacted]
6. Phone: ( ) - 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 486210	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, LIQUID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3082 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [ ] Bulk [ ] Totes [ ] Pallet [ ] Bags [X] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [X] 1 Time [ ] Other Describe?:

8. Shipment Size: 55 gallon Quantity: 1.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: SCRUBBER FILTER WASTE/SLUDGE WITH PCE

2. Process Generating: SLUDGE GENERATED FROM CLEANING THE SCRUBBER UNIT AT A NATURAL GAS COMPRESSOR STATION. MATERIAL CONSISTS OF GREASE, MUD, DIRT, WATER, AND HYDROCARBONS. CONTRACTOR USED A CLEANER CONTAINING PCE, THUS MAKING IT RCRA HAZARDOUS.

3. Describe Physical Appearance: BLACK SLUDGE, MILD HYDROCARBON ODOR

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: BLACK

7. Liquid phases: [X] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS603H					
21. RCRA Waste Codes	F001					

22. Source Code: G15 23. Form Code: W603 24. Management Code: H050 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
SCRUBBER SLUDGE	%	85	80	90
WATER	%	15	10	20
Tetrachloroethylene	MG/KG	20000	0	0
LEAD-210	pCi/g	143	0	0
POLONIUM-210	pCi/g	102	0	0
Benzene	MG/KG	26	0	0
Carbon disulfide	MG/KG	9.1	0	0
Naphthalene	MG/KG	44	0	0
Phenanthrene	MG/KG	27	0	0
Pyrene	MG/KG	10	0	0
Toluene	MG/KG	180	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[X] Yes	[ ] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range _____ to _____ Typical _____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point 164 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090099681-0

Values are: ☐ TCLP ☒ TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
XYLENE	MG/KG		0	450

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090099681-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	SCRUBBER FILTER WASTE/SLUDGE WITH PCE		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	X Yes	No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	K171	K172	X No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	20
Solids (excluding Organics/Oil/TPH)	78
Organics /Oil/TPH	2

PROPERTIES (wet weight basis)

PHYSICAL STATE

X Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	0
Mercury	220
SVM (Pb, Cd)	470
LVM (As, Be, Cr)	111
Organic Chlorine from VOCs	20000
Sulfides (total)	470

Reclamation Facility Coordination Questions

☐ Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	X No	If Catalyst, does material posses self heating properties?	
☐ Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	X No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
			12/27/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090099681-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: SCRUBBER FILTER WASTE/SLUDGE WITH PCE

Process generating the waste/material: SLUDGE GENERATED FROM CLEANING THE SCRUBBER UNIT AT A NATURAL GAS COMPRESSOR STATION. MA

Type of Facility: ☐ Refinery (SIC 2911) ☒ Coke by-products recovery (SIC 3312) ☐ Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): ☐ < 1 Megagram (2,204 lbs) ☐ ≥1 but <10 Megagram ☐ ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? ☒ Yes ☐ No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 26 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? ☒ ≤10% ☐ >10%

Is this Process Unit Turnaround waste/material? ☐ Yes ☒ No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to _____ ppmw

This waste/material is classified as: ☐ Process wastewater stream ☐ Product tank drawdown ☐ Landfill leachate ☐ None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
			1/24/2017

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090070123-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe: Flow Bins

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: Project

8. Shipment Size: Quantity: 98.00

9. Waste Import: [ ] Yes [ ] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: HDU2 CATALYST

2. Process Generating: CATALYST CHANGEOUT FROM REFINERY HYDROTREATING UNIT

3. Describe Physical Appearance: GREY TO BLACK SOLIDS

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [ ] Solid

6. Describe Color:

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	7004393H					
21. RCRA Waste Codes	K171					

22. Source Code: G09 | 23. Form Code: W319 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
NICKEL MONOXIDE	%		3	5
MSDS_TK-431			0	0
TEST AMERICA JOB NO. 600-27903-1			0	0
TEST AMERICA JOB NO. 600-28081-2			0	0
ALUMINUM OXIDE	%		75	85
Arsenic	MG/L	1.08	0	0
2-METHYLPHENOL	UG/L		1.88	36.1
3&4 METHYLPHENOL	UG/L		0.9	29.8
Molybdenum trioxide	%		13	17

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____

20. Flash Point ____ °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090070123-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	HDU2 CATALYST		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	Yes	X No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	K050	K051
K052	K169	K170	X K171	K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	-5
Solids (excluding Organics/Oil/TPH)	95
Organics /Oil/TPH	10

PROPERTIES (wet weight basis)

PHYSICAL STATE

X Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	2000
% of ASH	

Specific Constituents (ppm)	
Halogens*	
Mercury	
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	10000
Sulfides (total)	10000

Reclamation Facility Coordination Questions

☐ Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☐ No	If Catalyst, does material posses self heating properties?	
☐ Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	X No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090064853-1

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [X] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes:	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: FLAMMABLE LIQUIDS, N.O.S.

2. Hazard Class: 3 | 3. UN/NA #: UN1993 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [X] Other, Describe: tanker

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?:

8. Shipment Size: Quantity: 30,000.00

9. Waste Import: [ ] Yes [ ] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: PIPELINE FLUSH

2. Process Generating: PIPELINE PIGGING

3. Describe Physical Appearance: DARK BROWN TO BLACK LIQUID

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [ ] Solid

6. Describe Color:

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [X] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [ ] Industrial [X] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	NHNI					
21. RCRA Waste Codes						

22. Source Code: G13 | 23. Form Code: W219 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
NATURAL GAS PIPELINE CONDENSATE	%		0	20
Mercury	MG/L	0.92	0	0
HEAVY AROMATIC NAPHTHA	%		10	30
BUTAXYETHANOL	%		30	60
ETHYLENE GLYCOL	%		10	30
NAPHTHALENE	%		1	5
OXYALKYLATED ALCOHOL	%		1	5

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[ ] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.00 to 12.50 Typical

20. Flash Point 139 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [ ] Yes [X] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
DINA BABINSKI			03/31/2009

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090064853-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	PIPELINE FLUSH		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	12
Solids (excluding Organics/Oil/TPH)	1
Organics /Oil/TPH	87

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☒ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	
Mercury	
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	2999
Sulfides (total)	

Reclamation Facility Coordination Questions

- ☐ Yes ☒ No Contains Non-Friable Debris Material > 2-inch size? If yes, _____ % vol
- ☐ Yes ☐ No If Catalyst, does material posses self heating properties?
- ☐ Yes ☒ No Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes, _____ % vol
- ☐ Yes ☐ No Has the material been processed by a centrifuge prior to shipment?
- ☐ Yes ☒ No Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other _____ ppm
- ☐ Yes ☐ No Does the waste contain any surfactants?

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090064854-1

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [X] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes:	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: FLAMMABLE LIQUIDS, N.O.S.

2. Hazard Class: 3 | 3. UN/NA #: UN1993 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [X] Other, Describe: tanker

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?:

8. Shipment Size: Quantity: 30,000.00

9. Waste Import: [ ] Yes [ ] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: PIPELINE FLUSH

2. Process Generating: PIPELINE PIGGING

3. Describe Physical Appearance: DARK BROWN TO BLACK LIQUID

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [ ] Solid

6. Describe Color:

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [X] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [ ] Industrial [X] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	NHNI					
21. RCRA Waste Codes						

22. Source Code: G13 | 23. Form Code: W219 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
OXYALKYLATED ALCOHOL	%		1	5
Mercury	MG/L	0.92	0	0
HEAVY AROMATIC NAPHTHA	%		10	30
BUTOXYETHANOL	%		30	60
ETHYLENE GLYCOL	%		10	30
NAPHTHALENE	%		1	5
NATURAL GAS PIPELINE CONDENSATE	%		0	20

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[ ] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.00 to 12.50 Typical ____

20. Flash Point 139 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [ ] Yes [X] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			03/31/2009

US ecology

U.S. ECOLOGY TEXAS, INC. **PROFILE #** 090064854-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	PIPELINE FLUSH		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	12
Solids (excluding Organics/Oil/TPH)	1
Organics /Oil/TPH	87

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
☐ Solid	☒ Liquid	☐ Single Phased	☐ Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	
Mercury	
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	2999
Sulfides (total)	

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
☐ Yes	☐ No	If Catalyst, does material posses self heating properties?		
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
☐ Yes	☐ No	Has the material been processed by a centrifuge prior to shipment?		
☐ Yes	☒ No	Contains fuel oxygenates?	☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☐ No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090064851-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [X] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes:	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: FLAMMABLE LIQUIDS, N.O.S.

2. Hazard Class: 3 | 3. UN/NA #: UN1993 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [X] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?:

8. Shipment Size: Quantity: 30,000.00

9. Waste Import: [ ] Yes [ ] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: PIPELINE FLUSH

2. Process Generating: PIPELIEN PIGGING

3. Describe Physical Appearance: DARK BROWN TO BLACK LIQUID

4. Odor: [ ] None [ ] Slight [X] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [ ] Solid

6. Describe Color:

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [X] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [ ] Industrial [X] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	NHNI					
21. RCRA Waste Codes						

22. Source Code: G13 | 23. Form Code: W219 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
BUTOXYETHANOL	%		30	60
ETHYLENE GLYCOL	%		10	30
HEAVY AROMATIC NAPTHA	%		10	30
NAPTHALENE	%		1	5
OXYALKYLATED ALCOHOL	%		1	5
NATURAL GAS PIPELINE CONDENSATE	%		0	20
Mercury	MG/L	0.003	0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[ ] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 2.00 to 12.50 Typical

20. Flash Point 139 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [ ] Yes [X] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			03/31/2009

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090064851-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	PIPELINE FLUSH		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	12
Solids (excluding Organics/Oil/TPH)	1
Organics /Oil/TPH	87

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☐ Solid ☒ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	
Mercury	
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	2999
Sulfides (total)	

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,		% vol
☐ Yes	☐ No	If Catalyst, does material posses self heating properties?		
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,		% vol
☐ Yes	☐ No	Has the material been processed by a centrifuge prior to shipment?		
☐ Yes	☒ No	Contains fuel oxygenates?	☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☐ No	Does the waste contain any surfactants?		

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090081411-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: Quantity: 0.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: CHLORIDE ABSORBER CATALYST

2. Process Generating: CHLORIDE REMOVAL DURING GASOLINE REFORMING

3. Describe Physical Appearance: WHITE BALLS/ BEADS WITH SOME BLACK FINES AND AN AROMATIC ODOR

4. Odor: [ ] None [ ] Slight [X] Strong
5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid
6. Describe Color: WHITE
7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer
8. Knowledge is from: [ ] Lab Analysis [X] MSDS [ ] Process/Generator Knowlege
9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial
10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No
11. If LDR "Yes": [ ] Wastewater [ ] Non-Wastewater [ ] Debris(§268.2)
12. Alt. Standards for soil? [ ] Yes [X] No
13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):
14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw
15. Has it been treated after point of generation? [ ] Yes [X] No
16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No
17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No
18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No
19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS393H					
21. RCRA Waste Codes	D018					

22. Source Code: G09 | 23. Form Code: WTBD | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Benzene	MG/KG	76	0	0
Toluene		810	0	0
Ethylbenzene		400	0	0
XYLENE		5800	0	0
CATALYST SOLIDS	%		95	100
INORGANIC METALS	%		0	1
8260 HOC < 1500 PPM			0	0

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical 98.60

20. Flash Point 140 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090081411-0

WASTE/MATERIAL PROFILE FORM
THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	CHLORIDE ABSORBER CATALYST		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	97
Organics /Oil/TPH	3

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☒ Solid ☐ Liquid ☒ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	310
Mercury	0
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	1499
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			05/21/2013

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090081411-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: CHLORIDE ABSORBER CATALYST

Process generating the waste/material: CHLORIDE REMOVAL DURING GASOLINE REFORMING

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 76 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: ____ to ____ ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	5/23/2013

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090092326-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billing information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE SOLID, N.O.S. (CLARIFIED SLURRY OIL)

2. Hazard Class: 9 | 3. UN/NA #: NA3077 | 4. Packaging Group: II | 5. RQ: 100.00

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [X] Year [ ] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: 20 YARDS Quantity: 1.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: PPE CONTAMINATED W/K170 CLARIFIED SLURRY OIL

2. Process Generating: TANK CLEANING

3. Describe Physical Appearance: VARIES

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [ ] Sludge/Slurry [X] Solid

6. Describe Color: BLACK, VARIES

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [ ] N/A [X] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [ ] Non-Wastewater [X] Debris(§268.2) 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [X] Yes [ ] No

14. VO Conc.(§264.1083) : [X] <500 ppmw [ ] ≥500ppmw 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS319H					
21. RCRA Waste Codes	K170					

22. Source Code: G09 | 23. Form Code: W609 | 24. Management Code: H132 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
PPE CONTAMINATED W/ CLARIFIED SLURRY OIL	%	0	90	95
Benzene	PPM	0	0	200
WATER	%	0	5	5

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ [ ] <= 2 [X] 2<12.5 [ ] ≥12.5

20. Flash Point > 200 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	08/10/2015

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090092326-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	PPE CONTAMINATED W/K170 CLARIFIED SLURRY OIL		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☒ K170	☐ K171	☐ K172	☐ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	0
Solids (excluding Organics/Oil/TPH)	70
Organics /Oil/TPH	30

PROPERTIES (wet weight basis)

PHYSICAL STATE: ☒ Solid ☐ Liquid ☐ Single Phased ☐ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	2320
Mercury	0.04
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	1400
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes, ...	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes, ...	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	08/10/2015

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090092326-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: PPE CONTAMINATED W/K170 CLARIFIED SLURRY OIL

Process generating the waste/material: TANK CLEANING

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [ ] Yes [X] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 1 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% [ ] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: 0 to 200 ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [X] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	8/10/2015

Revised 1/2013

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090076026-1

A. CUSTOMER INFORMATION

1. Generator [redacted]	[ ] Billling information is same [X] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: [redacted]	16. Phone: ( ) - 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG	18. Email:
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 324110	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, LIQUID, N.O.S.

2. Hazard Class: 9 | 3. UN/NA #: NA3082 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: as needed

8. Shipment Size: Quantity: 10,000.00

9. Waste Import: [ ] Yes [ ] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: PROCESS WASTE LIQUIDS (WITH CHLORIDES) FOR THERMAL RECYCLING

2. Process Generating:

3. Describe Physical Appearance: BLACK OILY LIQUIDS

4. Odor: [ ] None [X] Slight [ ] Strong | 5. Physical State: [ ] Liquid [ ] Sludge/Slurry [ ] Solid

6. Describe Color: | 7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [ ] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2) | 12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw | 15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No | 17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0159219H					
21. RCRA Waste Codes	D001	D018	D039	D040		

22. Source Code: G07 | 23. Form Code: W219 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [ ] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Benzene	PPM	25	0	1000
Ethylbenzene	%	0.35	0	1
GLYCOL	%		0	10
Tetrachloroethylene	%		0	0.2
Toluene	%		0	3
Trichloroethylene	%		0	0.02
WASTE OIL (TPH)	%	50	50	100
WATER	%	50	50	100
Xylene (mixed isomers)	%		0	5

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [ ] Yes [X] No

18. Is waste/material a solid using the paint filter test? [ ] Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 5.00 to 12.00 Typical 6.14

20. Flash Point 85 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090076026-1

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	PROCESS WASTE LIQUIDS (WITH CHLORIDES) FOR THERMAL RECYCLING		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	☐ Yes	☒ No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	☐ Yes	☒ No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	☐ Yes	☒ No

The Petroleum Refining listed waste code associated with waste is:

☐ F037	☐ F038	☐ K048	☐ K049	☐ K050	☐ K051
☐ K052	☐ K169	☐ K170	☐ K171	☐ K172	☒ No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	50
Solids (excluding Organics/Oil/TPH)	0
Organics /Oil/TPH	50

PROPERTIES (wet weight basis)

PHYSICAL STATE

☐ Solid ☒ Liquid ☐ Single Phased ☒ Multi-Phased

Heating Value Btu/Lb	
% of ASH	

Specific Constituents (ppm)	
Halogens*	
Mercury	
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	1000
Sulfides (total)	0

Reclamation Facility Coordination Questions

☐ Yes	☒ No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
☐ Yes	☒ No	If Catalyst, does material posses self heating properties?	
☐ Yes	☒ No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
☐ Yes	☒ No	Has the material been processed by a centrifuge prior to shipment?	
☐ Yes	☒ No	Contains fuel oxygenates? ☐ MTBE ☐ Ethanol ☐ Other	ppm
☐ Yes	☒ No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]			

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090076026-1

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted]

EPA Generator #: [redacted]

Waste/Material Common Name: PROCESS WASTE LIQUIDS (WITH CHLORIDES) FOR THERMAL RECYCLING

Process generating the waste/material:

Type of Facility: [X] Refinery (SIC 2911) [ ] Coke by-products recovery (SIC 3312) [ ] Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [ ] < 1 Megagram (2,204 lbs) [ ] ≥1 but <10 Megagram [X] ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? [X] Yes [ ] No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 25 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [ ] ≤10% [X] >10%

Is this Process Unit Turnaround waste/material? [ ] Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: 0 to 1000 ppmw

This waste/material is classified as: [ ] Process wastewater stream [ ] Product tank drawdown [ ] Landfill leachate [ ] None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
[redacted]		[redacted]	4/12/2012

Revised 1/2013

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090100182-0

A. CUSTOMER INFORMATION

1. Generator [redacted]	[X] Billing information is same [ ] P.O. required for payment
2. Facility Address: [redacted]	12. Billing Company: [redacted]
3. Mailing Address: [redacted]	13. Billing Address: [redacted]
4. City/State/Zip [redacted]	14. City/State/Zip: [redacted]
5. Technical Contact: [redacted]	15. Billing Contact: [redacted]
6. Phone: [redacted] 7. Fax: ( ) -	16. Phone: [redacted] 17. Fax: ( ) -
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [ ] LQG	18. Email: [redacted]
9. EPA ID# [redacted]	10. State ID# [redacted]
11. NAICS/SIC Codes: 56221	

B. SHIPPING INFORMATION

1. US DOT Shipping Name: FLAMMABLE LIQUID, N.O.S.

2. Hazard Class: 3 | 3. UN/NA #: UN1993 | 4. Packaging Group: III | 5. RQ:

6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:

7. Frequency: [X] Year [ ] QTR [ ] Month [ ] 1 Time [ ] Other Describe?:

8. Shipment Size: Quantity: 10,000.00

9. Waste Import: [ ] Yes [X] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: TANK SLUDGE

2. Process Generating: REMOVAL OF SLUDGE FROM FUEL PRODUCT TANK

3. Describe Physical Appearance: BLACK SLUDGE WITH FREE LIQUIDS

4. Odor: [ ] None [X] Slight [ ] Strong

5. Physical State: [ ] Liquid [X] Sludge/Slurry [ ] Solid

6. Describe Color: GAS FUEL

7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer

8. Knowledge is from: [X] Lab Analysis [ ] MSDS [ ] Process/Generator Knowlege

9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial

10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No

11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)

12. Alt. Standards for soil? [ ] Yes [X] No

13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? (If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form): [ ] Yes [X] No

14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw

15. Has it been treated after point of generation? [ ] Yes [X] No

16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No

17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No

18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [X] Yes [ ] No

19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	0008114H					
21. RCRA Waste Codes	D001	D018				

22. Source Code: G14 | 23. Form Code: W110 | 24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: ☐ TCLP ☐ TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
SAND GRIT RUST SCALE AND SEDIMENT	%		40	60
HEAVY PETROLEUM SOLIDS	%		5	15
GAS FUEL OIL	%		1	5
WATER	%		25	60

E. CHARACTERISTICS

1. Oxidizer	☐ Yes	[X] No	9. Reactive Sulfides ____ ppm	☐ Yes	[X] No
2. Explosive	☐ Yes	[X] No	10. Reactive Cyanides ____ ppm	☐ Yes	[X] No
3. Organic Peroxide	☐ Yes	[X] No	11. Water/Air Reactive	☐ Yes	[X] No
4. Shock Sensitive	☐ Yes	[X] No	12. Thermally Unstable	☐ Yes	[X] No
5. Tires	☐ Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	☐ Yes	[X] No
6. Pyrophoric	☐ Yes	[X] No	14. Medical/Infectious Waste	☐ Yes	[X] No
7. Compressed Gases	☐ Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	☐ Yes	[X] No
8. Halogenated Organics	☐ Yes	[X] No			

16. Hazardous Secondary Material? ☐ Yes [X] No

17. Possibility of incidental liquids from transporation? [X] Yes ☐ No

18. Is waste/material a solid using the paint filter test? ☐ Yes (solid) [X] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range ____ to ____ Typical ____ ☐ <= 2 [X] 2<12.5 ☐ ≥12.5

20. Flash Point 108 °F [X] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? ☐ N/A ☐ Yes [X] No

F. GENERATOR'S CERTIFICATION

☐ Yes [X] No I certify this waste/material may be disposed of without further treatment.

☐ Yes ☐ N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

US ecology

U.S. ECOLOGY TEXAS, INC. **PROFILE #** 090100182-0

WASTE/MATERIAL PROFILE FORM
THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	TANK SLUDGE		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	[ ] Yes	[X] No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	[ ] Yes	[X] No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	[X] Yes	[ ] No

The Petroleum Refining listed waste code associated with waste is:

[ ] F037	[ ] F038	[ ] K048	[ ] K049	[ ] K050	[ ] K051
[ ] K052	[ ] K169	[ ] K170	[ ] K171	[ ] K172	[X] No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.
SLUDGE REMOVED FROMTHE BOTTOM OF A FUEK RECOVERY TANK

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	60
Solids (excluding Organics/Oil/TPH)	30
Organics /Oil/TPH	10

PROPERTIES (wet weight basis)

PHYSICAL STATE					Heating Value Btu/Lb	5000
[ ] Solid	[ ] Liquid	[ ] Single Phased	[X] Multi-Phased		% of ASH	

Specific Constituents (ppm)	
Halogens*	10000
Mercury	0.2
SVM (Pb, Cd)	5
LVM (As, Be, Cr)	5
Organic Chlorine from VOCs	1000
Sulfides (total)	1000

Reclamation Facility Coordination Questions

[ ] Yes	[X] No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
[ ] Yes	[X] No	If Catalyst, does material posses self heating properties?	
[ ] Yes	[X] No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
[ ] Yes	[X] No	Has the material been processed by a centrifuge prior to shipment?	
[X] Yes	[ ] No	Contains fuel oxygenates? [ ] MTBE [ ] Ethanol [ ] Other	ppm
[X] Yes	[ ] No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date
[redacted]		[redacted]	03/02/2017

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

US ecology

WASTE / MATERIAL PROFILE FORM

- [ ] US Ecology Nevada (Beatty) usencs@usecology.com
- [ ] US Ecology Idaho (Grandview) useics@usecology.com
- [x] US Ecology Texas (Robstown) usetcs@usecology.com
- [ ] US Ecology Michigan (Detroit) usemcs@usecology.com

PROFILE # 090073834-0

A. CUSTOMER INFORMATION

1. Generator [redacted]
2. Facility Address: [redacted]
3. Mailing Address: [redacted]
4. City/State/Zip [redacted]
5. Technical Contact:
6. Phone: ( ) -
7. Fax: [redacted]
8. Generator Status : [ ] VSQG/CESQG [ ] SQG, [X] LQG
9. EPA ID# [redacted]
10. State ID# [redacted]
11. NAICS/SIC Codes: 324110

[X] Billling information is same [ ] P.O. required for payment

12. Billing Company: [redacted]
13. Billing Address: [redacted]
14. City/State/Zip: [redacted]
15. Billing Contact: [redacted]
16. Phone: [redacted]
17. Fax: ( ) -
18. Email:

B. SHIPPING INFORMATION

1. US DOT Shipping Name: HAZARDOUS WASTE, SOLID, N.O.S.
2. Hazard Class: 9
3. UN/NA #: NA3077
4. Packaging Group: III
5. RQ: 1.00
6. Container Type: [X] Bulk [ ] Totes [ ] Pallet [ ] Bags [ ] Drums [ ] Boxes [ ] Other, Describe:
7. Frequency: [ ] Year [ ] QTR [ ] Month [ ] 1 Time [X] Other Describe?: AS Needed
8. Shipment Size: 1 Roll-Off Quantity: 0.00
9. Waste Import: [ ] Yes [ ] No
If yes, complete Waste Import Supplement

C. GENERAL MATERIAL & REGULATORY INFORMATION

1. Common Name: WASH PAD SLUDGE
2. Process Generating: WASH PAD SLUDGE
3. Describe Physical Appearance: BROWN TO BLACK SOLID/SEMI-SOLID
4. Odor: [ ] None [X] Slight [ ] Strong
5. Physical State: [ ] Liquid [ ] Sludge/Slurry [ ] Solid
6. Describe Color:
7. Liquid phases: [ ] Single [ ] Double Layer [ ] Multi-layer
8. Knowledge is from: [X] Lab Analysis [ ] MSDS [X] Process/Generator Knowlege
9. Waste/Material Type (US Ecology Texas customers only): [X] N/A [ ] Industrial [ ] Non-Industrial
10. Restricted under EPA Land Disposal Restrictions (§268): [X] Yes [ ] No
11. If LDR "Yes": [ ] Wastewater [X] Non-Wastewater [ ] Debris(§268.2)
12. Alt. Standards for soil? [ ] Yes [X] No
13. Is the material RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-product Recovery Plant (SIC 3312)? [X] Yes [ ] No
(If "Yes" complete Benzene Waste/Material Operations Supplement Form and Thermal Supplement Form):
14. VO Conc.(§264.1083) : [ ] <500 ppmw [X] ≥500ppmw
15. Has it been treated after point of generation? [ ] Yes [X] No
16. CERCLA Regulated (Superfund) Waste [ ] Yes [X] No
17. Butadiene waste regulated by §63 Subpart XX: [ ] Yes [X] No
18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If "yes", list all UHC's in Section D): [ ] Yes [X] No
19. Waste exempt from definition of "solid waste" or "hazardous waste" (If "Yes", list reference 40CFR [ ] Yes [X] No

20. State Waste Codes	OUTS603H					
21. RCRA Waste Codes	D002	D039	D040	K050		

22. Source Code: G09
23. Form Code: W603
24. Management Code: H039 (USE only)

D. COMPOSITION

Values are: [X] TCLP [X] TOTALS Range total ≥ 100%

Constituent	Units	Typical	Min	Max
Arsenic	MG/L	0.364	0	0
Benzene	MG/KG	9.9	0	100
Ethylbenzene	MG/KG		0	100
Mercury	MG/L	0.00139	0	0
POTASSIUM HYDROXIDE SOLUTION	%		0	20
RUST SCALE/DIRT/SLUDGE	%		80	100
TETRACHLOROETHENE	MG/L	4.8	0	0
TOTAL HYDROCARBONS	%		1	5
TRICHLOROETHENE	MG/L	0.74	0	0
Toluene	MG/KG		0	100
WATER	%		0	9.9

E. CHARACTERISTICS

1. Oxidizer	[ ] Yes	[X] No	9. Reactive Sulfides ____ ppm	[ ] Yes	[X] No
2. Explosive	[ ] Yes	[X] No	10. Reactive Cyanides ____ ppm	[ ] Yes	[X] No
3. Organic Peroxide	[ ] Yes	[X] No	11. Water/Air Reactive	[ ] Yes	[X] No
4. Shock Sensitive	[ ] Yes	[X] No	12. Thermally Unstable	[ ] Yes	[X] No
5. Tires	[ ] Yes	[X] No	13. TSCA Regulated PCB Waste (control sheet required with shipment)	[ ] Yes	[X] No
6. Pyrophoric	[ ] Yes	[X] No	14. Medical/Infectious Waste	[ ] Yes	[X] No
7. Compressed Gases	[ ] Yes	[X] No	15. Radioactive *(If yes, complete Profile Supplement for Radioactive Waste)*	[ ] Yes	[X] No
8. Halogenated Organics	[ ] Yes	[X] No			

16. Hazardous Secondary Material? [ ] Yes [ ] No

17. Possibility of incidental liquids from transporation? [X] Yes [ ] No

18. Is waste/material a solid using the paint filter test? [X] Yes (solid) [ ] No (not solid)

19. pH *(If solid, what is pH if mixed with water?)* Range 8.00 to 14.00 Typical 14.00

20. Flash Point 212 °F [ ] < 140° F

21. Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices? [ ] N/A [X] Yes [ ] No

F. GENERATOR'S CERTIFICATION

[ ] Yes [X] No I certify this waste/material may be disposed of without further treatment.

[ ] Yes [ ] N/A I certify this waste/material meets all requirements of legitimate recycling of Hazardous Secondary Materials under 40 CFR 260.43 and/or I am complying with the conditions for generators using the verified recycler exclusion.

I authorize US Ecology to correct inconsistencies on the waste/material profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste/material profile information if substantial changes are determined necessary. I understand waste/material that does conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties.

I certify, under penalty of law, that I am familiar with this waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that is form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

D. MATERIAL COMPOSITION CONTINUED

Waste Stream: 090073834-0

Values are: [X] TCLP [X] TOTALS

Range total ≥ 100%

Constituent	Units	Typical	Min	Max
XYLENE	MG/KG		0	200

US ecology

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090073834-0

WASTE/MATERIAL PROFILE FORM

THERMAL SUPPLEMENT

This form must be completed for all waste/material processed by US Ecology's Oil Reclamation Facility.

Oil bearing hazardous waste from petroleum refining, production or transportation practices will be recycled to generate a RCRA excluded fuel. Petroleum refining wastes/materials are those generated by processes engaged in producing hydrocarbon products such as gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, etc., through fractionation or straight distillation of crude oil, redistillation of unfinished petroleum derivatives, including cracking, gasification or other processes. This industry also produces aliphatic and aromatic chemicals as by-products. Waste/material generated through petroleum and natural gas production and transportation practices supporting this industry, such as crude petroleum extraction, transportation and bulk storage of petroleum products, natural gas extraction, transmission, distribution and storage will also be recycled to generate a RCRA excluded fuel.

Hazardous Secondary Materials (HSM) having similar chemical properties as petroleum refining wastes will also be recycled. Hazardous wastes not meeting the above criteria will be disposed, with the recovered oil being managed at an offsite RCRA TSDF.

A. GENERATOR INFORMATION

Name of Originating Facility:	[redacted]		
Name of Generator:	[redacted]	EPA Generator #:	[redacted]
Waste/Material Stream Name:	WASH PAD SLUDGE		

B. CHARACTERISTICS

Is the waste/material oil bearing from Petroleum Refining, Production or Transportation practices (see description above)?	Yes	X No
Is the waste/material RCRA excluded Hazardous Secondary Material (HSM)?	Yes	X No
For "characteristics byproducts" that are not excluded petroleum refining OBHW, are the oil constituents fuel themselves?	Yes	X No

The Petroleum Refining listed waste code associated with waste is:

F037	F038	K048	K049	X K050	K051
K052	K169	K170	K171	K172	No Petroleum Refining Listed Waste Code Applies

If no Petroleum Refining Listed Waste Code applies, please provide a detailed description of the process generating the waste/material.

C. COMPOSITION

PRIMARY COMPONENTS	TYPICAL % (Should total 100%)
Water	28
Solids (excluding Organics/Oil/TPH)	70
Organics /Oil/TPH	2

PROPERTIES (wet weight basis)

PHYSICAL STATE				Heating Value Btu/Lb	
X Solid	Liquid	Single Phased	Multi-Phased	% of ASH	

Specific Constituents (ppm)	
Halogens*	
Mercury	
SVM (Pb, Cd)	
LVM (As, Be, Cr)	
Organic Chlorine from VOCs	999
Sulfides (total)	0

Reclamation Facility Coordination Questions

Yes	X No	Contains Non-Friable Debris Material > 2-inch size? If yes,	% vol
Yes	X No	If Catalyst, does material posses self heating properties?	
Yes	X No	Contains Bitumen / Asphalt / Tar > 1% (wt.)? If yes,	% vol
Yes	X No	Has the material been processed by a centrifuge prior to shipment?	
Yes	X No	Contains fuel oxygenates? MTBE Ethanol Other	ppm
Yes	X No	Does the waste contain any surfactants?	

D. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Printed Name	Signature	Title	Date

*Halogens: Total Halogens includes Fluorine, Chlorine, Bromine and Iodine. Report weight (ppm) as Halogens.

(effective date 11/01/16)

U.S. ECOLOGY TEXAS, INC.

PROFILE # 090073834-0

WASTE/MATERIAL PROFILE FORM

BENZENE WASTE OPERATIONS SUPPLEMENT (BWON 40 CFR Part 61 Subpart FF)

This form must be completed for all hazardous waste/material containing benzene originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312).

A. GENERATOR INFORMATION

Name of Originating Facility: [redacted] | EPA Generator #: [redacted]

Waste/Material Common Name: WASH PAD SLUDGE

Process generating the waste/material: WASH PAD SLUDGE

Type of Facility: ☐ Refinery (SIC 2911) ☐ Coke by-products recovery (SIC 3312) ☐ Chemical manufacturing (SIC 2800 thru 2899)

Facility Total Annual Benzene Status (TAB): [X] < 1 Megagram (2,204 lbs) ☐ ≥1 but <10 Megagram ☐ ≥10 Megagram

Is the waste/material being transferred to US Ecology for offsite treatment compliance with 40 CFR Part 61.342(f)? ☐ Yes ☐ No*

By indicating "Yes", notice is provided that the waste/material referenced in this profile is subject to 40 CFR Part 61 Subpart FF (National Emission Standards for Benzene Waste Operations). All shipments under this profile are being transferred to US Ecology for the destruction or removal of benzene in accordance with 40 CFR Part 61.342 (C)(1)(i).

B. CHARACTERISTICS

The flow-weighted annual average benzene content by weight or process turnaround total concentration of this waste/material is: 9.9 ppmw

(Benzene concentration data must be total concentration by weight. DO NOT USE TCLP CONCENTRATIONS.)

The weighted average water content is? [X] ≤10% ☐ >10%

Is this Process Unit Turnaround waste/material? ☐ Yes [X] No

*Only if you answered "No" for offsite treatment compliance above, please supply the following:

Range of benzene total concentration: _____ to 100 ppmw

This waste/material is classified as: ☐ Process wastewater stream ☐ Product tank drawdown ☐ Landfill leachate ☐ None of the three

C. CERTIFICATION

I certify under penalty of law that I am familiar with the waste/material stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
			9/16/2011

Revised 1/2013

APPENDIX D

Section 6
EPA Air Pollution Control Cost Manual, Sixth Edition
EPA/452/B-02-001, January 2002

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EPA/452/B-02-001

EPA AIR POLLUTION CONTROL COST MANUAL

Sixth Edition

EPA/452/B-02-001

January 2002

United States Environmental Protection Agency
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

ED_002427A_00000317-00156

This sixth edition of the EPA Air Pollution Control Cost Manual was prepared by the Air Quality Strategies and Standards Division of the Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC 27711. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use. Copies of this report are available through the OAQPS Clean Air Technology Center (MD-15), U.S. Environmental Protection Agency, Research Triangle Park NC 27711, or from the National Technical Information Service, 5285 Port Royal Road, Springfield VA 22161, (phone: 1-800-553-6847.)

Questions and comments should be addressed to the principal editor, Daniel C. Mussatti, OAQPS, phone 919-541-0032.

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[1] New Chapter
[2] Planned Chapter

EPA/452/B-02-001

Section 6

Particulate Matter Controls

EPA/452/B-02-001

Chapter 2

Wet Scrubbers for Particulate Matter

Daniel Mussatti
Innovative Strategies and Economics Group
Air Quality Strategies and Standards Division
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

Paula Hemmer
E.H. Pechan & Associates, Inc.
3622 Lyckan Parkway, Suite 2002
Durham, NC 27707

July, 15 2002

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2.1 Introduction

Particulate matter (PM) is the general term used for a mixture of solid particles and liquid droplets suspended in air. U.S. EPA defines PM_{10} as particle matter having a nominal aerodynamic diameter of 10 micrometer (μm) or less. $PM_{2.5}$ is defined as PM less than or equal to 2.5μm in aerodynamic diameter. In general, "coarse PM" refers to PM_{10} while "fine" PM refers to $PM_{2.5}$.

A wet scrubber is an air pollution control device that removes PM and acid gases from waste gas streams of stationary point sources. The pollutants are removed primarily through the impaction, diffusion, interception and/or absorption of the pollutant onto droplets of liquid. The liquid containing the pollutant is then collected for disposal. There are numerous types of wet scrubbers which remove both acid gas and PM. This chapter addresses the design and cost of wet scrubbers for control of PM_{10} and $PM_{2.5}$. (See Section 5.2 Chapter 1 for information regarding wet scrubbers for acid gas control.)

Collection efficiencies for wet scrubbers vary with the particle size distribution of the waste gas stream. In general, collection efficiency decreases as the PM size decreases. Collection efficiencies also vary with scrubber type. Collection efficiencies range from greater than 99% for venturi scrubbers to 40-60% (or lower) for simple spray towers [1]. Improvements in wet scrubber designs have increased collection efficiencies in the sub-micron range.

Wet scrubber systems have some advantages over electrostatic precipitators (ESPs) and baghouses. Wet scrubbers are smaller and more compact than baghouses or ESPs. They have lower capital cost and comparable operation and maintenance (O&M) costs. Wet scrubbers are particularly useful in the removal of PM with the following characteristics:

- Sticky and/or hygroscopic materials (materials that readily absorb water);
- Combustible, corrosive and explosive materials;
- Particles which are difficult to remove in their dry form;
- PM in the presence of soluble gases; and
- PM in waste gas streams with high moisture content.

Wet scrubbers have numerous industrial applications including industrial boilers, incinerators, metals processing, chemical production, and asphalt production, and fertilizer production.

The primary disadvantage of wet scrubbers is that increased collection efficiency comes at the cost of increased pressure drop across the control system [2]. Another disadvantage is that they are limited to lower waste gas flow rates and temperatures than ESPs or baghouses. Current wet scrubber designs accommodate air flow rates over 47 actual cubic meters per second (m^3/s) (100,000 actual cubic feet per minute (acfm)) and temperatures of up to 400°C (750°F). Another disadvantage is that they generate waste in the form of a sludge which requires treatment and/or

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disposal. Lastly, downstream corrosion or plume visibility problems can result unless the added moisture is removed from the gas stream.

2.2 Process Description

This section presents wet scrubber designs used for the control of PM_{10} and $PM_{2.5}$ emitted from stationary point sources. Only commonly applied scrubber designs are addressed.

2.2.1 Capture Mechanisms

Particulates contact liquid droplets in wet scrubbers through several mechanisms. Impaction is the primary capture mechanism. When waste gas approaches a water droplet, it flows along streamlines around the droplet. Particles with sufficient inertial force maintain their forward trajectory and impact the droplet. Due to their mass, particles with diameters greater than 10 μm are generally collected using impaction [3]. Turbulent flow enhances capture by impaction.

Particles dominated by fluid drag forces follow the streamlines of the waste gas. However, particles that pass sufficiently close to a water droplet are captured by interception, capture due to the surface tension of the water droplet. Particles of of roughly 1.0 to 0.1 μm in diameter are subject to interception [21]. Increasing the density of droplets in a spray increases interception [1].

Very small-sized particles are subject to Brownian motion, irregular motion caused by random collisions with gas molecules. These particles are captured by the water droplet as they diffuse through the waste gas. Collection due to diffusion is most significant for particles less than 0.5 μm in diameter [1].

Capture mechaisms that are used less frequently include condensation and electrostatics. In condensation scrubbing, a gas stream is saturated with water vapor and the particle is captured when the water condenses on the particle [3]. In electrostatic scrubbing, contact is enhanced by placing an electrostatic charge on the particle, droplet, or both [2].

2.2.2 Scrubber Types

2.2.2.1 Spray Tower

The simplest type of scrubber is the spray tower. In a spray tower, particulate-laden air passes into a chamber where it contacts a liquid spray produced by spray nozzles. Towers can be placed in either vertical or horizontal waste gas flow paths. The liquid spray can be directed counter to the gas flow, in the same direction as the gas flow, or perpendicular to the gas flow. Figure 2.1 shows an example of a vertical countercurrent spray chamber. The gas flow enters at the bottom of the tower and flows upward. Water sprays downward from nozzles mounted on the

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walls of the tower or mounted on an array at the tower center. Water droplets capture particles suspended in the gas flow through impaction, interception and diffusion. Droplets large enough to settle by gravity collect at the bottom of the chamber. Droplets that remain entrained in the gas stream are collected on a mist eliminator upstream of the nozzles [2]. (Section 2.3.4 discusses mist eliminators in more detail)

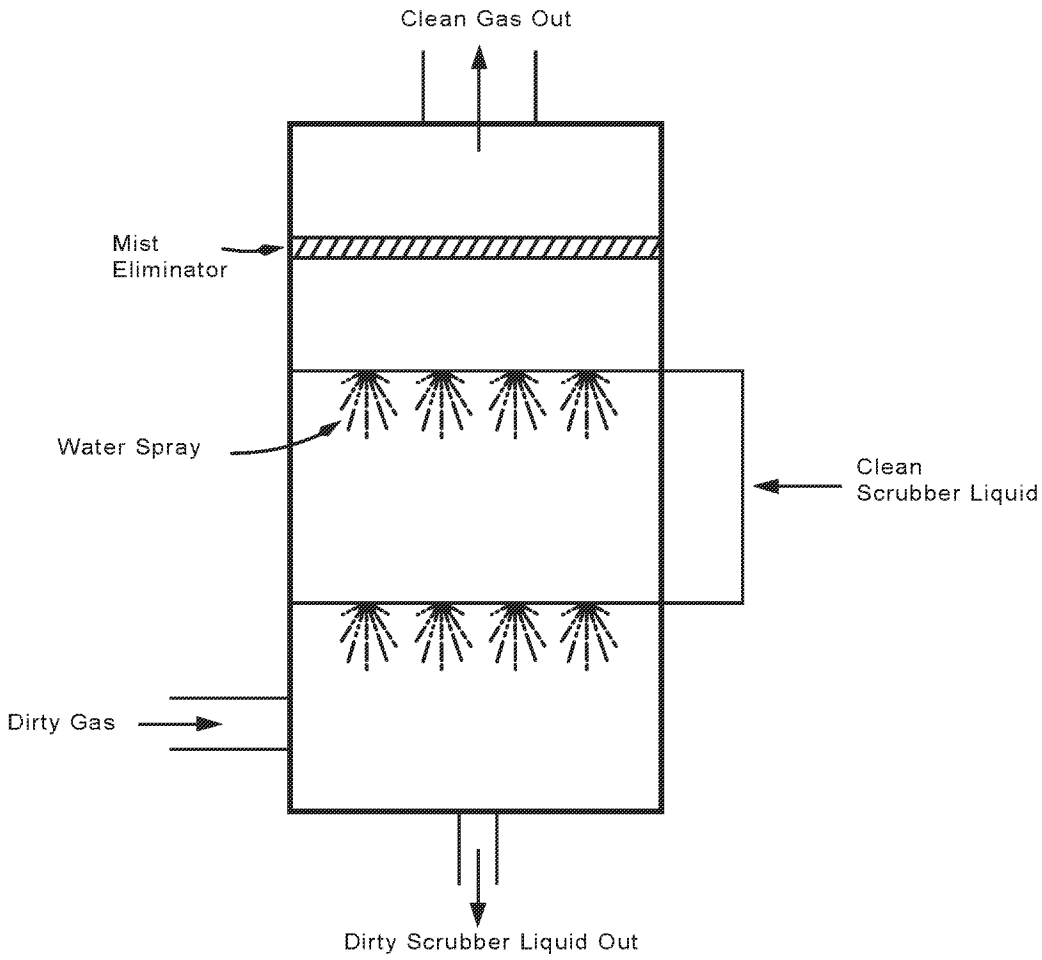

Figure 2.1: Spray Tower [4]

Spray towers rely primarily on particle collection by impaction; therefore, they have high collection efficiencies for coarse PM. Typical removal efficiencies for a spray tower can be as great as 90% for particles larger than 5 μm. Removal efficiencies for particles from 3 to 5 μm in diameter range from 60 to 80%. Below 3 μm, removal efficiencies decline to less than 50%. Spray tower applications include control of PM emissions from grinding operations, pigment

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operations, and dust control in fertilizer plants. Spray towers can also be applied to control PM from asphalt plant aggregate dryers [1].

Spray towers have lower capital costs than other wet scrubbers. Also, spray towers generally have lower power consumption and are not prone to fouling, so operating costs are also lower [5]. Operating costs of spray towers increase for fine PM applications, because such systems require high liquid to gas ratios (over 20 gallons per 1000 cubic feet (gal/1000 ft^3)). Typical gas flow rates for spray towers are 1 to 47 standard m^3/s (1,500 to 100,000 standard cubic feet per minute (scfm)) [6].

2.2.2.2 Cyclonic Spray Tower

Cyclonic spray towers differ from spray tower designs in that the waste gas stream flows through the chamber in a cyclonic motion. The cyclonic motion is produced by postitioning the gas inlet tangential to the wall of the scrubbing chamber or by placing turning vanes within the scrubbing chamber. The gas inlet is tapered so that the gas velocity increases as it enters the tower. The scrubbing liquid is sprayed from nozzles in a central pipe (tangential inlet) or from the top of the tower (turning vanes) [1]. Figure 2.2 shows a diagram of a cyclonic spray tower with a tangential inlet [4]. Liquid droplets entrained in the gas stream experience a centrifugal force resulting from the rotating motion of the gas stream, causing them to migrate toward to the tower walls [2]. The droplets impact on the tower walls and fall to the bottom of the tower. Droplets that remain entrained in the waste gas can be removed with a mist eliminator.

Cyclonic spray towers have greater collection efficiencies than simple spray towers due to the greater relative velocity between the droplets and the waste gas in a cyclonic tower. Collection efficiencies for this type of scrubber are as high as 95% for particles greater than 5 μm, and from 60% to 75% for submicron particles. Typical applications are for dust control in fertilizer plants, grinding operations, and foundries [1]. Gas flow rates range from 1 to 47 m^3/s (1,500 to 100,000 scfm), and power input for a cyclonic scrubber is generally 1 to 3.5 horsepower per 1000 cubic feet per minute (hp/1000 cfm) [2, 6]. Capital costs and operation and maintenance costs are slightly higher for cycolonic spray towers due to their more complex design.

2.2.2.3 Dynamic Scrubber

Dynamic scrubbers are also known as mechanically-aided scrubbers or disintegrator scrubbers. This type of scrubber is similar to spray towers, but with the addition of a power-driven rotor that shears the scrubbing liquid into finely dispersed droplets. The rotor can be located inside the tower or outside the tower, connected by a duct. A mist eliminator or cyclonic separator removes the liquid and captured PM. Most dynamic scrubber systems humidify the waste gas upstream of the rotor to reduce evaporation and particle deposition in the rotar area [1].

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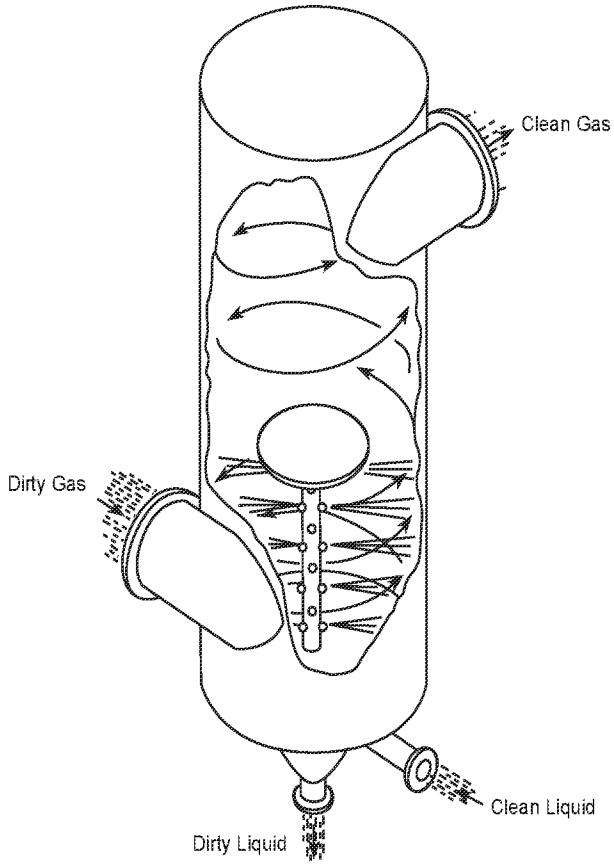

Figure 2.2: Cyclonic Spray Scrubber [3]

Dynamic scrubbers efficiently remove fine PM, but the addition of a rotar to the scrubber system increases the maintence costs. Large PM abrades the rotars and the humid gas stream corrodes them. A pretreatment device, such as a cyclone, often precedes a dynamic scrubber to remove large PM from the waste gas stream [6]. Power consumption is also high for this type of scrubber, between 4 to 10 kilowatts (kW) per 1000 acfm [6, 7]. Dynamic scrubbers generally can treat gas flow rates between 1,000 and 50,000 scfm. Collection efficiencies for dynamic scrubbers are similar to those for cyclonic spray towers [1]. Capital and O&M costs are moderately higher than costs for simple spray towers due to the rotar.

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2.2.2.4 Tray Towers

Tray tower scrubbers consist of a vertical tower with several perforated trays mounted horizontally in the tower. Gas enters the tower at the bottom and travels upward through openings in the trays, while the scrubbing liquid flows from the top and across each tray. The gas mixes with the liquid flowing over the tray, providing more gas-liquid contact than in spray tower designs. The gas velocity prevents liquid from flowing down through the perforations in the tray. The impingement plates are continuously washed clean of collected particles by the flowing liquid. Tray towers are designed to provide access to each tray for cleaning and maintenance [6]. Large PM can clog the perforations, therefore, some designs place impingement baffles upstream of each perforation to remove large PM prior to the waste gas entering the opening [6]. This type of tray tower is referred to as an impingement-plate or impactor scrubber.

Tray towers do not effectively remove submicron particles, however, collection efficiencies of 97% are possible for particles larger than 5 μm [5]. Tray towers also effectively remove soluble gases; therefore they are useful when both particulate and gaseous pollutants must be removed. Typical applications include lime kilns, bagasse and bark boilers, and secondary metals industries [1, 6]. Gas flow rates for tray tower designs are generally between 1,000 to 75,000 scfm. Liquid to gas ratios are low compared to spray towers and venturi scrubbers because the scrubbing liquid is essentially static [1]. Capital and O&M costs of tray and impingement towers are moderately higher than simple spray towers.

2.2.2.5 Venturi Scrubbers

A venturi scrubber has a "converging-diverging" flow channel. In this type of system the cross-sectional area of the channel decreases then increases along the length of the channel. Figure 2.3 presents a venturi scrubber. The narrowest area is referred to as the "throat". In the converging section, the decrease in area causes the waste gas velocity and turbulence to increase. The scrubbing liquid is injected into the scrubber slightly upstream of the throat or directly into the throat section. The scrubbing liquid is atomized by the turbulence in the throat, improving gas-liquid contact. The gas-liquid mixture then decelerates as it moves through the diverging section, causing additional particle-droplet impacts and agglomeration of the droplets. The liquid droplets are then separated from the gas stream in an entrainment section, usually consisting of a cyclonic separator and mist eliminator [3]. Design, operation and cost of venturi scrubbers are the focus of this chapter and are discussed in greater detail in Section 2.3.

Venturi scrubbers are more expensive than spray tower, cyclonic, or tray tower scrubbers, but collection efficiencies for fine PM are higher. High gas velocities and turbulence in the venturi throat result in high collection efficiencies, ranging from 70% to 99% for particles larger than 1 μm in diameter and greater than 50% for submicron particles [1,6]. Increasing the pressure drop in a venturi scrubber increases the efficiency, but the system's energy demand also increases leading to greater operational costs. Capital and O&M costs are moderately higher than costs for simple spray towers.

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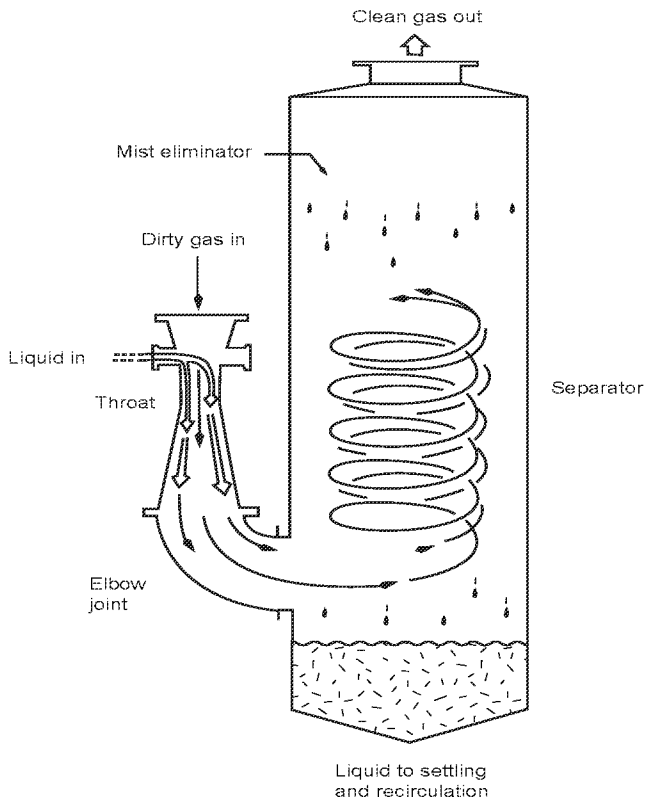

Figure 2.3: Venturi Scrubber with Cyclone Separator and Mist Eliminator [3]

2.2.2.6 Orifice Scrubber

In an orifice scrubber, also referred to as an impaction scrubber, the gas stream flows over the surface of a pool of scrubbing liquid. As the gas impinges on the water surface, it entrains droplets of the liquid. The waste gas then flows upward and enters an orifice with a narrower opening than the duct. The orifice induces turbulence in the flow which atomizes the entrained droplets. The atomized droplets capture the PM in the gas stream. A series of baffles then removes the droplets, which fall into the liquid pool below. Some orifice scrubbers have adjustable orifices to control the gas velocity. Orifice scrubbers accomodate gas flow rates up to 50,000 scfm and particle loadings up to 23 g/m^3 (10 grains per scf). The primary advantage of this type of scrubber is the elimination of a recirculation pump for the scrubbing liquid, which is a major contributor to operating costs for most scrubber designs [6]. The primary disadvantage is the difficulty of removing waste sludge. In most scrubber designs, waste continually drains from the bottom. Orifice scrubbers employ a static pool of scrubbing liquid, so waste sludge is removed with a sludge ejector, which operates like a conveyor belt. The sludge settles onto the ejector, which conveys it out of the scrubber [8].

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Orifice scrubbers are not widely used, but have been applied to dryers, cookers, crushing and grinding operations, spray operations(pill coating, ceramic glazing), ventilation (bin vents, dumping operations), and material handling (transfer stations, mixing, dumping, packaging). This type of scrubber can effectively remove PM over 2 μm in diameter, with control efficiencies ranging from 80-99%. Though orifice scrubbers can be designed as high-energy units, most are built for low-energy service. Capital and O&M costs are significantly higher than costs for simple spray towers.

2.2.2.7 Other Designs

Packed tower scrubbers are towers containing a bed of packing material. The packing material provides a large wetted surface for gas-liquid contact. Scrubbing liquid is introduced at the top of the tower and flows down through the packing, coating the packing and forming a thin film. Packing materials are available in a variety of forms, each having specific characteristics with respect to surface area, pressure drop, weight, corrosion resistance, and cost. Packed towers are most often used for gas adsorption rather than PM removal, because high particle concentrations can build up on the packing and clog the tower [6]. Packed-bed scrubbers are discussed in detail in Section 5.2, Chapter 1 of the Manual, "Wet Scrubbers for Acid Gas Control".

In a condensation scrubber, the particles act as condensation nuclei for the formation of water droplets. First, the gas stream is saturated with water vapor. Steam may also be injected to further increase the humidity ratio. The injection of water vapor and/or steam creates a condition of super-saturation leading to the condensation of water on particles in the gas stream. The droplets are then removed by a conventional device, such as a mist eliminator. Condensation scrubbers can effectively remove fine PM and have collection efficiencies of greater than 99%. However, the scrubber can only remove relatively small amounts of dust due to the amount of saturation and condensation that are capable of being maintained in the gas stream. Condensation scrubbers are generally intended to be used downstream of another scrubber that has already removed particles larger than 1 μm in diameter. Condensation scrubbing is a relatively new technology and has limited commercial availability [6]. Its most frequent application is to hazardous waste or medical waste incinerators.

Charged scrubbers enhance removal by placing an electrostatic charge on the water droplets, particles, or both prior to entering the scrubber. These scrubbers usually employ a conventional scrubber design, such as a spray tower. The particulates can be negatively or positively charged, with droplets given the opposite charge. Wet ESPs are similar devices which combine an ESP with flowing liquid to continuously clean electrostatic plates [1].

Commercially available wet scrubbers employ a wide range of design variations, including several hybrids of technologies. For example, a few manufacturers offer venturi scrubbers with multiple throats. Other manufacturers combine wet scrubber devices with other types of particulate removal, such as a baghouse or ESP.

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16. ABSTRACT

In Spanish, this document provides a detailed methodology for the proper sizing and costing of numerous air pollution control devices for planning and permitting purposes. Includes costing for volatile organic compounds (VOCs); particulate matter (PM); oxides of nitrogen (NOx); SO2, SO3, and other acid gasses; and hazardous air pollutants (HAPs).

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Economics Cost Engineering cost Sizing Estimation Design	Air Pollution control Incinerators Absorbers Adsorbers Filters Condensers Electrostatic Precipitators Scrubbers	

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APPENDIX E

CWM TDU Heat and Mass Balance and Likely Emissions without Proper Control

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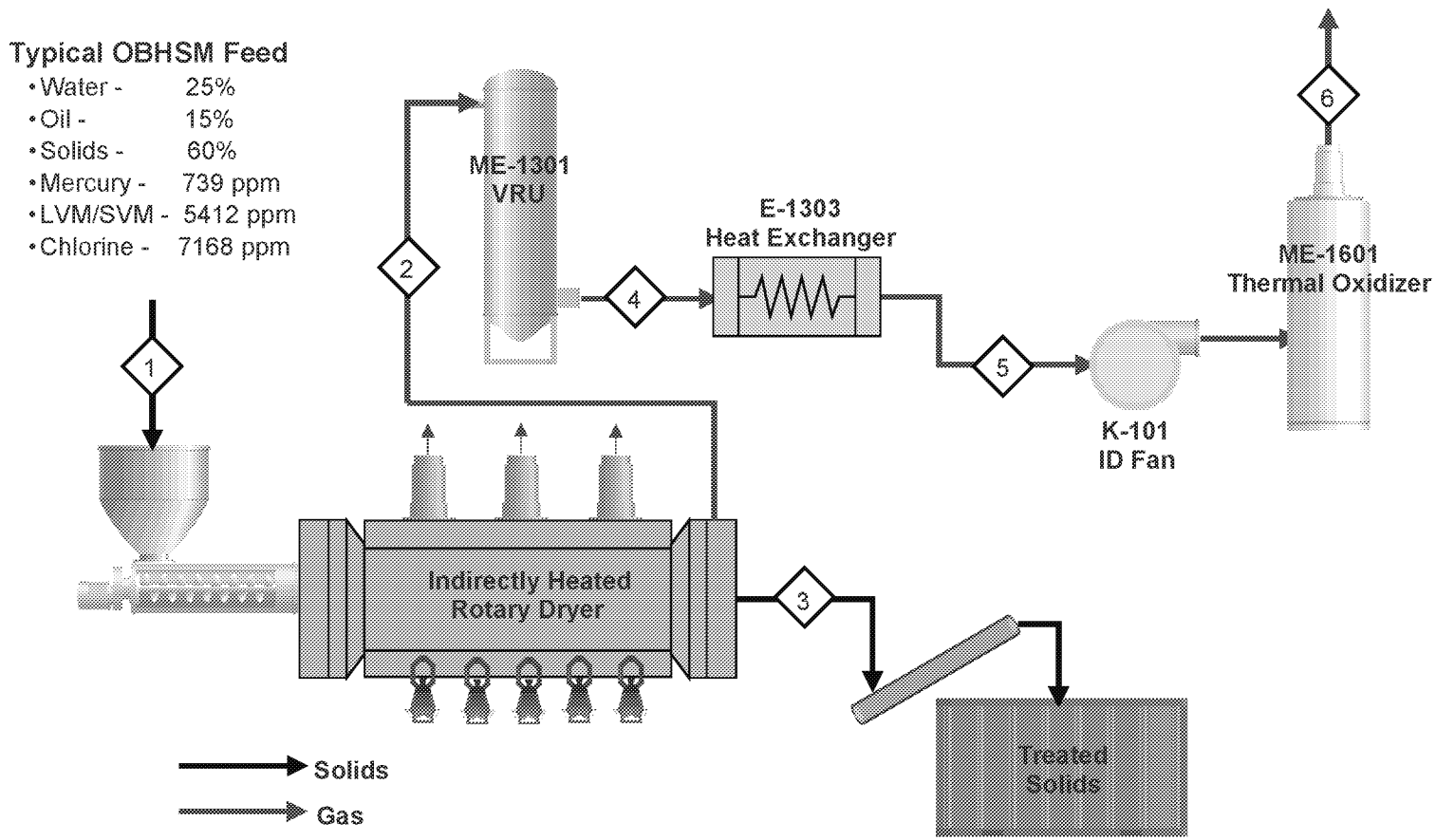
CWM TDU Process



STREAM NO. / COMPONENT		1	2	3	4	5	6
		SLUDGE FEED TO DRYER	DRYER VENT GAS	DRYER SOLIDS	VRU EXHAUST GAS	HEAT EXCHANGER EXHAUST GAS	THERMAL OXIDIZER EXHAUST GAS
CO2	LB/HR						2,045
O2	LB/HR		521		521	521	2,531
N2	LB/HR		1,729		1,729	1,729	15,495
H2O	LB/HR	5,000	5,017		8,969	388	1,258
SOLIDS / PARTICULATE	LB/HR	12,000	300	11,700	6	6	6
OIL / HYDROCARBONS	LB/HR	3,000	3,000		800	600	6
TOTAL MASS FLOW	LB/HR	20,000	10,567	11,700	12,025	3,244	21,341
VOLUMETRIC FLOW	ACFM		8,692		5,147	1,021	18,771
TEMPERATURE	°F	70	850	900	199	130	1600
PRESSURE	IN. W.C.	0.0	-1.0	0.0	-10.0	-15.0	0.0
ENTHALPY	MM BTU/HR	0.1	10.3	2.5	10.2	0.5	10.4

Stack Emissions ◇6	Units	MACT EEE	CWM	DEQ Air Permit
Particulate Matter	gr/dscf	0.0016	0.24	No Limit
Dioxins and Furans	ng/dscm	0.2	2.2	No Limit
Mercury	ug/dscm	8.1	59,647	No Limit
LVM / SVM	ug/dscm	23	4,980	No Limit
HCl	ppmV	21	1,789	No Limit
Particulate Matter	lb/hr	0.040	6.0	No Limit
Dioxins and Furans	lb/hr	2.18E-09	2.40E-08	No Limit
Mercury	lb/hr	0.00009	0.65	No Limit
LVM / SVM	lb/hr	0.00025	0.05	No Limit
HCl	lb/hr	0.35	29.5	No Limit

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WASTE_STREAM_NUMBER	WS_NAME	MERCURY_PPM
090087855	KINDER MORGAN PIPELINE SLUDGE AND SOLIDS	999
090087193	PIGGING WASTE (SLUDGE)	999
090099524	K050	763
090106031	RRDS - FAILS TS F037, <10PPM BZ, >1000PPM TPH, HG 628 PPM	628
090093937	RRDS - D018, >10PPM BZ, >1000PPM TPH, HG 550-600 PPM	572
090097246	OILY MATERIAL LEAD CHROME ARSENIC	571
090096509	OILY MATERIAL	571
090087036	DRIP LINE SOLIDS	496
090100216	ORBITAL SHAKER SLUDGE & REJECT FEED	434
090092675	ORBITAL SHAKER SLUDGE & REJECT FEED	434
Sample Size, n	N	10
Sample Mean	x (avg)	647
Sample variance	s^2	43,593
Std Dev	s	209
Standard error	sx=(s)/n^0.5	66
Standard error percent of avg	sx%	10%
"t" value at 90% conf. interval	t.20 See Table	1.39
90% Confidence Interval Limit	CI=(x-avg) + (t.20)(sx)	739

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WASTE_STREAM_NUMBER	WS_NAME	LVM_SVM_PPM
090103576	CFU SPENT CATALYSTS - REACTORS 801A & 801B	10,490
090106661	SWMU 46 F037 WASTE	7,403
090101921	CHROMIUM CATALYST	7,000
090102582	HAZARDOUS TANK BOTTOMS (NON-REACTIVE)	2,848
090104169	FILTER PRESS CAKE; HAZARDOUS (NON-REACTIVE); TANK T-8A	2,848
090103346	SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST	2,510
090103466	SPENT HYDROPROCESSING CATALYST (INCLUDING SWEEPINGS & FINES), TK341 & TK351 CATALYST - DRUMS	2,510
090101053	CHD1 SPENT CATALYST	1,898
090105022	DECOKE RESIDUE	1,604
090102214	DHT D-601 SPENT HYDROTREATING CATALYST	1,300
Sample Size, n	N	10
Sample Mean	x (avg)	4,041
Sample variance	s^2	9,692,264
Std Dev	s	3,113
Standard error	sx=(s)/n^0.5	984
Standard error percent of avg	sx%	24%
"t" value at 90% conf. interval	t.20 See Table	1.39
90% Confidence Interval Limit	CI=(x-avg) + (t.20)(sx)	5,412

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WASTE_STREAM_NUMBER	WS_NAME	CHLORINE_PPM
090099681	SCRUBBER FILTER WASTE/SLUDGE WITH PCE	20,000
090070123	HDU2 CATALYST	10,000
090064853	PIPELINE FLUSH	2,999
090064854	PIPELINE FLUSH	2,999
090064851	PIPELINE FLUSH	2,999
090081411	CHLORIDE ABSORBER CATALYST	1,499
090092326	PPE CONTAMINATED W/K170 CLARIFIED SLURRY OIL	1,400
090076026	PROCESS WASTE LIQUIDS (WITH CHLORIDES) FOR THERMAL RECYCLING	1,000
090100182	TANK SLUDGE	1,000
090073834	WASH PAD SLUDGE	999
Sample Size, n	N	10
Sample Mean	x (avg)	4,490
Sample variance	s^2	36,958,989
Std Dev	s	6,079
Standard error	sx=(s)/n^0.5	1,922
Standard error percent of avg	sx%	43%
"t" value at 90% conf. interval	t.20 See Table	1.39
90% Confidence Interval Limit	CI=(x-avg) + (t.20)(sx)	7,168

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Historical TD*X Waste Oil Content

Year	Total TD*X Waste (Tons)	Oil Reclaimed (Gallons)	Oil Reclaimed (Tons)	Oil Burned in T.O. (Tons)	Oil in Feed (Tons)	Oil in Feed (% wt.)	Waste Reclaimed (% wt.)	Waste Disposed (% wt.)
2012	38,449	1,396,667	5,584	714	6,299	16%	15%	85%
2013	33,182	1,301,357	5,203	665	5,868	18%	16%	84%
2014	31,390	1,147,087	4,587	656	5,242	17%	15%	85%
2015	44,676	1,572,505	6,288	1,043	7,330	16%	14%	86%
2016	46,236	1,518,994	6,074	988	7,061	15%	13%	87%
2017	49,869	1,082,830	4,330	895	5,225	10%	9%	91%
2018	26,416	475,814	1,902	526	2,429	9%	7%	93%
Total	270,218	8,495,254	33,967	5,487	39,454	**15%**	**13%**	**87%**

Note 1. Column 2 total tons data from TCEQ STEERS US Ecology facility receipts data.
Note 2. Column 3 oil volume data per Reclaimed Oil Load Log attached below

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
120104-619	7,201	PR1545	527-78-8/527-96-9	111212JST12/111229JST12
120105-620	6,968	PR1546	527-78-8/527-102-28	111212JST12/120103JST11
120106-621	6,834	PR1547	527-78-8/527-102-28	111212JST12/120101JST11
120106-622	6,375	PR1548	527-78-8/527-102-24	111212JST12/120103JST10
110109-623	6,976	PR1549	527-78-8/527-106-12	111212JST12/120106JST13
120113-624	6,757	PR1551	527-78-8/527-112-12	111212JST12/120112JST10
120113-625	6,568	PR1552	527-78-8/527-108-25	111212JST12/120109JST12
120114-626	6,799	PR1553	527-78-8/527-113-22	111212JST12/120113JST13
120118-627	6,417	PR1554	527-78-8/527-117-25	111212JST12/120116JST12
120118-628	6,849	PR1555	527-78-8/527-118-1	111212JST12/120116JST10
120119-629	6,867	PR1557	527-78-8/NA	111212JST12/120118JST13A
120121-630	6,461	PR1559	527-78-8/527-124-9	111212JST12/120120JST10
120125-631	6,549	PR1560	527-78-8/527-128-23	111212JST12/120124JST12
120127-632	6,600	PR1561	527-78-8/527-128-23	111212JST12/120124JST12
120128-633	6,127	PR1570	527-78-8/527-130-9	111212JST12/1201125JST10
120131-635	6,358	PR1579	527-78-8/527-137-23	111212JST12/120130JST12T13
120131-636	5,606	PR1580	527-121-10/527-137-23	120118JST13/120130JST12T13
120201-637	5,729	PR1586	527-121-10/527-139-19	120118JST13/120131JST13
120201-638	5,650	PR1585	527-121-10/527-139-19	120118JST13/120131JST13
120208-639	5,685	PR1596	527-121-10/527-143-13	120118JST13/120203JST12
120208-640	5,665	PR1597	527-121-10/527-143-13	120118JST13/120203JST12
120209-641	5,783	PR1601	527-121-10/527-148-13	120118JST13/120207JST10
120209-642	5,720	PR1602	527-121-10/527-148-13	120118JST13/120207JST10
120215-643	5,262	PR1605	527-121-10/527-153-22	120118JST13/120214JST13
120217-644	5,408	PR1606	527-121-10/527-153-22	120118JST13/120214JST13
120222-645	5,690	PR1628	527-121-10/527-161-8	120118JST13/120221JST13
120222-646	5,685	PR1629	527-121-12/527-161-4	120118JST13/120221JST12
120223-647	5,833	PR1632	527-121-10/527-161-27	120118JST13/120222JST10
120221-648	5,022	PR1623	527-121-10/527-159-13	120118JST13/120220JST10
120224-649	5,259	PR1636	527-121-10/527-159-13	120118JST13/120220JST10
120223-650	5,625	PR1634	527-121-10/527-163-5	120118JST13/120223JST31
120301-651	5,897	PR1652	527-121-10/527-169-3	120118JST13/120229JST12
120302-652	5,448	PR1653	527-121-10/527-169-3	120118JST13/120229JST12
120303-653	5,646	PR1654	527-121-10/527-171-9	120118JST13/120302JST13
120309-654	5,596	PR1655	527-121-10/527-175-20	120118JST13/120306JST10
120310-655	5,277	PR1664	527-121-10/527-175-24	120118JST13/120306JST12
120312-656	5,571	PR1665	527-164-11/527-179-20	120224JST12/120309JST31
120314-657	6,146	PR1670	527-164-11/527-185-11	120224JST12/120312JST12
120314-658	5,911	PR1672	527-164-11/527-186-15	120224JST12/120314JST13
120315-659	6,134	PR1674	527-164-11/527-185-6	120224JST12/120313JST10
120315-660	5,776	PR1675	527-164-11/527-186-15	120224JST12/120314JST13
120322-661	6,071	PR1695	527-164-11/527-189-23	120224JST12/120316JST12
120321-662	5,811	PR1692	527-164-11/527-189-19	120224JST12/120316JST10
120321-663	6,222	PR1689	527-164-11/527-189-19	120224JST12/120316JST10
120327-664	6,225	PR1702	527-164-11/527-195-15	120224JST12/120321JST13
120327-665	6,357	PR1703	527-164-11/527-197-16	120224JST12/120323JST10
120329-666	6,741	PR1705	527-164-11/527-197-16	120224JST12/120323JST10
120330-667	6,371	PR1706	527-164-11/527-205-8	120224JST12/120329JST13
120330-668	6,410	PR1707	527-164-11/527-203-5	120224JST12/120328JST12
120403-669	6,297	PR1708	527-164-11/527-203-5	120224JST12/120328JST12
120403-670	6,410	PR1709	527-164-11/530-1-19	120224JST12/120402JST10A
120406-671	6,236	PR1712	527-164-11/530-2-16	120224JST12/120403JST13
120411-672	5,858	PR1721	527-164-11/530-8-27	120224JST12/120409JST13T12
120412-673	6,134	PR1722	527-164-11/530-12-19	120224JST12/120412JST10
120413-674	6,550	PR1723	527-164-11/530-13-6	120224JST12/120412JST13T12
120417-675	6,390	PR1724	527-164-11/530-18-4	120224JST12/120416JST10T12
120419-676	5,127	PR1728	530-1-16/530-21-1	120402JST10/120418JST10
120421-677	5,959	PR1730	530-1-16/530-23-13	120402JST10/120420JST13
120421-678	5,930	PR1731	530-1-16/530-23-13	120402JST10/120420JST13
120425-679	6,148	PR1731	530-1-16/530-27-7	120402JST10/120424JST10
120427-680	6,287	PR1733	530-1-16/530-28-11	120402JST10/120425JST13
120428-681	5,551	PR1739	530-1-16/530-29-9	120402JST10/120426JST33
120428-682	4,874	PR1740	530-1-16/530-29-9	120402JST10/120426JST33
120501-683	6,348	PR1746	530-1-16/530-33-24	120402JST10/120430JST10

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Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
120501-684	5,772	PR1747	530-1-16/530-34-14	120402JST10/120430JST13
120501-685	6,116	PR1748	530-1-16/530-34-14	120402JST10/120430JST13
120502-686	5,962	PR1749	530-1-16/530-33-24	120402JST10/120430JST10
120503-687	5,807	PR1750	530-1-16/530-36-25	120402JST10/120502JST33
120504-688	6,337	PR1753	530-1-16/530-38-11	120402JST10/120503JST10
120505-689	5,541	PR1757	530-1-16/530-38-11	120402JST10/120503JST10
120508-690	6,297	PR1767	530-1-16/530-42-19	120402JST10/120502JST13
120509-691	6,308	PR1770	530-1-16/530-42-19	120402JST10/120507JST13
120510-692	5,847	PR1774	530-1-16/530-43-13	120402JST10/120508JST10
120511-693	6,108	PR1775	530-1-16/530-46-16	120402JST10/120510JST12
120515-694	6,188	PR1794	530-1-16/530-51-22	120402JST10/120514JST13
120516-695	6,548	PR1802	530-38-2/530-51-18	120503JST13/120514JST10
120517-696	5,939	PR1808	530-1-16/530-51-18	120402JST10/120514JST10
120517-697	6,429	PR1810	530-38-2/530-53-2	120503JST13/120515JST12
120519-698	5,939	PR1810	530-38-2/530-55-22	120503JST13/120517JST13
120521-699	5,251	PR1813	530-38-2/530-55-22	120503JST13/120517JST13
120521-700	6,363	PR1814	530-38-2/530-60-20	120503JST13/120521JST10
120523-701	6,488	PR1815	530-38-2/530-62-1	120503JST13/120522JST12
120523-702	6,453	PR1816	530-38-2/530-62-9	120503JST13/120522JST10
120524-703	5,849	PR1817	530-38-2/530-62-9	120503JST13/120522JST10
120529-704	6,192	PR1819	530-38-2/530-71-26	120503JST13/120528JST13
120529-705	6,119	PR1820	530-38-2/530-71-26	120503JST13/120528JST13
120530-706	6,032	PR1824	530-38-2/530-73-2	120503JST13/120529JST10
120607-707	6,540	PR1840	530-38-2/NA	120503JST13/120531JST13
120607-708	6,363	PR1841	530-38-2/530-80-9	120503JST13/120604JST13
120607-709	5,925	PR1842	530-38-2/530-80-9	120503JST13/120604JST13
120608-710	6,053	PR1843	530-38-2/530-80-4	120503JST13/120604JST10
120612-711	6,037	PR1844	530-38-2/530-83-12	120503JST13/120607JST11
120613-712	6,230	No Pr #	530-38-2/530-88-14	120503JST13/120611JST12
120615-713	6,230	PR1846	530-38-2/530-88-19	120503JST13/120611JST13
120615-714	6,192	PR1847	530-38-2/530-88-19	120503JST13/120611JST13
120615-715	6,619	PR1849	530-38-2/530-93-7	120503JST13/120614JST11
120618-716	6,124	PR1850	530-89-10/530-91-27	120611JST11A/120613JST10
120620-717	6,091	PR1851	530-89-01/530-94-13	120611JST11A/120615JST12
120621-718	5,506	PR1853	530-89-10/530-96-26	120611JST11A/120618JST11
120622-719	5,779	PR1854	530-89-10/530-98-8	120611JST11A/120619JST10
120623-720	5,896	PR1860	530-89-10/530-101-14	120611JST11A/120622JST13
120623-721	5,454	PR1861	530-89-10/530-98-8	120611JST11A/120619JST10
120630-722	5,262	PR1867	530-89-10/530-110-20	120611JST11A/120627JST10
120630-723	5,077	PR1866	530-89-10/530-108-9	120611JST11A/120626JST12
120629-724	5,709	PR1864	530-89-10/530-110-15	120611JST11A/120627JST13
120629-726	5,719	PR1865	530-89-10/530-108-9	120611JST11A/120626JST12
120707-727	5,621	PR1897	530-89-10/530-121-17	120611JST11A/120706JST13
120707-728	5,624	PR1890	530-89-10/530-121-17	120611JST11A/120706JST13
120710-729	4,115	PR1897	530-89-10/530-121-26	120611JST11A/120706JST32
120710-730	4,340	PR1894	530-89-10/530-121-26	120611JST11A/120706JST32
120712-731	5,636	PR1903	530-89-10/530-127-22	120611JST11A/120710JST13
120712-732	5,564	PR1906	530-89-10/530-125-20	120611JST11A/120709JST10
120712-733	5,909	PR1908	530-89-10/530-131-1	120611JST11A/120712JST32
120713-734	5,824	PR1909	530-89-10/530-129-16	120611JST11A/120711JST12
120713-735	5,826	PR1910	530-89-10/530-129-16	120611JST11A/120711JST12
120711-736	5,974	PR1898	530-89-10/530-125-20	120611JST11A/120709JST10
120718-737	6,000	PR1925	530-128-1/530-135-1	120710JST12/120716JST10
120718-738	5,707	No Pr #	530-128-1/530-135-5	120710JST12/120716JST13
120720-744	5,386	PR1927	530-128-1/530-138-21	120710JST12/120719JST12
120720-745	5,665	PR1929	530-128-1/530-135-1	120710JST12/120716JST10
120721-746	5,373	PR1930	530-128-1/530-135-1	120710JST12/120716JST10
120724-747	5,610	PR1931	530-128-1/530-145-4	120710JST12/120723JST13
120727-748	5,975	PR1933	530-128-1/530-150-1	120710JST12/120726JST12
120728-749	5,383	PR1934	530-128-1/530-150-5	120710JST12/120726JST13
120728-750	5,326	PR1935	530-128-1/530-150-1	120710JST12/120726JST12
120726-751	5,960	PR1932	530-128-1/530-144-28	120710JST12/120723JST10
120731-752	5,905	PR1937	530-128-1/530-155-12	120710JST12/120730JST10
120801-754	5,605	PR1939	530-128-1/530-156-26	120710JST12/120731JST13

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
120801-755	5,879	PR1940	530-128-1/530-155-16	120710JST12/120730JST12
120801-757	5,644	PR1950	530-128-1/530-160-4	120710JST12/120802JST10
120805-758	5,900	PR1953	530-128-1/530-161-12	120710JST12/120803JST11
120807-759	6,267	PR1954	530-128-1/530-161-16	120710JST12/120803JST13
120808-760	6,134	PR1955	530-128-1/530-161-20	120710JST12/120803JST12
120808-761	5,754	PR1956	530-128-1/530-167-27	120807JST11/120710JST12
120810-762	5,908	PR1957	530-128-1/530-167-23	120710JST12/120807JST10
120810-763	5,636	PR1958	530-128-1/530-171-13	120710JST12/120809JST13
120811-764	5,855	PR1959	530-161-25/530-171-17	120801JST12/120809JST12
120813-765	5,746	PR1962	530-161-25/530-171-13	120801JST12/120809JST13
120814-766	5,357	PR1966	530-161-25/530-178-7	120801JST12/120813JST13
120815-767	5,394	PR1967	530-161-25/530-178-19	120801JST12/120813JST33
120815-768	5,668	PR1973	530-161-25/530-178-15	120801JST12/120813JST10
120816-769	5,951	PR1974	530-161-25/530-178-11	120801JST12/120813JST11
120817-770	5,479	PR1978	530-161-25/530-178-11	120801JST12/120813JST11
120817-771	5,570	PR1979	530-161-25/530-182-12	120801JST12/120816MHT12
120820-772	5,594	PR1989	530-161-25/530-182-12	120801JST12/120816MHT12
120821-773	5,186	PR1993	530-161-25/530-189-9	120801JST12/120820JST11
120822-774	5,652	PR1998	530-161-25/530-189-5	120801JST12/120820JST10
120824-775	5,660	PR2014	530-161-25/530-189-14	120801JST12/120820JST13
120831-776	5,722	PR2018	530-161-25/530-194-16	120801JST12/120823JST12
120831-777	5,751	PR2019	530-161-25/530-203-20	120801JST12/120831JST11
120905-778	5,738	PR2024	530-161-25/530-208-18	120801JST12/120904JST13
120907-779	6,001	PR2037	530-161-25/530-208-27	120801JST12/120904JST10
120908-780	6,012	PR2038	530-161-25/530-208-23	120904JST11/120801JST12
120911-781	5,860	PR2039	530-161-25/532-8-22	120801JST12/120910JST13
120913-782	5,215	PR2043	530-161-25/532-8-18	120801JST12/120910JST12
120913-783	2,081	PR2044	530-161-25/532-8-14	120801JST12/120910JST11
120915-784	5,887	PR2045	530-194-16/532-8-11	120823JST12/120910JST10
120915-785	5,652	PR2047	530-194-16/532-13-13	120823JST12/120914JST13
120917-786	5,588	PR2051	530-194-16/532-8-14	120823JST12/120910JST11
120921-787	6,103	PR2061	530-194-16/532-16-5	120823JST12/120917JST12
120921-788	5,373	PR2062	530-194-16/532-20-15	120823JST12/120920JST13
120922-789	5,738	PR2066	530-194-16/532-20-11	120823JST12/120920JST10
120922-790	5,607	PR2068	530-194-16/532-22-18	120823JST12/120921JST11
120922-791	5,778	PR2069	530-194-16/532-20-15	120823JST12/120920JST13
120925-792	5,866	PR2080	530-194-16/532-27-27	120823JST12/120925JST12
120926-793	5,442	PR2088	530-194-16/532-27-19	120823JST12/120925JST10
120926-794	5,703	PR2089	530-194-16/532-27-23	120823JST12/120925JST11
120927-795	5,724	PR2093	530-194-16/532-30-13	120823JST12/120927JST13
120928-796	6,162	PR2097	530-194-16/532-30-18	120823JST12/120927JST31
120929-797	6,316	PR2099	530-194-16/532-32-15	120823JST12/120928JST12
121006-798	5,708	PR2107	532-33-2/532-38-26	120928JST12A/121002JST10
121009-799	5,895	PR2120	530-194-16/532-50-17	120823JST12/121009JST11
121013-800	5,879	PR2121	530-194-16/532-57-12	120823JST12/121012JST12
121012-801	5,442	PR2122	530-194-15/532-50-12	120823JST12/121009JST10
121016-802	4,895	PR2129	530-194-16/532-65-2	120823JST12/121016JST11
121019-803	2,790	PR2145	532-33-2/532-70-27	120928JST12A/121019JST13
121019-804	2,915	PR2146	532-33-2/532-70-27	120928JST12A/121019JST13
121025-805	5,930	No Pr #	532-33-2/532-82-2	120928JST12A/121025JST10T13
121026-806	5,759	PR2175	532-33-2/532-82-2	120928JST12A/121025JST10T13
121027-807	5,924	PR2178	532-33-2/532-83-26	120928JST12A/121026JST10T11
121027-808	5,714	PR2181	532-33-2/532-83-26	120928JST12A/121026JST10T11
121031-809	6,151	PR2186	532-33-2/532-89-27	120928JST12A/121031JST10T11
121101-810	6,505	PR2187	532-33-2/532-89-27	120928JST12A/121031JST10T11
121101-811	5,919	PR2188	532-33-2/532-89-27	120928JST12A/121031JST10T11
121104-812	5,985	PR2189	532-33-2/532-93-12	120928JST12A/121102JST10T33
121102-813	2,998	PR2191	532-33-2/532-93-12	120928JST12A/121102JST10T33
121103-814	6,135	PR2193	532-33-2/532-94-20	120928JST12A/121102JST10T13
121103-815	6,132	PR2192	532-33-2/532-94-20	120928JST12A/121102JST10T13
121104-816	5,970	PR2194	532-33-2/532-93-8	120928JST12A/121102JST11
121104-817	5,954	PR2195	532-33-2/532-93-8	120928JST12A/121102JST11
121105-818	6,401	PR2196	532-33-2/532-99-16	120928JST12A/121105JST12T13
121105-819	6,060	PR2197	532-33-2/532-99-4	120928JST12A/121105JST10T11

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
121106-820	6,033	PR2199	532-33-2/532-99-4	120928JST12A/121105JST10T11
121106-821	6,137	PR2200	532-33-2/532-99-4	120928JST12A/121105JST10T11
121107-822	5,946	PR2201	532-33-2/532-102-24	120928JST12A/121107JST10T11
121114-823	5,890	PR2209	532-99-8/532-112-19	121105JST12/121114MHT10T12
121114-824	5,871	PR2208	532-99-8/532-112-19	121105JST12/121114MHT10T12
121115-825	6,312	PR2213	532-99-8/532-112-19	121105JST12/121114MHT10T13
121115-826	5,508	PR2214	532-99-8/532-112-19	121105JST12/121114MHT10T13
121116-827	5,800	PR2217	532-99-8/532-112-19	121105JST12/121114MHT10T13
121116-828	6,132	PR2221	532-99-8/532-112-19	121105JST12/121114MHT10T12
121117-829	5,759	PR2226	532-99-8/532-112-19	121105JST12/121114MHT10T12
121119-830	6,340	PR2227	532-99-8/532-120-15	121105JST12/121119JST10T11
121119-831	6,013	PR2229	532-99-8/532-120-20	121105JST12/121119JST10T12
121121-832	6,152	PR2233	532-99-8/532-123-24	121105JST12/121121JST10T11
121126-833	5,754	PR2236	532-99-8/532-130-5	121105JST12/121126JST10T12
121126-834	5,962	PR2237	532-99-8/532-130-5	121105JST12/121126JST10T12
121127-835	5,375	PR2238	532-99-8/532-130-9	121105JST12/121126JST11T13
121127-836	6,017	PR2239	532-99-8/532-130-9	121105JST12/121126JST11T13
121130-837	5,996	PR2241	532-99-8/532-134-5	121105JST12/121129JST12T11
121201-838	5,887	PR2242	532-99-8/532-134-5	121105JST12/121129JST12T11
121203-839	6,231	PR2243	532-99-8/532-135-12	121105JST12/121130JST10T12
121204-840	6,154	PR2247	532-99-8/532-135-12	121105JST12/121130JST10T12
121205-841	6,250	PR2251	532-99-8/532-135-12	121105JST12/121130JST10T12
121205-842	6,359	PR2253	532-99-8/532-139-12	121105JST12/121204MHT10T13
121206-843	6,152	PR2254	532-130-16/532-139-12	121126JST11/121204MHT10T13
121206-844	5,799	PR2258	532-130-16/532-139-12	121126JST11/121204MHT10T13
121207-845	5,578	PR2260	532-130-16/532-140-19	121126JST11/121206MHT12
121206-846	5,552	PR2261	532-130-16/532-140-19	121126JST11/121206MHT12
121208-847	5,748	PR2265	532-130-16/532-140-19	121126JST11/121206MHT12
121211-848	5,406	PR2276	532-130-16/532-146-4	121126JST11/121211JST10T12T13
121211-849	6,293	PR2278	532-130-16/532-146-4	121126JST11/121211JST10T12T13
121213-850	6,479	PR2281	532-130-16/532-146-4	121126JST11/121211JST10T12T13
121213-851	5,985	PR2283	532-130-16/532-149-7	121126JST11/121213JST10T12T13
121217-852	6,101	PR2291	532-130-16/532-149-7	121126JST11/121213JST10T12T13
121218-853	6,258	PR2295	532-130-16/532-149-7	121126JST11/121213JST10T12T13
121219-854	6,277	PR2296	532-130-16/532-156-19	121126JST11/121912MHT33T10T11
121220-855	5,713	PR2297	532-130-16/532-156-19	121126JST11/121912MHT33T10T11
121220-856	6,126	PR2298	532-130-16/532-156-19	121126JST11/121912MHT33T10T11
121220-857	6,004	PR2299	532-130-16/532-155-17	121126JST11/121218JST12
121221-858	6,010	PR2300	532-130-16/532-159-21	121126JST11/121221JST10T13
121221-859	6,322	No Pr #	532-130-16/532-159-21	121126JST11/121221JST10T13
121226-860	6,000	PR2303	532-130-16/532-163-10	121126JST11/121226JST10T13
121226-861	6,096	PR2304	532-130-16/532-163-10	121126JST11/121226JST10T13
121228-862	6,101	PR2305	532-130-16/532-164-18	121126JST11/121227JST10T11
121228-863	5,813	PR2306	532-130-16/532-164-18	121126JST11/121227JST10T11
121229-864	5,759	PR2307	532-130-16/532-164-18	121126JST11/121227JST10T11
121231-865	5,894	PR2308	532-159-14/532-169-19	121221JST13/121231JST10T11T12
121231-866	5,372	PR2312	532-159-14/532-169-19	121221JST13/121231JST10T11T12
130103-867	5,838	PR2313	532-159-14/532-169-19	121221JST13/121231JST10T11T12
130103-868	6,138	PR2317	532-159-14/532-172-25	121221JST13/130103MHT10
130104-869	6,094	PR2318	532-159-14/532-169-19	121221JST13/121231JST10T11T12
130105-870	5,977	PR2325	532-159-14/532-172-25	121221JST13/130103MHT10
130107-871	6,171	PR2324	532-159-14/532-179-14	121221JST13/130107JST10T11
130109-872	6,217	PR2329	532-159-14/532-179-14	121221JST13/130107JST10T11
130110-873	6,078	PR2332	532-159-14/532-179-14	121221JST13/130107JST10T11
130112-874	6,304	PR2342	532-159-14/532-184-16	121221JST13/130111JST10T11
130112-875	6,438	PR2341	532-159-14/532-184-16	121221JST13/130111JST10T11
130116-876	6,124	PR2358	532-159-14/532-192-16	121221JST13/130116JST11
130119-877	5,863	PR2359	532-159-14/532-192-16	121221JST13/130116JST11
130121-878	5,604	PR2360	532-159-14/532-200-16	121221JST13/130121JST10T11T12
130123-879	6,051	PR2362	532-159-14/532-200-16	121221JST13/130121JST10T11T12
130122-880	5,958	PR2361	532-159-14/532-200-16	121221JST13/130121JST10T11T12
130126-881	5,871	PR2364	532-159-14/532-200-16	121221JST13/130121JST10T11T12
130126-882	5,835	PR2365	532-159-14/532-204-27	121221JST13/130124JST11
130126-883	5,724	PR2366	532-159-14/532-204-27	121221JST13/130124JST11

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Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
130127-884	5,833	PR2367	532-159-14/532-207-14	121221JST13/130125MHT32T33
130129-887	6,225	PR2368	532-191-16/533-5-25	130115JST11/130129JST11T12T10
130129-888	6,018	PR2369	532-191-16/533-6-2	130115JST11/130129JST33T32
130130-889	6,152	PR2371	532-191-16/533-6-2	130115JST11/130129JST33T32
130130-890	5,929	PR2372	532-191-16/533-5-25	130115JST11/130129JST11T12T10
130130-891	6,203	PR2373	532-191-16/533-5-25	130115JST11/130129JST11T12T10
130131-892	6,278	PR2375	532-191-16/533-10-4	130115JST11/130201JST11T10
130131-893	6,099	PR2376	532-191-16/533-9-27	130115JST11/130131JST32T10
130201-894	6,412	PR2377	532-191-16/533-10-4	130115JST11/130131JST11T10
130202-895	5,826	PR2378	532-191-16/533-10-4	130115JST11/130131JST11T10
130202-896	6,230	PR2379	532-191-16/533-12-1	130115JST11/130201JST10T11
130202-897	6,454	PR2380	532-191-16/533-16-14	130115JST11/130204JST10T11T12
130202-898	6,278	PR2381	532-191-16/533-16-14	130115JST11/130204JST10T11T12
130205-899	6,292	PR2384	532-191-16/533-18-2	130115JST11/130205JST11
130209-901	6,141	PR2389	532-191-16/533-20-9	130115JST11/130206JST11
130209-902	6,027	PR2390	532-191-16/533-20-9	130115JST11/130206JST11
130211-903	5,751	PR2395	532-191-16/533-29-22	130115JST11/130211JST12T33
130213-904	6,208	PR2404	532-191-16/533-16-14	130115JST11/130204JST10T11T12
130214-905	6,010	PR2408	532-191-16/533-30-2	130115JST11/130211JST11
130215-906	5,974	PR2411	532-191-16/533-35-16	130115JST11/130214JST33T12
130215-907	6,172	PR2413	532-191-16/533-35-16	130115JST11/130214JST33T12
130216-908	5,816	PR2414	533-16-19/533-30-2	130204JST11/130211JST11
130216-909	5,958	PR2415	533-16-19/533-36-20	130204JST11/130215JST11T32
130216-910	6,053	PR2418	533-16-19/533-34-24	1300204JST11/130214JST10T12
130216-911	5,830	PR2416	533-16-19/533-36-20	1302004JST11/130214JST11T32
130216-912	6,021	PR2417	533-16-19/533-34-24	130204JST11/130214JST10T12
130219-913	6,021	PR2427	533-16-19/533-41-13	130204JST11/130218JST33
130221-914	6,018	PR2436	533-16-19/533-41-13	130204JST11/130218JST33
130221-915	5,920	PR2437	533-16-19/533-45-4	130204JST11/130220JST32
130222-916	5,912	PR2443	533-16-19/533-48-9	130204JST11/130222JST31
130223-917	6,081	PR2444	533-16-19/533-48-9	130204JST11/130222JST31
130223-918	5,661	PR2445	533-16-19/533-48-5	130204JST11/130222JST32
130227-919	5,963	PR2447	533-16-19/533-54-6	130204JST11/130226JST32
130228-920	5,925	PR2449	533-16-19/533-54-6	130204JST11/130226JST32
130309-921	6,157	PR2451	533-16-19/533-68-8	130204JST11/130308JST17
130309-922	6,152	PR2452	533-16-19/533-68-8	130204JST11/130308JST17
130309-923	6,277	PR2453	533-16-19/533-65-10	130204JST11/130306JST17T16
130313-924	6,048	PR2462	533-16-19/533-71-28	130204JST11/130311JST33
130313-925	5,865	PR2463	533-16-19/533-71-28	130204JST11/130311JST33
130314-926	6,149	PR2464	533-16-19/533-73-28	130204JST11/130312JST17
130314-927	6,244	PR2465	533-16-19/533-73-28	130204JST11/130312JST17
130315-928	6,203	PR2467	533-55-13/533-73-28	130227JST17/130312JST17
130315-929	6,167	PR2468	533-55-13/533-73-28	130227JST17/130312JST17
130316-930	6,255	PR2472	533-55-13/533-73-28	130227JST17/130312JST17
130318-931	6,203	PR2473	533-55-13/533-78-28	130227JST17/130315JST33
130318-932	6,140	PR2474	533-55-13/533-85-8	130227JST17/130318JST32
130319-933	6,104	PR2471	533-55-13/533-85-4	130227JST17/130318JST17
130319-934	6,140	PR2475	533-55-13/533-85-4	130227JST17/130318JST17
130320-935	6,214	PR2476	533-55-13/533-85-4	130227JST17/130318JST17
130322-937	6,026	PR2478	533-55-13/533-89-18	130227JST17/130320JST17
130321-936	6,487	PR2477	533-55-13/533-89-18	130227JST17/130320JST17
130325-938	5,776	PR2479	533-55-13/533-96-12	130227JST17/130325JST33
130402-939	5,635	PR2487	533-55-13/533-105-15	130227JST17/130401JST32
130402-940	5,850	PR2488	533-55-13/533-105-15	130227JST17/130401JST32
130405-941	5,547	PR2492	533-55-13/533-111-22	130227JST17/130405JST33
130405-942	5,676	PR2493	533-55-13/533-111-22	130227JST17/130405JST33
130406-943	5,996	PT2494	533-55-13/533-105-10	130227JST17/130401JST31
130406-944	6,175	PR2495	533-55-13/533-105-10	130227JST17/130401JST31
130409-945	6,429	PR2496	533-55-13/533-105-5	130227JST17/130401JST17
130410-946	6,073	PR2497	533-55-13/533-105-5	130227JST17/130401JST17
130410-947	6,214	PR2498	533-55-13/533-105-5	130227JST17/130401JST17
130411-948	6,201	PR2500	533-110-1/533-105-5	130404JST17/130401JST17
130411-949	5,967	PR2499	533-110-1/533-105-5	130404JST17/130401JST17
130412-950	5,918	PR2502	533-110-1/533-116-4/533-115-26	130404JST17/130408JST32/130408JST33

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
130412-951	5,918	PR2503	533-110-1/533-116-4/533-115-26	130404JST17/130408JST32/130408JST33
130415-952	6,182	PR2507	533-110-1/533-116-4/533-115-26	130404JST17/130408JST32/130408JST33
130415-953	5,843	PR2506	533-110-1/533-116-4/533-115-26	130404JST17/130408JST32/130408JST33
130423-954	6,042	PR2509	533-110-1/533-139-4	130404JST17/130422JST17
130424-955	6,231	PR2510	533-110-1/533-139-4	130404JST17/130422JST17
130426-956	6,061	PR2511	533-110-1/533-139-4	130404JST17/130422JST17
130426-957	5,438	PR2515	533-110-1/533-139-4	130404JST17/130422JST17
130426-958	6,045	PR2513	533-110-1/533-139-4	130404JST17/130422JST17
130426-959	6,214	PR2514	533-110-1/533-141-25	130404JST17/130424MHT16
130429-960	5,950	PR2516	533-110-1/533-141-25	130404JST17/130424MHT16
130430-961	6,126	No Pr #	533-110-1/533-141-25	130404JST17/130424MHT16
130501-962	6,029	PR2526	533-110-1/533-141-25	130404JST17/130424MHT16
130502-963	6,061	PR2536	533-110-1/533-141-25	130404JST17/130424MHT16
130506-964	6,282	PR2542	533-110-1/533-155-16	130404JST17/130503JST17
130507-965	6,260	PR2543	533-110-1/533-155-16	130404JST17/130503JST17
130508-966	5,999	PR2544	533-110-1/533-155-16	130404JST17/130503JST17
130509-967	6,169	PR2545	533-110-1/533-155-16	130404JST17/130503JST17
130510-968	5,844	No Pr #	533-149-24/533-155-16	130429JST17/130503JST17
130514-969	5,666	PR2547	533-149-24/533-168-26	130429JST17/130513JST16
130515-970	5,718	PR2548	533-149-24/533-168-26	130429JST17/130513JST16
130516-971	5,883	PR2549	533-149-24/533-168-26	130429JST17/130513JST16
130517-972	6,107	PR2550	533-149-24/533-168-26	130429JST17/130513JST16
130518-973	5,919	PR2551	533-149-24/533-168-26	130429JST17/130513JST16
130523-974	5,720	PR2558	533-149-24/533-180-6	130429JST17/130522JST17
130524-975	5,516	PR2559	533-149-24/533-183-15	130429JST17/130524JST16
130528-976	5,527	PR2560	533-149-24/533-180-6	130429JST17/130522JST17
130528-977	5,599	PR2561	533-149-24/533-183-15	130429JST17/130524JST16
130529-978	5,372	PR2562	533-149-24/533-180-6	130429JST17/130522JST17
130606-979	5,610	PR2567	533-149-24/533-198-4	130429JST17/130604JST16
130607-980	5,512	PR2569	533-149-24/533-198-4	130429JST17/130604JST16
130614-981	5,585	PR2571	533-149-24/533-198-4	130429JST17/130604JST16
130617-982	5,675	PR2572	533-149-24/533-198-4	130429JST17/130604JST16
130618-983	5,721	PR2573	533-149-24/533-198-4	130429JST17/130604JST16
130626-984	5,659	PR2575	533-149-24/537-17-14	130429JST17/130624MH
130626-985	5,371	PR2576	533-149-24/537-17-14	130429JST17/130624MH
130627-986	5,703	PR2577	533-149-24/537-17-14	130429JST17/130624MH
130627-987	5,537	PR2578	533-149-24/537-17-14	130429JST17/130624MH
130628-988	6,032	PR2579	537-17-14/537-17-14	130624MH/130624MH
130628-989	5,884	PR2581	537-17-14/537-17-14	130624MH/130624MH
130701-990	6,307	PR2582	537-17-14/537-17-14	130624MH/130624MH
130701-991	6,185	PR2583	537-17-14/537-21-1	130624MH/130626JST16
130702-992	6,215	PR2584	537-17-14/537-21-1	130624MH/130626JST16
130702-993	6,095	PR2585	537-17-14/537-21-1	130624MH/130626JST16
130703-994	6,021	PR2589	537-17-14/537-21-1	130624MH/130626JST16
130703-995	6,116	PR2590	537-17-14/537-21-1	130624MH/130626JST16
130708-996	4,821	PR2591	537-17-14/537-28-14	130624MH/130702JST36
130709-997	5,587	PR2593	537-17-14/537-28-14	130624MH/130702JST36
130710-998	6,013	PR2594	537-17-14/537-35-18	130624MH/130708JST17
130715-999	6,018	PR2597	537-17-14/537-35-18	130624MH/130708JST17
130715-1000	5,993	PR2598	537-17-14/537-35-18	130624MH/130708JST17
130717-1001	5,931	PR2599	537-17-14/537-35-18	130624MH/130708JST17
130717-1002	5,985	PR2600	537-17-14/537-35-18	130624MH/130708JST17
130718-1003	6,023	PR2607	537-17-14/537-46-5	130624MH/130716JST16
130719-1004	5,974	PR2609	537-17-14/537-46-5	130624MH/130716JST16
130722-1005	5,974	PR2611	537-17-14/537-46-5	130624MH/130716JST16
130723-1006	6,040	PR2612	537-17-14/537-46-5	130624MH/130716JST16
130724-1007	5,841	PR2613	537-17-14/537-46-5	130624MH/130716JST16
130725-1008	6,023	PR2614	537-54-15/537-54-8	130722JST35/130722JST17
130725-1009	5,871	PR2615	537-54-15/537-54-8	130722JST35/130722JST17
130726-1010	5,767	PR2616	537-54-15	130722JST35
130726-1011	5,727	PR2617	537-54-15/537-54-8	130722JST35/130722JST17
130729-1012	5,820	PR2618	537-54-15/537-54-8	130722JST35/130722JST17
130730-1013	5,980	PR2620	537-54-15/537-54-8	130722JST35/130722JST17
130731-1014	5,414	PR2622	537-54-15/537-63-28	130722JST35/130729JST36

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
130801-1015	5,736	PR2623	537-54-15/537-63-28	130722JST35/130729JST36
130802-1016	5,754	PR2624	537-54-15/537-63-28	130722JST35/130729JST36
130808-1017	5,707	PR2627	537-54-15/537-68-11	130722JST35/130802JST16
130809-1018	5,770	PR2629	537-54-15/537-68-11	130722JST35/130802JST16
130809-1019	5,688	PR2630	537-54-15/537-68-11	130722JST35/130802JST16
130815-1020	5,907	PR2631	537-54-15/537-79-27	130722JST35/130813JST17
130815-1021	6,041	PR2632	537-54-15/537-79-27	130722JST35/130813JST17
130816-1022	5,986	PR2635	537-54-15/537-79-27	130722JST35/130813JST17
130816-1023	6,059	PR2636	537-54-15/537-68-11	130722JST35/130802JST16
130819-1024	6,036	PR2638	537-54-15/537-79-27	130722JST35/130813JST17
130828-1025	5,670	PR2643	537-54-15/537-94-11	130722JST35/130826JST16
130829-1026	5,602	PR2647	537-54-15/537-94-11	130722JST35/130826JST16
130830-1027	5,628	PR2650	537-54-15/537-94-11	130722JST35/130826JST16
130903-1028	5,641	PR2651	537-88-14/537-104-9	130821JST16/130902JST17
130904-1029	5,664	PR2652	537-88-14/537-104-9	130821JST16/130902JST17
130906-1030	5,573	PR2653	537-88-14/537-104-9	130821JST16/130902JST17
130906-1031	5,529	PR2654	537-88-14/537-104-9	130821JST16/130902JST17
130909-1032	5,182	PR2655	537-88-14/537-114-8	130821JST16/130909JST10
130910-1033	5,432	PR2656	537-88-14/537-114-8	130821JST16/130909JST10
130911-1034	5,609	PR2657	537-88-14/537-104-9	130821JST16/130902JST17
130924-1035	5,870	PR2667	537-88-14/537-134-16	130821JST16/130923MHT16
130924-1036	5,844	PR2668	537-88-14/537-134-16	130821JST16/130923MHT16
130925-1037	5,805	PR2672	537-88-14/537-134-16	130821JST16/130923MHT16
130927-1038	5,737	PR2674	537-88-14/537-134-16	130821JST16/130923MHT16
130927-1039	5,609	PR2675	537-88-14/537-134-16	130821JST16/130923MHT16
131001-1040	6,024	PR2677	537-88-14/537-143-03	130821JST16/130927MHT17
131001-1041	5,708	PR2679	537-88-14/537-143-03	130821JST16/130927MHT17
131005-1042	5,768	PR2684	537-88-14/537-150-11	130821JST16/131002JST17
131005-1043	5,445	PR2685	537-88-14/537-150-11	130821JST16/131002JST17
131009-1044	5,883	PR2691	537-88-14/537-154-24	130821JST16/131007MHT16
131010-1045	5,956	PR2696	537-88-14/537-159-04	130821JST16/131010MHT17
131011-1046	5,734	PR2700	537-88-14/537-154-24	130821JST16/131007MHT16
131011-1047	5,667	PR2699	537-88-14/537-159-04	130821JST16/131010MHT17
131012-1048	5,682	PR2705	537-156-11/537-154-24	131008JST12/131007MHT16
131012-1049	5,880	PR2703	537-156-11/537-159-04	131008JST12/131010MHT17
131012-1050	5,833	PR2704	537-156-11/537-159-04	131008JST12/131010MHT17
131014-1051	5,532	PR2706	537-156-11/537-154-24	131008JST12/131007MHT16
131015-1052	5,632	PR2710	537-156-11/537-165-6	131008JST12/131015JST17
131017-1053	5,849	PR2716	537-156-11/537-165-6	131008JST12/131015JST17
131018-1054	5,885	PR2719	537-156-11/537-165-6	131008JST12/131015JST17
131021-1057	6,028	PR2721	537-156-11/537-171-21	131008JST12/131021JST16
131021-1058	5,954	PR2722	537-156-11/537-165-6	131008JST12/131015JST17
131022-1059	5,669	PR2723	537-156-11/537-171-21	131008JST12/131021JST16
131023-1060	5,817	PR2724	537-156-11/537-171-21	131008JST12/131021JST16
131025-1061	5,640	PR2726	537-156-11/537-171-21	131008JST12/131021JST12
131026-1062	5,912	PR2730	537-156-11/537-177-19	131008JST12/131025JST17
131029-1063	5,901	PR2734	537-156-11/537-177-19	131008JST12/131025JST17
131028-1064	6,175	PR2735	537-156-11/537-177-19	131008JST12/131025JST17
131030-1065	5,938	PR2738	537-156-11/537-177-19	131008JST12/131025JST17
131030-1066	5,698	PR2739	537-156-11/537-184-9	131008JST12/131030JST13
131031-1067	5,972	PR2741	537-156-11/537-185-16	131008JST12/131031JST16
131031-1068	5,959	PR2742	537-156-11/537-185-16	131008JST12/131031JST16
131106-1069	5,949	PR2743	537-156-11/537-185-16	131008JST12/131031JST16
131106-1070	5,691	PR2744	537-175-10/537-185-16	131024JST10/131031JST16
131108-1071	5,774	PR2745	537-175-10/537-185-16	131024JST10/131031JST16
131108-1072	5,443	PR2746	537-175-10/537-185-16	131024JST10/131031JST16
131113-1073	5,831	PR2747	537-175-10/537-202-16	131024JST10/131113JST17
131115-1074	5,800	PR2748	537-175-10/537-202-16	131024JST10/131113JST17
131118-1075	5,816	PR2749	537-175-10/537-202-16	131024JST10/131113JST17
131119-1076	5,513	PR2754	537-175-10/537-202-16	131024JST10/131113JST17
131120-1077	5,624	PR2757	537-175-10/538-1-5	131024JST10/131120JST16
131122-1078	5,854	PR2762	537-175-10/538-1-5	131024JST10/131120JST16
131122-1079	5,745	PR2763	537-175-10/538-1-5	131024JST10/131120JST16
131210-1080	5,916	PR2767	537-175-10/538-25-17	131024JST10/131210JST16

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
131210-1081	5,911	PR2768	537-175-10/538-25-17	131024JST10/131210JST16
131211-1082	5,947	PR2769	537-175-10/538-26-24	131024JST10/131211JST17
131213-1083	5,797	PR2770	537-175-10/538-25-17	131024JST10/131210JST16
131213-1084	5,658	PR2771	537-175-10/538-25-17	131024JST10/131210JST16
131213-1085	5,776	PR2772	537-175-10/538-26-24	131024JST10/131211JST17
131216-1086	5,440	PR2773	537-175-10/538-26-24	131024JST10/131211JST17
131217-1087	5,492	PR2774	537-175-10/538-26-24	131024JST10/131211JST17
131218-1088	5,443	PR2775	537-175-10/538-26-24	131024JST10/131211JST17
131226-1089	5,753	PR2777	537-175-10/538-40-14	131024JST10/131223JST16
131227-1090	5,658	PR2779	538-32-14/538-42-4	131216JST11/131226JST17
131227-1091	5,720	PR2778	538-32-14/538-42-4	131216JST11/131226JST17
131228-1092	5,728	PR2780	538-32-14/538-40-14	131216JST11/131223JST16
131230-1093	5,612	PR2781	538-32-14/538-40-14	131216JST11/131223JST16
131231-1094	5,787	PR2782	538-32-14/538-46-17	131216JST11/131230JST17
131231-1095	5,576	PR2783	538-32-14/538-40-14	131216JST11/131223JST16
131231-1096	5,310	PR2784	538-32-14/538-46-17	131216JST11/131230JST17
140102-1097	5,635	PR2785	538-32-14/538-46-17	131216JST11/131230JST17
140103-1098	5,292	PR2786	538-32-14/538-46-17	131216JST11/131230JST17
140108-1099	5,638	PR2787	538-32-14/538-55-14	131216JST11/140106JST16
140108-1100	5,656	PR2788	538-32-14/538-55-14	131216JST11/140106JST16
140110-1101	5,772	PR2792	538-32-14/538-55-14	131216JST11/140106JST16
140110-1102	5,761	PR2791	538-32-14/538-55-14	131216JST11/140106JST16
140111-1103	5,772	PR2794	538-32-14/538-59-5	131216JST11/140109JST17
140111-1104	5,697	PR2793	538-32-14/538-59-5	131216JST11/140109JST17
140114-1105	5,785	PR2795	538-32-14/538-64-8	131216JST11/140114JST31
140115-1106	5,867	PR2797	538-32-14/538-59-5	131216JST11/140109JST17
140115-1107	5,408	PR2796	538-32-14/538-64-12	131216JST11/140114JST13
140116-1108	5,847	PR2798	538-32-14/538-59-5	131216JST11/140109JST17
140117-1109	5,867	PR2800	538-32-14/538-59-5	131216JST11/140109JST17
140117-1110	5,866	PR2801	538-59-10/538-68-13	140109JST11/140117JST16
140117-1111	5,899	PR2799	538-59-10/538-68-13	140109JST11/140117JST16
140118-1112	5,779	PR2802	538-59-10/538-68-13	140109JST11/140117JST16
140120-1113	5,593	PR2804	538-59-10/538-68-13	140109JST11/140117JST16
140121-1115	5,700	PR2805	538-59-10/538-68-13	140109JST11/140117JST16
140122-1116	5,585	PR2806	538-59-10/538-68-13	140109JST11/140117JST16
140215-1117	5,608	PR2807	538-59-10/538-76-7	140109JST11/140123JST11
140114-1118	5,552	PR2808	538-59-10/538-82-8	140109JST11/140127JST13
140129-1119	6,050	PR2809	538-59-10/538-81-27	140109JST11/140127JST10
140129-1120	4,644	PR2810	538-59-10/538-81-27	140109JST11/140127JST10
140129-1121	5,057	PR2811	538-59-10/538-82-12	140109JST11/140127JST17
140129-1122	5,300	PR2812	538-59-10/538-82-12	140109JST11/140127JST17
140129-1123	5,442	PR2813	538-59-10/538-82-12	140109JST11/140127JST17
140130-1124	5,476	PR2814	538-59-10/538-82-4	140109JST11/140127JST12
140130-1125	5,473	PR2815	538-59-10/538-82-12	140109JST11/140127JST17
140130-1126	5,376	PR2816	538-59-10/538-82-4	140109JST11/140127JST12
140131-1127	6,101	PR2817	538-59-10/538-82-12	140109JST11/140127JST17
140131-1128	5,088	PR2818	538-59-10/538-86-26	140109JST11/140130MHT11
140201-1129	5,282	PR2821	538-59-10/538-86-26	140109JST11/140130MHT11
140201-1130	5,169	PR2820	538-59-10/538-86-26	140109JST11/140130MHT10
140201-1131	5,585	PR2822	538-59-10/538-86-26	140109JST11/140130MHT10
140205-1132	5,576	No Pr #	538-88-02/538-88-07	140131MHT12/140131MHT17
140205-1133	5,624	No Pr #	538-88-02/538-91-12	140131MHT12/140205JST12
140207-1134	5,659	PR2826	538-88-02/538-88-07	140131MHT12/140131MHT17
140207-1135	5,516	PR2827	538-88-02/538-88-07	140131MHT12/140131MHT17
140208-1136	5,344	PR2828	538-88-02/538-88-07	140131MHT12/140131MHT17
140208-1137	4,616	PR2829	538-88-02/538-88-07	140131MHT12/140131MHT17
140214-1138	5,700	PR2833	538-88-02/538-98-18	140131MHT12/140214JST17
140214-1139	5,791	PR2832	538-88-02/538-98-18	140131MHT12/140214JST17
140220-1140	6,169	PR2834	538-88-02/538-98-18	140131MHT12/140214JST17
140221-1141	5,304	PR2835	538-88-02/538-98-18	140131MHT12/140214JST17
140228-1142	5,824	PR2837	538-88-02/538-110-9	140131MHT12/140227JST13
140314-1143	5,657	PR2857	538-88-02/538-127-22	140131MHT12/140313JST16
140314-1144	5,657	PR2858	538-88-02/538-127-22	140131MHT12/140313JST16
140304-1145	5,910	PR2838	538-88-02/538-114-4	140131MHT12/140303JST12

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
140317-1146	5,279	PR2861	538-88-02/538-127-22	140131MHT12/140313JST16
140318-1147	5,492	PR2862	538-88-02/538-127-22	140131MHT12/140313JST16
140321-1148	5,560	PR2868	538-88-02/538-138-11	140131MHT12/140321MHT17
140324-1149	5,638	PR2870	538-88-02/538-142-9	140131MHT12/140324JST16
140324-1150	5,791	PR2872	538-88-02/538-138-11	140131MHT12/140321MHT17
140325-1151	5,519	PR2874	538-123-15/538-138-11	140310JST13/140321MHT17
140325-1152	5,627	PR2875	538-123-15/538-138-11	140310JST13/140321MHT17
140325-1153	5,713	PR2877	538-88-02/538-142-9	140131MHT12/140324JST16
140326-1154	5,638	PR2878	538-123-15/538-138-11	140310JST13/140321MHT17
140326-1155	5,781	PR2879	538-123-15/538-142-9	140310JST13/140324JST16
140327-1156	5,460	PR2882	538-123-15/538-145-16	140310JST13/140326JST16
140331-1157	5,657	PR2888	538-123-15/538-145-16	140310JST13/140326JST16
140328-1158	5,775	PR2885	538-123-15/538-145-16	140310JST13/140326JST16
140402-1159	5,931	PR2890	538-123-15/538-145-16	140310JST13/140326JST16
140402-1160	5,805	PR2891	538-123-15/538-153-19	140310JST13/140402JST17
140403-1161	5,843	PR2892	538-123-15/538-153-19	140310JST13/140402JST17
140403-1162	5,869	PR2893	538-123-15/538-153-19	140310JST13/140402JST17
140404-1163	5,702	PR2894	538-123-15/538-153-19	140310JST13/140402JST17
140409-1164	5,797	PR2896	538-123-15/538-162-11	140310JST13/140408JST16
140414-1165	5,697	PR2897	538-123-15/538-162-11	140310JST13/140408JST16
140415-1166	5,573	PR2898	538-123-15/538-162-11	140310JST13/140408JST16
140416-1167	5,797	PR2899	538-123-15/538-168-27	140310JST13/140414JST11T13
140416-1168	5,662	PR2900	538-123-15/538-168-27	140310JST13/140414JST11T13
140416-1169	5,414	PR2901	538-123-15/538-171-4	140310JST13/140416JST16
140418-1170	5,675	PR2902	538-123-15/538-169-17	140310JST13/140415JST10
140425-1171	5,826	PR2905	538-168-23/538-178-16	140414JST11/140423JST17
140425-1172	6,152	PR2906	538-123-15/538-178-16	140310JST13/140423JST17
140430-1173	5,595	PR2908	538-168-23/538-186-4	140414JST11/140429JST17
140430-1174	5,719	PR2909	538-168-23/538-186-4	140414JST11/140429JST17
140507-1175	5,576	PR2911	538-168-23/538-194-27	140414JST11/140507JST12
140508-1176	5,813	PR2913	538-168-23/538-195-3	140414JST11/140507JST16
140513-1177	5,826	PR2915	538-168-23/538-195-3	140414JST11/140507JST16
140513-1178	5,818	PR2916	538-168-23/538-195-3	140414JST11/140507JST16
140519-1179	5,853	PR2917	538-168-23/538-201-15	140414JST11/140514JST17
140519-1180	5,878	PR2918	538-168-23/538-201-15	140414JST11/140514JST17
140520-1181	5,937	PR2919	538-168-23/538-201-15	140414JST11/140514JST17
140528-1182	6,066	PR2921	538-168-23/539-8-6	140414JST11/140527JST17
140528-1183	6,002	PR2922	538-168-23/539-8-6	140414JST11/140527JST17
140530-1184	6,007	PR2924	538-168-23/539-8-6	140414JST11/140527JST17
140530-1185	6,080	PR2923	538-168-23/539-11-21	140414JST11/140530JST10
140604-1186	5,888	PR2925	538-168-23/539-17-13	140414JST11/140603JST17
140604-1187	5,880	PR2926	538-168-23/539-17-13	140414JST11/140603JST17
140605-1188	5,950	PR2927	538-168-23/539-17-13	140414JST11/140603JST17
140606-1189	6,188	PR2929	538-168-23/539-17-13	140414JST11/140603JST17
140611-1190	5,993	PR2934	538-168-23/538-25-18	140414JST11/140610JST17
140611-1191	5,999	PR2935	538-168-23/539-25-18	140414JST11/140610JST17
140619-1192	6,004	PR2938	539-3-28/539-35-27	140523JST11/140619JST17
140620-1193	5,770	PR2940	539-3-28/539-35-27	140523JST11/140619JST17
140620-1194	5,964	PR2941	539-3-28/539-35-27	140523JST11/140619JST17
140623-1195	5,993	PR2942	539-3-28/539-35-27	140523JST11/140619JST17
140703-1196	5,907	PR2947	539-3-28/539-54-24	140523JST11/140702JST11
140703-1197	6,225	PR2948	539-3-28/539-54-24	140523JST11/140702JST11
140616-1198	5,983	PR2936	539-3-28/539-25-18	140523JST11/140610JST17
140707-1199	6,126	PR2949	539-3-28/539-35-27	140523JST11/140619JST17
140707-1200	6,107	PR2950	539-3-28/539-35-27	140523JST11/140619JST17
140707-1201	6,147	PR2951	539-3-28/539-35-27	140523JST11/140619JST17
140710-1202	5,692	PR2954	539-3-28/539-61-21	140523JST11/140708JST16
140714-1203	5,751	PR2956	539-3-28/539-68-22	140523JST11/140714JST16
140716-1204	5,869	PR2958	539-3-28/539-68-22	140523JST11/140714JST16
140717-1205	6,088	PR2962	539-3-28/539-68-22	140523JST11/140714JST16
140717-1206	5,721	PR2964	539-3-28/539-71-7	140523JST11/140716JST17
140718-1207	6,053	PR2967	539-3-28/539-68-22	140523JST11/140714JST16
140721-1208	6,090	PR2968	539-3-28/539-77-16	140523JST11/140721JST16
140721-1209	5,802	PR2969	539-3-28/539-77-16	140523JST11/140721JST16

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
140722-1210	5,843	PR2971	539-3-28/539-77-16	140523JST11/140721JST16
140723-1211	5,759	PR2972	539-3-28/539-77-16	140523JST11/140721JST16
140723-1212	4,153	PR2973	539-70-4/539-78-27	140715JST11/140722JST11
140723-1213	5,727	PR2976	539-70-4/539-80-19	140715JST11/140723JST16
140726-1214	5,605	PR2977	539-70-4/539-80-19	140715JST11/140723JST16
140726-1215	5,837	PR2978	539-70-4/539-80-19	140715JST11/140723JST16
140726-1216	5,627	PR2979	539-70-4/539-80-19	140715JST11/140723JST16
140726-1217	5,772	PR2980	539-70-4/539-80-19	140715JST11/140723JST16
140726-1218	5,746	PR2981	539-70-4/539-71-7	140715JST11/140716JST17
140726-1219	5,740	PR2982	539-70-4/539-71-7	140715JST11/140716JST17
140730-1220	6,066	PR2983	539-70-4/539-89-3	140715JST11/140729JST17
140730-1221	5,791	PR2984	539-70-4/539-89-3	140715JST11/140729JST17
140730-1222	5,729	PR2985	539-70-4/539-88-23	140715JST11/140729JST11
140801-1223	5,791	PR2986	539-70-4/539-88-27	140715JST11/140729JST12
140801-1224	5,578	PR2987	539-70-4/539-88-27	140715JST11/140729JST12
140801-1225	5,538	PR2988	539-70-4/539-91-26	140715JST11/140731JST10
140801-1226	5,686	PR2989	539-70-4/539-91-12	140715JST11/140731JST13
140808-1227	5,357	PR2990	539-70-4/539-101-10	140715JST11/140807JST13
140808-1228	5,948	PR2991	539-70-4/539-101-16	140715JST11/140807JST16
140808-1229	5,446	PR2992	539-70-4/539-101-16	140715JST11/140807JST16
140809-1230	5,632	PR2993	539-70-4/539-103-6	140715JST11/140808JST17
140809-1231	5,600	PR2994	539-90-10/539-103-6	140730JST13/140808JST17
140809-1232	5,452	PR2995	539-90-10/539-103-6	140730JST13/140808JST17
140809-1233	5,387	PR2996	539-70-4/539-101-16	140715JST11/140807JST16
140811-1234	5,756	PR2998	539-103-10/539-90-10	140730JST13/140808JST36
140811-1235	5,619	PR2999	539-103-10/539-90-10	140730JST13/140808JST36
140812-1236	5,880	PR3000	539-103-10/539-90-10	140730JST13/140808JST36
140819-1237	5,365	PR3011	539-90-10/539-113-20	140730JST13/140818JST12
140820-1238	5,578	PR3012	539-90-10/539-113-20	140730JST13/140818JST12
140820-1239	5,290	PR3013	539-90-10/539-115-10	140730JST13/140819JST10
140820-1240	5,605	PR3014	539-90-10/539-115-10	140730JST13/140819JST10
140821-1241	5,751	PR3015	539-90-10/539-115-6	140730JST13/140819JST16
140821-1242	5,581	PR3016	539-90-10/539-115-6	140730JST13/140819JST16
140822-1243	6,020	PR3018	539-90-10/539-115-6	140730JST13/140819JST16
140822-1244	5,802	PR3019	539-90-10/539-115-6	140730JST13/140819JST16
140823-1245	5,640	PR3020	539-90-10/539-115-6	140730JST13/140819JST16
140823-1246	6,174	PR3021	539-90-10/539-119-4	140730JST13/140822JST17
140825-1247	5,702	PR3022	539-90-10/539-119-4	140730JST13/140822JST17
140825-1248	5,907	PR3023	539-90-10/539-119-4	140730JST13/140822JST17
140826-1249	5,813	PR3026	539-90-10/539-119-4	140730JST13/140822JST17
140828-1250	5,522	PR3031	539-90-10/539-127-5	140730JST13/140827JST16
140828-1251	6,099	PR3032	539-90-10/539-127-5	140730JST13/140827JST16
140829-1252	5,867	PR3036	539-90-10/539-127-5	140730JST13/140827JST16
140904-1253	5,714	PR3040	539-125-24/539-127-5	140826JST11/140827JST16
140911-1254	5,856	PR3047	539-125-24/539-136-18	140826JST11/140903JST17
140911-1255	5,923	PR3048	539-125-24/539-136-18	140826JST11/140903JST17
140912-1256	5,921	PR3049	539-125-24/539-146-16	140826JST11/140911JST11
140917-1257	5,781	PR3051	539-125-24/539-153-5	140826JST11/140916JST16
140917-1258	5,983	PR3052	539-125-24/539-153-5	140826JST11/140916JST16
140918-1259	5,560	PR3054	539-125-24/539-155-4	140826JST11/140917JST11
140918-1260	5,856	PR3055	539-125-24/539-153-5	140826JST11/140916JST16
140918-1261	5,686	PR3056	539-125-24/539-154-28	140826JST11/140917JST10
140919-1262	5,945	PR3057	539-125-24/539-156-19	140826JST11/140918JST13
140919-1263	5,781	PR3058	539-125-24/539-156-19	140826JST11/140918JST13
140924-1264	5,859	PR3063	539-125-24/539-164-19	140826JST11/140923JST11
140930-1265	5,934	PR3082	539-125-24/539-173-21	140826JST11/140929JST16
141007-1266	5,104	PR3083	539-125-24/539-183-14	140826JST11/141006JST16
141013-1267	5,786	PR3084	539-125-24/539-186-23	140826JST11/141009JST16
141013-1268	5,646	PR3085	539-125-24/539-186-23	140826JST11/141009JST16
141014-1269	5,808	PR3086	539-125-24/539-192-10	140826JST11/141014JST11
141022-1270	5,929	PR3088	539-125-24/539-200-14	140826JST11/141021JST16
141022-1271	5,972	PR3089	539-125-24/539-200-14	140826JST11/141021JST16
141028-1272	6,169	PR3091	539-125-24/539-202-26	140826JST11/141023JST16
141028-1273	5,810	PR3092	539-179-24/542-1-27	141003JST13/141028JST17

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
141028-1274	5,737	PR3093	539-179-24/542-1-27	141003JST13/141028JST17
141028-1275	6,150	PR3094	539-179-24/539-202-26	141003JST13/141023JST16
141029-1276	5,872	PR3095	539-179-24/542-1-27	141003JST13/141028JST17
141029-1277	5,692	PR3096	539-179-24/539-202-26	141003JST13/141023JST16
141029-1278	5,605	PR3097	539-179-24/539-202-26	141003JST13/141023JST16
141029-1279	5,905	PR3098	539-179-24/542-1-27	141003JST13/141028JST17
141030-1280	5,646	PR3101	539-179-24/539-202-26	141003JST13/141023JST16
141030-1281	5,578	PR3102	539-179-24/542-5-24	141003JST13/141030JST16
141031-1282	5,689	PR3104	539-179-24/542-1-27	141003JST13/141028JST17
141031-1283	5,737	PR3105	539-179-24/542-13-7	141003JST13/141031JST17
141114-1284	5,910	PR3106	539-179-24/542-25-13	141003JST13/141112JST12
141117-1285	6,061	PR3108	539-179-24/542-32-28	141003JST13/141117JST17
141117-1286	5,546	PR3109	539-179-24/542-32-28	141003JST13/141117JST17
141118-1287	5,999	PR3110	539-179-24/542-32-28	141003JST13/141117JST17
141118-1288	5,840	PR3111	539-179-24/542-32-28	141003JST13/141117JST17
141119-1289	5,751	PR3112	539-179-24/542-33-26	141003JST13/141118JST13
141119-1290	5,651	PR3113	539-179-24/542-32-28	141003JST13/141117JST17
141125-1291	6,182	PR3115	539-179-24/542-41-5	141003JST13/141124JST17
141125-1292	6,128	PR3116	539-179-24/542-41-5	141003JST13/141124JST17
141212-1293	5,991	PR3119	542-2-79/542-57-18	141113JST11/141211JST17
141212-1294	5,818	PR3120	542-27-9/542-57-18	141113JST11/141211JST17
141212-1295	5,864	PR3121	542-27-9/542-57-18	141113JST11/141211JST17
141224-1296	5,869	PR3122	542-27-9/542-73-21	141113JST11/141222JST17
141224-1297	5,638	PR3123	542-27-9/542-73-21	141113JST11/141222JST17
141224-1298	5,840	PR3124	542-27-9/542-73-21	141113JST11/141222JST17
150102-1299	5,589	PR3125	542-27-9/542-80-25	141113JST11/141229JST16
150102-1300	5,816	PR3126	542-27-9/542-80-25	141113JST11/141229JST16
150102-1301	5,940	PR3127	542-27-9/542-80-25	141113JST11/141229JST16
150107-1302	5,813	PR3128	542-27-9/542-94-13	141113JST11/150107JST16
150108-1303	5,993	PR3130	542-27-9/542-94-13	141113JST11/150107JST16
150109-1304	6,109	PR3131	542-27-9/542-94-13	141113JST11/150107JST16
150115-1305	5,471	PR3132	542-27-9/542-105-13	141113JST11/150115JST16
150115-1306	5,657	PR3133	542-27-9/542-105-13	141113JST11/150115JST16
150116-1307	5,816	PR3134	542-27-9/542-105-13	141113JST11/150115JST16
150116-1308	5,878	PR3135	542-27-9/542-105-13	141113JST11/150115JST16
150124-1309	6,271	PR3138	542-27-9/542-114-2	141113JST11/150122JST16
150124-1310	5,686	PR3139	542-27-9/542-114-2	141113JST11/150122JST16
150126-1311	5,942	PR3140	542-27-9/542-114-2	141113JST11/150122JST16
150126-1312	6,002	PR3143	542-27-9/542-114-2	141113JST11/150122JST16
150129-1313	5,818	PR3158	542-107-8/542-121-28	150116JST13/150127JST17
150129-1314	5,746	PR3160	542-107-8/542-121-28	150116JST13/150127JST17
150130-1315	5,716	PR3163	542-107-8/542-121-28	150116JST13/150127JST17
150130-1316	5,805	PR3164	542-107-8/542-121-28	150116JST13/150127JST17
150213-1317	5,791	PR3190	542-107-8/542-148-08	150116JST13/150213JAGT17
150213-1318	5,735	PR3191	542-107-8/542-148-08	150116JST13/150213JAGT17
150213-1319	5,905	PR3192	542-107-8/542-148-08	150116JST13/150213JAGT17
150213-1320	5,721	PR3193	542-107-8/542-148-08	150116JST13/150213JAGT17
150216-1321	5,430	PR3194	542-107-8/542-152-25	150116JST13/150216JAGT16
150216-1322	5,395	PR3195	542-107-8/542-152-25	150116JST13/150216JAGT16
150220-1323	5,907	PR3196	542-107-8/542-158-03	150116JST13/150219JAGT17
150220-1324	5,748	PR3197	542-107-8/542-152-25	150116JST13/150216JAGT16
150220-1325	5,619	PR3198	542-107-8/542-152-25	150116JST13/150216JAGT16
150220-1326	5,899	PR3199	542-107-8/542-158-03	150116JST13/150219JAGT17
150221-1327	5,729	PR3200	542-107-8/542-158-03	150116JST13/150219JAGT17
150221-1328	5,721	PR3201	542-107-8/542-158-03	150116JST13/150219JAGT17
150225-1329	5,492	PR3203	542-107-8/542-158-03	150116JST13/150219JAGT17
150226-1330	5,789	PR3204	542-107-8/542-167-25	150116JST13/150225JST17
150227-1331	5,743	PR3205	542-107-8/542-167-25	150116JST13/150225JST17
150303-1332	5,702	No Pr #	542-107-8/542-173-16	150116JST13/150302JST16
150304-1333	5,799	No Pr #	542-163-24/542-173-16	150223JST12/150302JST16
150305-1334	5,910	PR3209	542-163-24/542-173-16	150223JST12/150302JST16
150311-1335	5,940	PR3212	542-163-24/542-182-28	150223JST12/150310-O-0880T17
150311-1336	5,816	PR3213	542-163-24/542-182-28	150223JST12/150310-O-0880T17
150312-1337	4,837	PR3214	542-163-24/542-182-28	150223JST12/150310-O-0880T17

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
150312-1338	5,684	PR3215	542-163-24/542-183-27	150223JST12/150311-O-0881T16
150313-1339	6,023	PR3217	542-163-24/542-183-27	150223JST12/150311-O-0881T16
150318-1340	5,584	No Pr #	542-163-24/542-193-21	150223JST12/150317-O-0883
150318-1341	5,748	No Pr #	542-163-24/542-191-27	150223JST12/150316-O-0882
150318-1342	5,797	PR3218	542-163-24/542-191-27	150223JST12/150316-O-0882
150318-1343	5,527	PR3219	542-163-24/542-193-21	150223JST12/150316-O-0883
150318-1344	5,592	PR3220	542-163-24/542-193-21	150223JST12/150317-O-0883
150319-1345	5,977	PR3226	542-163-24/542-191-27	150223JST12/150316-O-0882
150325-1346	5,945	PR3233	542-162-24/542-207-8	150223JST12/150324JST16
150325-1347	6,077	PR3235	542-163-24/542-207-8	150223JST12/150324JST16
150326-1348	5,643	No Pr #	542-163-24/542-207-8	150223JST12/150324JST16
150326-1349	6,411	PR3237	542-163-24/542-207-8	150223JST12/150324JST16
150326-1350	5,635	PR3238	542-163-24/542-207-8	150223JST12/150324JST16
150331-1351	5,918	PR3242	542-163-24/542-193-21	150223JST12/150317-O-0883
150402-1352	6,085	PR3243	543-3-16/543-9-19	150326JST12/150330JST16
150402-1353	6,659	PR3244	543-3-16/543-9-19	150326JST12/150330JST16
150402-1354	6,223	PR3246	543-3-16/543-9-19	150326JST12/150330JST16
150403-1355	6,196	PR3247	542-163-24/543-9-19	150223JST12/150330JST16
150403-1356	6,530	PR3248	543-3-16/543-9-19	150326JST12/150330JST16
150407-1357	6,117	PR3250	543-3-16/543-19-12	150326JST12/150406JST17
150407-1358	6,347	PR3251	543-3-16/543-19-12	150326JST12/150406JST17
150407-1359	6,293	PR3252	543-3-16/543-19-12	150326JST12/150406JST17
150407-1360	5,915	PR3253	543-3-16/543-19-12	150326JST12/150406JST17
150409-1361	6,198	PR3256	543-3-16/543-19-12	150326JST12/150406JST17
150416-1362	6,010	PR3257	543-3-16/543-33-19	150326JST12/150416-O-0891
150416-1363	6,058	PR3258	543-3-16/543-33-19	150326JST12/150416-O-0891
150417-1364	6,196	PR3259	543-3-16/543-33-19	150326JST12/150416-O-0891
150417-1365	6,161	PR3260	543-3-16/543-33-19	150326JST12/150416-O-0891
150418-1366	6,557	PR3261	543-3-16/543-33-19	150326JST12/150416-O-0891
150420-1367	6,193	PR3262	543-3-16/543-35-23	150326JST12/150417JST11
150420-1368	6,147	PR3263	543-3-16/543-35-23	150326JST12/150417JST11
150429-1369	6,376	PR3270	543-3-16/543-52-9	150326JST12/150428JST17
150429-1370	6,155	PR3271	543-3-16/543-52-9	150326JST12/150428JST17
150429-1371	6,090	PR3273	543-25-12/543-52-9	150410JST13/150428JST17
150430-1372	6,042	PR3274	543-3-16/543-52-13	150326JST12/150428JST16
150430-1373	6,479	PR3275	543-3-16/543-52-13	150326JST12/150428JST16
150501-1374	6,274	PR3276	543-25-12/543-52-13	150410JST13/150428JST16
150501-1375	6,352	PR3277	543-25-12/543-52-9	150410JST13/150428JST17
150501-1376	6,352	PR3278	543-25-12/543-52-9	150410JST13/150428JST16
150502-1377	6,193	PR3279	543-25-12/543-58-13	150410JST13/150501JST16
150502-1378	6,514	PR3280	543-25-12/543-58-13	150410JST13/150501JST16
150502-1379	5,934	PR3281	543-25-12/543-58-13	150410JST13/150501JST16
150502-1380	5,417	PR3282	543-25-12/543-58-13	150410JST13/150501JST16
150513-1381	6,101	PR3317	543-25-12/543-72-4	150410JST13/150511JST16
150513-1382	6,152	PR3316	543-25-12/543-72-4	150410JST13/150511JST16
150513-1383	6,201	PR3315	543-25-12/543-72-7	150410JST13/150511JST17
150513-1384	5,940	PR3314	543-25-12/543-72-7	150410JST13/150511JST17
150513-1385	6,082	PR3313	543-25-12/543-72-7	150410JST13/150511JST17
150513-1386	6,034	PR3312	543-25-12/543-72-7	150410JST13/150511JST17
150514-1387	6,371	PR3319	543-25-12/543-72-4	150410JST13/150511JST16
150514-1388	6,220	PR3320	543-25-12/543-72-4	150410JST13/150511JST16
150515-1389	6,117	PR3318	543-25-12/543-72-7	150410JST13/150511JST17
150515-1390	6,109	PR3322	543-25-12/543-72-4	150410JST13/150511JST16
150526-1391	6,303	PR3329	543-25-12/543-95-16	150410JST13/150526JST16
150526-1392	6,276	PR3330	543-25-12/543-95-16	150410JST13/150526JST16
150603-1393	6,740	PR3331	543-74-5/543-104-8	150512JST11/150602JST16
150603-1394	6,131	PR3332	543-74-5/543-104-8	150512JST11/150602JST16
150603-1395	6,355	PR3333	543-74-5/543-104-8	150512JST11/150602JST16
150604-1396	6,099	PR3334	543-74-5/543-106-7	150512JST11/150604JST17
150604-1397	6,061	PR3335	543-74-5/543-104-8	150512JST11/150602JST16
150604-1398	6,123	PR3336	543-74-5/543-104-8	150512JST11/150602JST16
150606-1399	6,085	PR3337	543-74-5/543-108-1	150512JST11/150605JST16
150606-1400	5,996	PR3338	543-74-5/543-108-1	150512JST11/150605JST16
150606-1401	6,198	PR3339	543-74-5/543-108-1	150512JST11/150605JST16

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
150608-1402	6,161	PR3340	543-74-5/543-108-1	150512JST11/150605JST16
150608-1403	6,206	PR3341	543-74-5/543-108-1	150512JST11/150605JST16
150615-1404	6,565	PR3342	543-74-5/543-121-5	150512JST11/150612JST17
150615-1405	6,090	PR3343	543-74-5/543-121-5	150512JST11/150612JST17
150615-1406	5,899	PR3344	543-74-5/543-121-5	150512JST11/150612JST17
150618-1407	6,506	PR3347	543-74-5/543-121-5	150512JST11/150612JST17
150618-1408	5,985	PR3348	543-74-5/543-121-5	150512JST11/150612JST17
150620-1409	6,064	PR3352	543-74-5/543-121-5	150512JST11/150612JST17
150623-1410	6,088	PR3357	543-74-5/543-137-16	150512JST11/150623JST11
150623-1411	6,252	PR3359	543-74-5/543-137-16	150512JST11/150623JST11
150630-1412	6,258	PR3361	543-74-5/543-146-14	150512JST11/150629MHT16/543-146-14
150630-1413	6,241	PR3362	543-128-24/543-146-14	150617JST12/150629MHT16/543-146-14
150630-1414	6,217	PR3363	543-128-24/543-146-14	150617JST12/150629MHT16/543-146-14
150702-1415	6,015	PR3364	543-128-24/543-146-14	150617JST12/150629MHT16/543-146-14
150702-1416	5,972	PR3365	543-128-24/543-146-14	150617JST12/150629MHT16/543-146-14
150703-1417	6,093	PR3366	543-128-24/543-140-15	150617JST12/150625JST17
150703-1418	6,196	PR3367	543-128-24/543-140-15	150617JST12/150625JST17
150707-1419	6,179	PR3370	543-128-24/543-155-14	150617JST12/150706JST16/543-155-14
150708-1420	6,099	PR3371	543-128-24/543-155-14	150617JST12/150706JST16/543-155-14
150708-1421	6,395	PR3372	543-128-24/543-155-14	150617JST12/150706JST16/543-155-14
150709-1422	6,155	PR3373	543-128-24/543-159-27	150617JST12/150709JST17/543-159-27
150709-1423	5,996	PR3374	543-128-24/543-159-27	150617JST12/150709JST17/543-159-27
150709-1424	6,193	PR3375	543-128-24/543-155-14	150617JST12/150706JST16/543-155-14
150709-1425	6,225	PR3376	543-128-24/543-155-14	150617JST12/150706JST16/543-155-14
150710-1426	6,174	PR3377	543-128-24/543-159-24	150617JST12/150709JST17/543-159-27
150710-1427	6,363	PR3378	543-128-24/543-159-27	150617JST12/150709JST17/543-159-27
150721-1428	5,786	PR3379	543-128-24/543-171-16	150617JST12/543-171-16/150717JST16
150721-1429	6,155	PR3380	543-128-24/543-171-16	150617JST12/543-171-16/150717JST16
150721-1430	6,233	PR3381	543-128-24/543-171-16	150617JST12/543-171-16/150717JST16
150722-1431	6,400	PR3382	543-128-24/543-171-16	150617JST12/543-171-16/150717JST16
150722-1432	5,810	PR3383	543-128-24/543-171-16	150617JST12/543-171-16/150717JST16
150723-1433	6,002	PR3384	543-166-19/543-178-18	150713JST12/543-178-18/150722JST17
150723-1434	6,117	PR3385	543-166-19/543-178-18	150713JST12/543-178-18/150722JST17
150727-1435	6,198	PR3386	543-166-19/543-178-18	150713JST12/543-178-18/150722JST17
150727-1436	6,282	PR3387	543-166-19/543-178-18	150713JST12/543-178-18/150722JST17
150728-1437	6,314	PR3388	543-166-19/543-188-23	150713JST12/543-188-23/150728JST16
150728-1438	6,225	PR3389	543-166-19/543-188-23	150713JST12/543-188-23/150728JST16
150731-1439	6,166	PR3390	543-166-19/543-191-5	150713JST12/543-191-5/150729JST17
150731-1440	5,950	PR3391	543-166-19/543-191-5	150713JST12/543-191-5/150729JST17
150801-1441	6,336	PR3392	543-166-19/543-188-23	150713JST12/543-188-23/150728JST16
150801-1442	6,414	PR3393	543-166-19/543-188-23	150713JST12/543-188-23/150728JST16
150801-1443	6,460	PR3394	543-166-19/543-191-5	150713JST12/543-191-5/150729JST17
150801-1444	6,306	PR3395	543-166-19/543-191-5	150713JST12/543-191-5/150729JST17
150806-1445	6,347	PR3396	543-166-19/543-201-19	150713JST12/543-201-19/150815MHT17
150806-1446	5,999	PR3397	543-166-19/543-201-19	150713JST12/543-201-19/150815MHT17
150807-1447	6,867	PR3398	543-166-19/543-201-19	150713JST12/543-201-19/150815MHT17
150807-1448	5,972	PR3399	543-166-19/543-201-19	150713JST12/543-201-19/150815MHT17
150812-1449	5,934	PR3400	543-166-19/544-04-20	150713JST12/544-04-20/150812MHT16
150812-1450	6,039	PR3401	543-166-19/544-04-20	150713JST12/544-04-20/150812MHT16
150813-1451	6,322	PR3404	543-166-19/544-04-20	150713JST12/544-04-20/150812MHT17
150813-1452	6,309	PR3405	543-166-19/544-04-20	150713JST12/544-04-20/150812MHT16
150813-1453	6,190	PR3402	544-3-7/544-04-20	150811JST11/544-3-7/544-04-20/150812MHT16
150813-1454	5,880	PR3403	544-3-7/544-04-20	150811JST11/544-3-7/544-04-20/150812MHT16
150814-1455	6,163	PR3406	544-3-7/544-04-20	150811JST11/544-3-7/544-04-20/150812MHT17
150814-1456	6,107	PR3407	544-3-7/544-04-20	150811JST11/544-3-7/544-04-20/150812MHT17
150814-1457	6,147	PR3408	544-3-7/544-04-20	150811JST11/544-3-7/544-04-20/150812MHT17
150818-1458	6,002	PR3409	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT17
150818-1459	5,969	PR3410	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT17
150820-1460	6,050	PR3413	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT16
150821-1461	6,522	PR3414	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT17
150821-1462	5,926	PR3415	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT16
150821-1463	6,320	PR3416	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT17
150821-1464	6,503	PR3417	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT16
150822-1465	6,471	PR3418	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT17

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
150826-1466	6,419	PR3419	544-3-7/544-22-19	150811JST11/544-3-7/150825JST17/544-22-19
150827-1467	6,398	PR3420	544-3-7/544-22-19	150811JST11/544-3-7/150825JST17/544-22-19
150827-1468	6,236	PR3422	544-3-7/544-22-19	150811JST11/544-3-7/150825JST17/544-22-19
150828-1469	5,896	PR3425	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT16
150828-1470	5,759	PR3426	544-3-7/544-13-06	150811JST11/544-3-7/544-13-06/150818MHT16
150829-1471	6,425	PR3427	544-3-7/544-22-19	150811JST11/544-3-7/150825JST17/544-22-19
150829-1472	6,471	PR3428	544-3-7/544-22-19	150811JST11/544-3-7/150825JST17/544-22-19
150903-1473	6,276	PR3431	544-14-26/544-31-9	150819-O-T13/544-14-26/544-31-9/150902JST16
150903-1474	5,810	PR3432	544-14-26/544-31-9	150819-O-T13/544-14-26/544-31-9/150902JST16
150904-1475	6,589	PR3433	544-14-26/544-31-9	150819-O-T13/544-14-26/544-31-9/150902JST16
150904-1476	6,072	PR3434	544-14-26/544-31-9	150819-O-T13/544-14-26/544-31-9/150902JST16
150904-1477	5,783	PR3435	544-14-26/544-31-9	150819-O-T13/544-14-26/544-31-9/150902JST16
150910-1478	6,745	PR3438	544-14-26/544-42-19	150819-O-T13/544-14-26/544-42-19/150910JST16
150911-1479	6,174	PR3439	544-14-26/544-42-19	150819-O-T13/544-14-26/544-42-19/150910JST16
150911-1480	6,109	PR3440	544-14-26/544-42-19	150819-O-T13/544-14-26/544-42-19/150910JST16
150911-1481	6,169	PR3441	544-14-26/544-42-19	150819-O-T13/544-14-26/544-42-19/150910JST16
150912-1482	6,212	PR3444	544-14-26/544-42-19	150819-O-T13/544-14-26/544-42-19/150910JST16
150912-1483	5,977	PR3445	544-14-26/544-42-19	150819-O-T13/544-14-26/544-42-19/150910JST16
150922-1484	6,365	PR3452	544-14-26/544-53-27	150819-O-T13/544-14-26/544-53-27/150922JST17
150923-1485	6,252	PR3455	544-14-26/544-53-27	150819-O-T13/544-14-26/544-53-27/150922JST17
150923-1486	6,481	PR3456	544-14-26/544-53-27	150819-O-T13/544-14-26/544-53-27/150922JST17
150923-1487	5,859	PR3457	544-14-26/544-53-27	150819-O-T13/544-14-26/544-53-27/150922JST17
150929-1488	6,252	PR3464	544-14-26/544-55-25	150819-O-T13/544-14-26/544-55-25/150923JST16
150929-1489	6,015	PR3465	544-14-26/544-55-25	150819-O-T13/544-14-26/544-55-25/150923JST16
150929-1490	6,535	PR3467	544-14-26/544-55-25	150819-O-T13/544-14-26/544-55-25/150923JST16
151001-1491	6,371	PR3468	544-14-26/544-66-19	150819-O-T13/544-14-26/544-66-19/151001JST17
151002-1492	6,306	PR3471	544-14-26/544-66-19	150819-O-T13/544-14-26/544-66-19/151001JST17
151003-1493	6,198	PR3473	544-44-20/544-66-19	150914JST10/544-44-20/544-16-19/151001JST17
151005-1494	6,206	PR3474	544-44-20/544-55-25	150914JST10/544-44-20/544-55-25/150923JST16
151006-1495	6,303	PR3475	544-44-20/544-55-25	150914JST10/544-44-20/544-55-25/150923JST16
151006-1496	6,336	PR3476	544-44-20/544-72-4	150914JST10/544-44-20/544-72-4/151006JST17
151008-1497	6,403	PR3481	544-44-20/544-73-8	150914JST10/544-44-20/544-73-8/151007JST16
151008-1498	6,373	PR3482	544-44-20/544-72-4	150914JST10/544-44-20/544-72-4/151006JST17
151009-1499	6,532	PR3490	544-44-20/544-73-8	150914JST10/544-44-20/544-73-8/151007JST16
151009-1500	6,209	PR3491	544-44-20/544-73-8	150914JST10/544-44-20/544-73-8/151007JST16
151010-1501	6,228	PR3492	544-44-20/544-72-4	150914JST10/544-44-20/544-72-4/151006JST17
151010-1502	6,411	PR3493	544-44-20/544-72-4	150914JST10/544-44-20/544-72-4/151006JST17
151012-1503	6,045	PR3499	544-44-20/544-72-4	150914JST10/544-44-20/544-72-4/151006JST17
151012-1504	6,147	PR3500	544-44-20/544-73-8	150914JST10/544-44-20/544-73-8/151007JST16
151016-1505	6,182	PR3526	544-44-20/544-77-21	150914JST10/544-44-20/544-77-21/151015JST16
151016-1506	6,250	PR3527	544-44-20/544-77-21	150914JST10/544-44-20/544-77-21/151015JST16
151017-1507	6,492	PR3536	544-44-20/544-77-21	150914JST10/544-44-20/544-77-21/151015JST16
151017-1508	6,559	PR3537	544-44-20/544-77-21	150914JST10/544-44-20/544-77-21/151015JST16
151022-1509	6,007	PR3551	544-44-20/544-84-20	150914JST10/544-44-20/544-84-20/151020MHT16
151022-1510	6,530	PR3552	544-44-20/544-84-20	150914JST10/544-44-20/544-84-20/151020MHT16
151023-1511	5,867	PR3553	544-44-20/544-84-20	150914JST10/544-44-20/544-84-20/151020MHT16
151023-1512	6,702	PR3555	544-44-20/544-84-20	150914JST10/544-44-20/544-84-20/151020MHT16
151023-1513	6,441	PR3556	544-78-26/544-84-20	151016JST12/544-78-26/544-84-20/151020MHT17
151023-1514	6,268	PR3557	544-78-26/544-84-20	151016JST12/544-78-26/544-84-20/151020MHT17
151026-1515	6,233	PR3558	544-78-26/544-84-20	151016JST12/544-78-26/544-84-20/151020MHT17
151026-1516	6,578	PR3559	544-78-26/544-84-20	151016JST12/544-78-26/544-84-20/151020MHT17
151027-1517	6,185	PR3560	544-78-26/544-84-20	151016JST12/544-78-26/544-84-20/151020MHT17
151027-1518	6,608	PR3562	544-78-26/544-91-25	151016JST12/544-78-26/544-91-25/151026JST16
151029-1519	6,349	PR3579	544-78-26/544-91-25	151016JST12/544-78-26/544-91-25/151026JST16
151029-1520	6,276	PR3581	544-78-26/544-91-25	151016JST12/544-78-26/544-91-25/151026JST16
151030-1521	6,373	PR3585	544-78-26/544-91-25	151016JST12/544-78-26/544-91-25/151026JST16
151031-1522	6,805	PR3586	544-78-26/544-91-25	151016JST12/544-78-26/544-91-25/151026JST16
151106-1523	6,166	PR3588	544-78-26/544-105-17	151016JST12/544-78-26/544-105-17/151105JST16
151106-1524	6,023	PR3589	544-78-26/544-105-17	151016JST12/544-78-26/544-105-17/151105JST16
151106-1525	6,169	PR3590	544-78-26/544-105-17	151016JST12/544-78-26/544-105-17/151105JST16
151107-1526	6,026	PR3591	544-78-26/544-105-17	151016JST12/544-78-26/544-105-17/151105JST16
151112-1527	6,225	PR3593	544-78-26/544-113-18	151016JST12/544-78-26/544-113-18/151112JST17
151113-1528	6,287	PR3595	544-78-26/544-113-18	151016JST12/544-78-26/544-113-18/151112JST17
151113-1529	6,565	PR3596	544-78-26/544-113-18	151016JST12/544-78-26/544-113-18/151112JST17

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Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
151114-1530	6,293	PR3597	544-78-26/544-113-18	151016JST12/544-78-26/544-113-18/151112JST17
151118-1531	6,155	PR3599	544-78-26/544-118-14	151016JST12/544-78-26/544-118-14/151116JST16
151118-1532	5,991	PR3600	544-107-10/544-118-14	151106JST10/544-107-10/544-118-14/151116JST16
151118-1533	6,266	PR3601	544-107-10/544-118-14	151106JST10/544-107-10/544-118-14/151116JST16
151118-1534	6,309	PR3602	544-107-10/544-113-18	151106JST10/544-107-10/544-113-18/151112JST17
151119-1535	5,878	PR3603	544-107-10/544-118-14	151106JST10/544-107-10/544-118-14/151116JST16
151124-1536	6,182	PR3606	544-107-10/544-127-27	151106JST10/544-107-10/544-127-27/151123JST17
151125-1537	6,023	PR3607	544-107-10/544-127-27	151106JST10/544-107-10/544-127-27/151123JST17
151125-1538	5,937	PR3608	544-107-10/544-127-27	151106JST10/544-107-10/544-127-27/151123JST17
151125-1539	6,624	PR3609	544-107-10/544-127-27	151106JST10/544-107-10/544-127-27/151123JST17
151203-1540	5,950	PR3611	544-107-10/544-137-22	151106JST10/544-107-10/544-137-22/151202JST17
151204-1541	6,066	PR3612	544-107-10/544-137-22	151106JST10/544-107-10/544-137-22/151202JST17
151205-1542	6,223	PR3613	544-107-10/544-137-22	151106JST10/544-107-10/544-137-22/151202JST17
151205-1543	6,152	PR3614	544-107-10/544-137-22	151106JST10/544-107-10/544-137-22/151202JST17
151205-1544	6,099	PR3615	544-107-10/544-140-19	151106JST10/544-107-10/544-140-19/151204JST13
151205-1545	5,931	PR3616	544-107-10/544-140-19	151106JST10/544-107-10/544-140-19/151204JST13
151205-1546	6,120	PR3617	544-107-10/544-140-16	151106JST10/544-107-10/544-140-16/151204JST12
151209-1547	6,212	PR3629	544-107-10/544-140-16	151106JST10/544-107-10/544-140-16/151204JST12
151211-1548	6,287	PR3634	544-107-10/544-148-4	151106JST10/544-107-10/544-148-4/151211JST13
151212-1549	6,198	PR3636	544-107-10/544-148-4	151106JST10/544-107-10/544-148-4/151211JST13
151215-1550	6,139	PR3637	544-107-10/544-151-10	151106JST10/544-107-10/151215JST12/544-151-10
151215-1551	6,112	PR3638	544-107-10/544-151-10	151106JST10/544-107-10/151215JST12/544-151-10
151216-1552	5,907	PR3639	544-78-26/544-152-25	151016JST12/544-78-26/151216JST13/544-152-25
151219-1553	5,756	PR3640	544-149-20/544-156-21	151214JST10/544-149-20/544-156-21/151218JST13
151221-1554	5,880	PR3641	544-149-20/544-156-18	151214JST10/544-149-20/544-156-18/151218JST10
151222-1555	6,058	PR3642	544-149-20/544-161-16	151214JST10/544-149-20/544-161-16/151222JST11
160101-1556	6,104	PR3648	544-149-20/544-170-26	151214JST10/544-149-20/544-170-26/151230JST12
160102-1557	6,112	PR3649	544-149-20/544-170-26	151214JST10/544-149-20/544-170-26/151230JST12
160105-1558	5,993	PR3657	544-149-20/544-171-1	151214JST10/544-149-20/544-171-1/151230JST17
160106-1559	5,481	PR3662	544-149-20/544-171-1	151214JST10/544-149-20/544-171-1/151230JST17
160108-1560	6,003	PR3665	544-149-20/544-171-1	151214JST10/151230JST17
160108-1561	5,731	PR3666	544-149-20/544-180-18	151224JST10/160107JST12
160109-1562	6,079	PR3367	544-149-20/544-171-1	151214JST10/151230JST17
160107-1563	5,781	PR3663	544-149-20/544-171-1	151214JST10/151230JST17
160114-1564	5,923	PR3681	544-149-20/544-188-26	151214JST10/160113JST17
160119-1565	6,094	PR3687	544-149-20/544-195-16	151214JST10/160118JST16
160119-1566	5,658	PR3688	544-149-20/544-195-19	151214JST10/160118JST11
160115-1567	5,716	PR3685	544-149-20/544-188-26	151214JST10/160113JST17
160116-1568	5,645	PR3687	544-149-20/544-188-26	151214JST10/160113JST17
160120-1569	5,711	PR3691	544-149-20/544-195-16	151214JST10/160118JST16
160121-1570	5,615	PR3694	544-149-20/544-195-16	151214JST10/160118JST16
160128-1571	5,628	PR3723	544-149-20/545-2-14	151214JST10/160128JST16
160129-1572	6,024	PR3733	544-149-20/545-2-14	151214JST10/160128JST16
160130-1574	5,916	PR3737	544-198-27/545-2-14	160121JST10/160128JST16
160201-1573	5,599	PR3738	544-198-27/545-2-14	160121JST10/160128JST16
160202-1575	5,896	PR3744	544-198-27/545-8-16	160121JST10/160201JST17
160203-1576	5,679	PR3749	544-198-27/545-2-14	160121JST10/160128JST16
160204-1577	5,741	PR3751	544-198-27/545-8-16	160121JST10/160201JST17
160204-1578	6,026	PR3750	544-198-27/545-8-16	160121JST10/160201JST17
160205-1578A	5,571	PR3754	544-198-27/545-11-27	160121JST10/160204JST16
160206-1579	6,016	PR3756	544-198-27/545-11-27	160121JST10/160204JST16
160206-1580	5,881	PR3755	544-198-27/545-11-27	160121JST10/160204JST16
160207-1581	5,771	PR3757	544-198-27/545-11-27	160121JST10/160204JST16
160208-1582	5,644	PR3758	544-198-27/545-19-5	160121JST10/160208JST16
160212-1583	5,407	PR3761	544-198-27/545-23-22	160121JST10/160211JST17
160212-1584	5,709	PR3762	544-198-27/545-23-22	160121JST10/160211JST17
160212-1585	5,422	PR3763	544-198-27/545-23-22	160121JST10/160211JST17
160213-1586	5,437	PR3764	544-198-27/545-26-8	160121JST10/160212JST16
160213-1587	5,437	PR3765	544-198-27/545-26-8	160121JST10/160212JST16
160213-1588	5,437	PR3766	544-198-27/545-26-8	160121JST10/160212JST16
160213-1589	5,606	PR3767	544-198-27/545-26-8	160121JST10/160212JST16
160215-1590	5,893	PR3768	544-198-27/545-26-8	160121JST10/160212JST16
160215-1591	5,589	PR3770	544-198-27/545-30-13	160121JST10/160215JST17
160219-1592	5,769	PR3790	545-19-13/545-30-13	160208JST10/160215JST17

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Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
160219-1593	5,782	PR3789	545-19-13/545-30-13	160208JST10/160215JST17
160219-1594	5,816	PR3788	545-19-13/545-30-13	160208JST10/160215JST17
160220-1595	5,674	PR3786	545-19-13/545-36-17	160208JST10/160219JST16
160220-1596	5,700	PR3792	545-19-13/545-36-17	160208JST10/160219JST16
160220-1597	5,772	PR3791	545-19-13/545-30-13	160208JST10/160215JST17
160221-1598	5,759	PR3788	545-19-13/545-36-17	160208JST10/160219JST16
160221-1599	5,772	PR3787	545-19-13/545-36-17	160208JST10/160219JST16
160224-1600	6,040	PR3795	545-19-13/545-31-14	160208JST10/160216JST11
160225-1601	5,537	PR3797	545-19-13/545-45-13	160208JST10/160225JST17
160225-1602	5,607	PR3796	545-19-13/545-45-13	160208JST10/160225JST17
160226-1603	5,749	PR3798	545-19-13/545-45-13	160208JST10/160225JST17
160226-1604	6,078	PR3799	545-19-13/545-45-13	160208JST10/160225JST17
160301-1605	5,986	PR3805	545-19-13/545-45-13	160208JST10/160225JST17
160301-1606	5,715	PR3806	545-19-13/545-45-13	160208JST10/160225JST17
160302-1607	6,066	PR3813	545-19-13/545-53-20	160208JST10/160301MHT17
160302-1608	5,671	PR3814	545-19-13/545-53-20	160208JST10/160301MHT17
160304-1609	5,705	PR3820	545-19-13/545-53-20	160208JST10/160301MHT17
160304-1610	5,903	PR3822	545-19-13/545-53-20	160208JST10/160301MHT17
160303-1611	5,970	PR3819	545-19-13/545-53-20	160208JST10/160301MHT17
160304-1612	6,078	PR3825	545-45-27/545-53-20	160225JST10/160301MHT17
160309-1613	6,083	PRNA	545-45-27/545-53-20	160225JST10/160301MHT16
160309-1614	5,962	PRNA	545-45-27/545-53-20	160225JST10/160301MHT16
160310-1615	5,785	PR3832	545-45-27/545-53-20	160225JST10/160301MHT16
160311-1616	5,575	PR3836	545-45-27/545-53-20	160225JST10/160301MHT16
160317-1617	6,075	PR3852	545-45-27/545-62-8	160225JST10/160307JST17
160317-1618	5,792	PR3853	545-45-27/545-62-8	160225JST10/160307JST17
160318-1619	5,735	PR3855	545-45-27/545-62-8	160225JST10/160307JST17
160321-1620	5,703	PR3859	545-45-27/545-79-22	160225JST10/160318JST16
160322-1621	5,675	PR3862	545-45-27/545-79-22	160225JST10/160318JST16
160324-1622	5,970	PR3860	545-45-27/545-84-7	160225JST10/160322JST17
160325-1623	6,426	PR3867	545-45-27/545-84-7	160225JST10/160322JST17
160330-1624	5,355	PR3896	545-45-27/545-84-7	160225JST10/160322JST17
160331-1625	5,845	PR3905	545-45-27/545-84-7	160225JST10/160322JST17
160401-1626	6,054	PR3908	545-45-27/545-84-7	160225JST10/160322JST17
160401-1627	5,813	PR3911	545-45-27/545-84-7	160225JST10/160322JST17
160402-1628	5,900	PR3909	545-45-27/545-79-22	160225JST10/160318JST16
160402-1629	5,984	PR3910	545-45-27/545-79-22	160225JST10/160318JST16
160403-1630	6,120	PR3914	545-45-27/545-101-9	160225JST10/160404JST11
160405-1631	5,821	PR3917	545-45-27/545-101-20	160225JST10/160404JST16
160409-1632	5,263	PR3919	545-92-28/545-101-20	160329JST13/160404JST16
160409-1633	5,312	PR3920	545-92-28/545-101-20	160329JST13/160404JST16
160411-1634	5,688	PR3922	545-92-28/545-101-20	160329JST13/160404JST16
160412-1635	5,506	PR3926	545-92-28/545-107-24	160329JST13/160408JST17
160414-1636	5,504	PR3935	545-92-28/545-113-24	160329JST13/160412JST16
160415-1637	5,548	PR3939	545-92-28/545-113-24	160329JST13/160412JST16
160416-1638	5,475	PR3943	545-92-28/545-117-27	160329JST13/160418JST16
160416-1639	5,540	PR3945	545-92-28/545-113-24	160329JST13/160412JST16
160416-1640	5,540	PR3944	545-92-28/545-117-27	160329JST13/160418JST16
160421-1641	5,402	PR3945	545-92-28/545-117-27	160329JST13/160418JST16
160422-1642	5,458	PR3946	545-92-28/545-117-27	160329JST13/160418JST16
160423-1643	5,368	PR3948	545-92-28/545-117-27	160329JST13/160418JST16
160425-1644	5,771	PR3949	545-92-28/545-121-12	160329JST13/160422JST17
160426-1645	5,409	PR3950	545-92-28/545-121-12	160329JST13/160422JST17
160427-1646	5,613	PR3951	545-92-28/545-121-12	160329JST13/160422JST17
160428-1647	5,511	PR3952	545-92-28/545-121-12	160329JST13/160422JST17
160510-1648	5,620	PR3965	545-92-28/545-139-15	160329JST13/160509JST17
160511-1649	5,353	PR3966	545-92-28/545-139-15	160329JST13/160509JST17
160512-1650	5,200	PR3967	545-92-28/545-139-15	160329JST13/160509JST17
160513-1651	5,467	PR3969	545-92-28/545-121-12	160329JST13/160422JST17
160513-1652	5,768	PR3970	545-130-27/545-139-15	160502JST16/160509JST17
160517-1653	5,993	PR3972	545-130-27/545-151-7	160502JST16/160516JST17
160518-1654	6,019	PR3973	545-130-27/545-151-7	160502JST16/160516JST17
160519-1655	5,554	PR3974	545-130-27/545-151-7	160502JST16/160516JST17
160520-1656	5,861	PR3976	545-130-27/545-151-7	160502JST16/160516JST17

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
160520-1657	5,670	PR3977	545-130-27/545-151-7	160502JST16/160516JST17
160524-1658	6,068	PR3986	545-130-27/545-161-25	160502JST16/160523JST17
160525-1659	6,127	PR3996	545-130-27/545-161-25	160502JST16/160523JST17
160526-1660	6,171	PR4002	545-130-27/545-161-25	160502JST16/160523JST17
160526-1661	6,011	PR4003	545-130-27/545-161-25	160502JST16/160523JST17
160527-1662	6,013	PR4005	545-130-27/545-161-25	160502JST16/160523JST17
160527-1663	5,458	PR4006	545-130-27/545-166-19	160502JST16/160527MHT13
160603-1664	6,414	PR4021	545-130-27/545-174-6	160502JST16/160602JST17
160604-1665	5,882	PR4022	545-130-27/545-174-6	160502JST16/160602JST17
160606-1666	5,874	PR4026	545-130-27/545-174-6	160502JST16/160602JST17
160608-1667	5,980	PR4034	545-130-27/545-174-6	160502JST16/160602JST17
160609-1668	6,460	PR4037	545-130-27/545-174-6	160502JST16/160602JST17
160609-1669	6,122	PR4038	545-130-27/545-174-6	160502JST16/160602JST17
160609-1670	6,086	PR4039	545-130-27/545-180-20	160502JST16/160607JST16
160609-1671	6,153	PR4040	545-130-27/545-180-20	160502JST16/160607JST16
160613-1672	6,063	PR4054	545-178-28/545-180-20	160606JST12/160607JST16
160613-1673	5,974	PR4055	545-178-28/545-180-20	160606JST12/160607JST16
160618-1674	5,923	PR4059	545-178-28/545-189-25	160606JST12/160614JST17
160618-1675	6,144	PR4060	545-178-28/545-189-25	160606JST12/160614JST17
160618-1676	5,763	PR4061	545-178-28/545-189-25	160606JST12/160614JST17
160620-1677	6,070	PR4062	545-178-28/545-189-25	160606JST12/160614JST17
160621-1678	6,172	PR4064	545-178-28/545-189-25	160606JST12/160614JST17
160622-1679	6,174	PR4065	545-178-28/545-194-16	160606JST12/160617JST16
160622-1680	5,758	PR4066	545-178-28/545-194-16	160606JST12/160617JST16
160623-1681	5,774	PR4067	545-178-28/545-194-16	160606JST12/160617JST16
160624-1682	6,002	PR	545-178-28/545-194-16	160606JST12/160617JST16
160625-1683	6,017	PR	545-178-28/545-194-16	160606JST12/160617JST16
160629-1684	5,553	PR4070	545-178-28/545-207-25	160606JST12/160628JST16
160629-1685	5,974	PR4071	545-178-28/545-207-25	160606JST12/160628JST16
160630-1686	5,855	PR4073	545-178-28/545-207-25	160606JST12/160628JST16
160630-1687	6,281	PR4074	545-178-28/545-207-25	160606JST12/160628JST16
160630-1688	5,677	PR4077	545-178-28/545-207-25	160606JST12/160628JST16
160701-1689	5,860	PR4078	545-178-28/545-207-25	160606JST12/160628JST16
160701-1690	6,276	PR4079	545-178-28/545-206-27	160606JST12/160627JST17
160705-1691	5,956	PR4080	545-178-28/545-206-27	160606JST12/160627JST17
160705-1692	5,658	PR4081	545-208-27/546-10-5	160629JST13/160705JST16
160706-1693	5,785	PR4084	545-208-27/546-10-5	160629JST13/160705JST16
160706-1694	6,238	PR4085	545-208-27/545-206-27	160629JST13/160627JST17
160706-1695	5,842	PR4086	545-208-27/546-10-5	160629JST13/160705JST16
160706-1696	5,692	PR4087	545-208-27/545-206-27	160629JST13/160627JST17
160707-1697	5,875	PR4088	545-208-27/546-10-5	160629JST13/160705JST16
160708-1698	6,271	PR4092	545-208-27/545-206-27	160629JST13/160627JST17
160708-1699	6,129	PR4093	545-208-27/545-206-27	160629JST13/160627JST17
160708-1700	6,225	PR4094	545-208-27/546-10-5	160629JST13/160705JST16
160711-1701	5,756	PR4095	545-208-27/546-11-25	160629JST13/160706JST35
160711-1702	5,839	PR4096	545-208-27/546-11-25	160629JST13/160706JST35
160712-1703	5,959	PR4097	545-208-27/546-11-22	160629JST13/160706JST36
160713-1704	5,751	PR4099	545-208-27/546-11-22	160629JST13/160706JST36
160713-1705	5,850	PR4100	545-208-27/546-11-25	160629JST13/160706JST35
160715-1706	5,670	PR4107	545-208-27/546-19-3	160629JST13/160711JST17
160715-1707	5,611	PR4109	545-208-27/546-19-3	160629JST13/160711JST17
160718-1708	5,786	PR4110	545-208-27/546-19-3	160629JST13/160711JST17
160720-1709	5,890	PR4126	545-208-27/546-19-3	160629JST13/160711JST17
160721-1710	5,690	PR4140	545-208-27/546-19-3	160629JST13/160711JST17
160727-1711	5,862	PR4155	545-208-27/546-23-22	160629JST13/160714MHT16
160728-1712	6,232	PR4162	546-30-15/546-23-22	160718JST13/160714MHT16
160728-1713	6,700	PR4166	546-30-15/546-41-27	160718JST13/160727JST17
160728-1714	6,311	PR4168	546-30-15/546-41-27	160718JST13/160727JST17
160729-1715	6,232	PR4172	546-30-15/546-41-27	160718JST13/160727JST17
160729-1716	6,360	PR4174	546-30-15/546-41-27	160718JST13/160727JST17
160729-1717	6,259	PR4177	546-30-15/546-41-27	160718JST13/160727JST17
160730-1718	6,344	PR4176	546-30-15/546-41-27	160718JST13/160727JST17
160802-1719	6,118	PR4183	546-30-15/546-49-7	160718JST13/160802JST16
160803-1720	6,622	PR4185	546-30-15/546-49-7	160718JST13/160802JST16

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
160806-1721	6,025	PR4186	546-30-15/546-49-7	160718JST13/160802JST16
160806-1722	5,916	PR4187	546-30-15/546-49-7	160718JST13/160802JST16
160806-1723	6,292	PR4188	546-30-15/546-49-7	160718JST13/160802JST16
160810-1724	6,232	PR4191	546-30-15/546-62-20	160718JST13/160810JST16
160810-1725	6,330	PR4192	546-30-15/546-62-20	160718JST13/160810JST16
160811-1726	6,112	PR4194	546-30-15/546-62-20	160718JST13/160810JST16
160811-1727	6,238	PR4195	546-30-15/546-62-20	160718JST13/160810JST16
160812-1728	5,930	PR4198	546-30-15/546-62-20	160718JST13/160810JST16
160813-1729	5,706	PR4199	546-59-20/546-64-21	160808JST11/160811JST36
160813-1730	6,176	PR4200	546-59-20/546-64-21	160808JST11/160811JST36
160815-1731	6,347	PR4201	546-59-20/546-59-17	160808JST11/160808JST17
160817-1732	6,067	PR4204	546-59-20/546-59-17	160808JST11/160808JST17
160817-1733	6,326	PR4205	546-59-20/546-59-17	160808JST11/160808JST17
160819-1734	6,065	PR4213	546-59-20/546-59-17	160808JST11/160808JST17
160819-1735	6,241	PR4214	546-59-20/546-59-17	160808JST11/160808JST17
160819-1736	6,239	PR4215	546-59-20/546-69-9	160808JST11/160815JST16
160820-1737	6,054	PR4218	546-59-20/546-69-9	160808JST11/160815JST16
160822-1738	6,173	PR4220	546-59-20/546-69-9	160808JST11/160815JST16
160823-1739	6,166	PR4224	546-59-20-546-69-9	160808JST11/160815JST16
160902-1740	6,198	PR4239	546-59-20/546-91-19	160808JST11/160831JST16
160902-1741	5,847	PR4241	546-59-20/546-91-19	160808JST11/160831JST16
160902-1742	6,092	PR4242	546-59-20/546-91-19	160808JST11/160831JST16
160906-1743	6,141	PR4244	546-59-20/546-91-19	160808JST11/160831JST16
160906-1744	5,961	PR4246	546-59-20/546-91-19	160808JST11/160831JST16
160914-1745	6,600	PR4249	546-59-20/546-105-23	160808JST11/160912JST16
160914-1746	5,923	PR4250	546-59-20/546-105-23	160808JST11/160912JST16
160915-1747	6,388	PR4255	546-59-20/546-105-23	160808JST11/160912JST16
160915-1748	6,054	PR4257	546-59-20/546-105-23	160808JST11/160912JST16
160916-1749	6,027	PR4264	546-105-28/546-107-9	160912JST12/160914JST17
160916-1750	5,851	PR4265	546-105-28/546-107-9	160912JST12/160914JST17
160917-1751	5,851	PR4269	546-105-28/546-107-9	160912JST12/160914JST17
160919-1752	5,642	PR4273	546-105-28/546-112-4	160912JST12/160919JST12
160920-1753	4,750	PR4283	546-105-28/546-107-9	160912JST12/160914JST17
160927-1754	5,464	PR4304	546-105-28/546-122-8	160912JST12/160926JST17
160930-1755	5,723	PR4307	546-105-28/546-122-8	160912JST12/160926JST17
160930-1756	5,689	PR4308	546-105-28/546-122-8	160912JST12/160926JST17
161001-1757	5,744	PR4309	546-105-28/546-122-8	160912JST12/160926JST17
161007-1758	5,493	PR4311	546-105-28/546-136-14	160912JST12/161006JST11
161008-1759	5,752	PR4314	546-105-28/546-136-17	160912JST12/161006JST13
161010-1760	5,781	PR4313	546-105-28/546-136-14	160912JST12/161006JST11
161010-1761	6,069	PR4315	546-105-28/546-140-22	160912JST12/161010JST10
161011-1762	5,477	PR4317	546-105-28/546-141-22	160912JST12/161011JST12
161012-1763	6,343	PR4321	546-105-28/546-136-7	160912JST12/161006JST17
161012-1764	5,870	PR4322	546-105-28/546-136-7	160912JST12/161006JST17
161013-1765	5,671	PR4325	546-105-28/546-136-7	160912JST12/161006JST17
161014-1766	5,904	PR4326	546-105-28/546-136-7	160912JST12/161006JST17
161017-1767	6,239	PR4327	546-105-28/546-136-7	160912JST12/161006JST17
161018-1768	5,967	PR4328	546-105-28/546-148-7	160912JST12/161017JST16
161019-1769	5,812	PR4329	546-145-19/546-148-7	161014JST12/161017JST16
161020-1770	5,890	PR4330	546-145-19/546-148-7	161014JST12/161017JST16
161020-1771	6,232	PR4331	546-145-19/546-148-7	161014JST12/161017JST16
161021-1772	5,650	PR4332	546-145-19/546-148-7	161014JST12/161017JST16
161021-1773	6,053	PR4333	546-145-19/546-151-6	161014JST12/161020JST17
161024-1774	6,019	PR4334	546-145-19/546-151-6	161014JST12/161020JST17
161025-1775	6,311	PR4335	546-145-19/546-151-6	161014JST12/161020JST17
161026-1776	6,048	PR4336	546-145-19/546-151-6	161014JST12/161020JST17
161027-1777	6,001	PR4337	546-145-19/546-151-6	161014JST12/161020JST17
161110-1778	5,806	PR4380	546-145-19/546-171-15	161014JST12/161108JST17
161111-1779	5,724	PR4384	546-145-19/546-171-15	161014JST12/161108JST17
161111-1780	5,595	PR4385	546-145-19/546-171-15	161014JST12/161108JST17
161112-1781	6,145	PR4388	546-145-19/546-171-15	161014JST12/161108JST17
161123-1782	6,016	PR4393	546-145-19/546-188-3	161014JST12/161122JST17
161123-1783	5,977	PR4394	546-145-19/546-188-3	161014JST12/161122JST17
161126-1784	5,972	PR4395	546-173-5/546-188-3	161109JST12/161122JST17

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
161129-1785	5,901	PR4398	546-145-19/546-197-10	161014JST12/161129JST17
161129-1786	5,866	PR4399	546-145-19/546-197-10	161014JST12/161129JST17
161130-1787	5,972	PR4401	546-145-19/546-197-10	161014JST12/161129JST17
161201-1788	6,064	PR4402	546-145-19/546-197-10	161014JST12/161129JST17
161202-1789	6,161	PR4406	546-145-19/546-197-10	161014JST12/161129JST17
161207-1790	6,443	PR4420	546-173-5/546-197-7	161109JST12/161129JST16
161208-1791	6,435	PR4426	546-173-5/546-197-7	161109JST12/161129JST16
161208-1792	6,130	PR4427	546-173-5/546-197-7	161109JST12/161129JST16
161208-1793	6,380	PR4428	546-173-5/546-197-7	161109JST12/161129JST16
161209-1794	6,486	PR4430	546-173-5/546-208-6	161109JST12/161206JST17
161209-1795	6,225	PR4431	546-173-5/546-197-7	161109JST12/161129JST16
161209-1796	6,315	PR4432	546-173-5/546-208-6	161109JST12/161206JST17
161213-1797	6,135	PR4442	546-173-5/546-208-6	161109JST12/161206JST17
161214-1798	5,793	PR4447	546-173-5/546-208-6	161109JST12/161206JST17
161214-1799	6,247	PR4448	546-173-5/546-208-6	161109JST12/161206JST17
161215-1800	5,953	PR4451	546-173-5/547-9-18	161109JST12/161213JST16
161215-1801	6,293	PR4453	546-173-5/547-9-18	161109JST12/161213JST16
161215-1802	6,331	PR4454	546-173-5/547-9-18	161109JST12/161213JST16
161215-1803	6,361	PR4455	546-173-5/547-9-18	161109JST12/161213JST16
161216-1804	5,923	PR4460	545-173-5/547-9-18	161109JST12/161213JST16
161216-1805	5,825	PR4461	545-173-5/547-13-19	161109JST12/161215JST17
161217-1806	6,157	PR4462	545-173-5/547-13-19	161109JST12/161215JST17
161217-1807	6,386	PR4463	545-173-5/547-13-19	161109JST12/161215JST17
161219-1808	6,418	PR4464	545-173-5/547-13-19	161109JST12/161215JST17
161221-1809	5,977	PR4469	547-14-23/547-19-27	161216JST12/161220JST16
161221-1810	6,008	PR4470	547-14-23/547-19-27	161216JST12/161220JST16
161221-1811	5,880	PR4471	547-14-23/547-19-27	161216JST12/161220JST16
161222-1812	5,565	PR4474	547-14-23/547-20-3	161216JST12/161220JST17
161222-1813	5,720	PR4475	547-14-23/547-19-27	161216JST12/161220JST16
161222-1814	6,037	PR4476	547-14-23/547-19-27	161216JST12/161220JST16
161222-1815	5,888	PR4477	547-14-23/547-20-3	161216JST12/161220JST17
161223-1816	5,752	PR4480	547-14-23/547-20-3	161216JST12/161220JST17
161223-1817	5,707	PR4481	547-14-23/547-20-3	161216JST12/161220JST17
161223-1818	5,814	PR4482	547-14-23/547-20-3	161216JST12/161220JST17
161229-1819	5,845	PR4491	547-14-23/547-26-18	161216JST12/161228JST16
161230-1820	5,952	PR4496	547-14-23/547-26-18	161216JST12/161228JST16
161230-1821	6,135	PR4495	547-14-23/547-26-18	161216JST12/161228JST16
161230-1822	5,727	PR4497	547-14-23/547-26-18	161216JST12/161228JST16
161231-1823	6,237	PR4498	547-14-23/547-26-18	161216JST12/161228JST16
170112-1824	6,032	PR4516	547-14-23/547-37-16	161216JST12/170109JST16
170112-1825	5,980	PR4517	547-14-23/547-37-16	161216JST12/170109JST16
170112-1826	5,956	PR4518	547-14-23/547-37-16	161216JST12/170109JST16
170113-1827	6,069	PR4521	547-14-23/547-40-17	161216JST12/170111JST17
170113-1828	5,967	PR4522	547-14-23/547-37-16	161216JST12/170109JST16
170119-1829	5,532	PR4533	547-26-16/547-49-15	161228JST10/170118JST17
170120-1830	5,544	PR4536	547-26-16/547-49-15	161228JST10/170118JST17
170120-1831	5,668	PR4537	547-26-16/547-49-15	161228JST10/170118JST17
170121-1832	5,941	PR4540	547-26-16/547-49-15	161228JST10/170118JST17
170121-1833	5,641	PR4541	547-26-16/547-49-15	161228JST10/170118JST17
170127-1834	5,668	PR4559	547-26-16/547-58-6	161228JST10/170124JST17
170127-1835	3,927	PR4560	547-26-16/547-58-6	161228JST10/170124JST17
170128-1836	5,484	PR4561	547-26-16/547-58-6	161228JST10/170124JST17
170128-1837	5,976	PR4562	547-26-16/547-58-6	161228JST10/170124JST17
170128-1838	5,710	PR4563	547-26-16/547-58-6	161228JST10/170124JST17
170131-1839	5,858	PR4571	547-26-16/547-67-14	161228JST10/170131JST17
170131-1840	5,722	PR4573	547-26-16/547-67-14	161228JST10/170131JST17
170201-1841	5,797	PR4578	547-26-16/547-67-14	161228JST10/170131JST17
170201-1842	5,489	PR4579	547-26-16/547-67-14	161228JST10/170131JST17
170202-1843	6,000	PR4583	547-26-16/547-67-14	161228JST10/170131JST17
170209-1844	5,728	PR4607	547-26-16/547-78-23	161228JST10/170208JST17
170209-1845	5,430	PR4608	547-26-16/547-78-23	161228JST10/170208JST17
170210-1846	5,874	PR4609	547-26-16/547-78-23	161228JST10/170208JST17
170210-1847	5,777	PR4610	547-26-16/547-78-23	161228JST10/170208JST17
170216-1848	5,960	PR4622	547-67-21/547-86-4	170131JST13/170213JST16

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Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
170217-1849	6,023	PR4624	547-67-21/547-86-4	170131JST13/170213JST16
170218-1850	6,041	PR4625	547-67-21/547-86-4	170131JST13/170213JST16
170218-1851	6,067	PR4626	547-67-21/547-86-4	170131JST13/170213JST16
170222-1852	5,812	PR4630	547-67-21/547-96-04	170131JST13/170220JGT17
170223-1853	5,911	PR4634	547-67-21/547-96-04	170131JST13/170220JGT17
170223-1854	5,839	PR4636	547-26-16/547-96-04	161228JST10/170220JGT17
170224-1855	6,010	PR4639	547-67-21/547-96-04	170131JST13/170220JGT17
170224-1856	6,324	PR4641	547-67-21/547-96-04	170131JST13/170220JGT17
170225-1857	5,817	PR4644	547-67-21/547-97-15	170131JST13/170222JGT16
170225-1858	6,231	PR4645	547-67-21/547-97-15	170131JST13/170222JGT16
170227-1859	6,041	PR4646	547-67-21/547-97-15	170131JST13/170222JGT16
170227-1860	5,965	PR4647	547-67-21/547-97-15	170131JST13/170222JGT16
170228-1861	6,163	PR4652	547-67-21/547-97-15	170131JST13/170222JGT16
170228-1862	5,934	PR4653	547-67-21/547-104-21	170131JST13/170227JGT17
170301-1863	6,038	PR4655	547-67-21/547-104-21	170131JST13/170227JGT17
170301-1864	5,846	PR4656	547-67-21/547-104-21	170131JST13/170227JGT17
170302-1865	5,778	PR4658	547-67-21/547-104-21	170131JST13/170227JGT17
170303-1866	6,083	PR4660	547-67-21/547-104-21	170131JST13/170227JGT17
170309-1867	5,947	PR4670	547-67-21/547-115-20	170131JST13/170307JGT16
170310-1868	5,789	PR4671	547-67-21/547-115-20	170131JST13/170307JGT16
170311-1869	5,750	PR4672	547-98-25/547-115-20	170222JGT11/170307JGT16
170311-1870	5,605	PR4674	547-98-25/547-115-20	170222JGT11/170307JGT16
170311-1871	5,987	PR4675	547-98-25/547-115-20	170222JGT11/170307JGT16
170313-1872	5,431	PR4672	547-98-25/547-119-26	170222JGT11/170310JGT17
170314-1873	5,640	PR4677	547-98-25/547-119-26	170222JGT11/170310JGT17
170315-1874	5,929	PR4682	547-98-25/547-119-26	170222JGT11/170310JGT17
170316-1875	5,797	PR4692	547-98-25/547-119-26	170222JGT11/170310JGT17
170317-1876	5,700	PR4697	547-98-25/547-119-26	170222JGT11/170310JGT17
170323-1877	5,573	PR4731	547-98-25/547-131-16	170222JGT11/170320JGT16
170325-1878	5,800	PR4742	547-98-25/547-131-16	170222JGT11/170320JGT16
170325-1879	5,423	PR4743	547-98-25/547-131-16	170222JGT11/170320JGT16
170325-1880	5,311	PR4744	547-98-25/547-131-16	170222JGT11/170320JGT16
170325-1881	5,386	PR4745	547-98-25/547-131-16	170222JGT11/170320JGT16
170328-1882	5,303	PR4746	547-98-25/547-141-17	170222JGT11/170327MHT17
170328-1883	5,797	PR4749	547-98-25/547-141-17	170222JGT11/170327MHT17
170328-1884	5,775	PR4752	547-98-25/547-141-17	170222JGT11/170327MHT17
170329-1885	5,341	PR4755	547-98-25/547-141-17	170222JGT11/170327MHT17
170330-1886	5,682	PR4761	547-98-25/547-144-22	170222JGT11/170329MHT16
170330-1887	5,396	PR4762	547-98-25/547-144-22	170222JGT11/170329MHT16
170401-1888	5,872	PR4766	547-98-25/547-144-22	170222JGT11/170329MHT16
170401-1889	5,456	PR4767	547-98-25/547-144-22	170222JGT11/170329MHT16
170405-1890	6,013	PR4776	547-141-14/547-144-22	170327MHT12/170329MHT16
170405-1891	5,815	PR4779	547-141-14/547-144-22	170327MHT12/170329MHT16
170405-1892	6,127	PR4781	547-141-14/547-151-15	170327MHT12/170405MHT17
170406-1893	5,754	PR4784	547-141-14/547-151-15	170327MHT12/170405MHT17
170406-1894	5,693	PR4785	547-141-14/547-151-15	170327MHT12/170405MHT17
170406-1895	5,769	PR4786	547-141-14/547-151-15	170327MHT12/170405MHT17
170407-1896	5,749	PR4794	547-141-14/547-158-11	170327MHT12/170406MHT12
170407-1897	5,709	PR4793	547-141-14/547-151-15	170327MHT12/170405MHT17
170408-1898	5,455	PR4795	547-141-14/547-158-18	170327MHT12/170406MHT11
170414-1899	5,670	PR4815	547-141-14/547-160-11	170327MHT12/170413MHT10
170414-1900	5,747	PR4816	547-141-14/547-160-11	170327MHT12/170413MHT10
170417-1901	5,419	PR4820	547-141-14/547-160-11	170327MHT12/170413MHT10
170425-1902	5,325	PR4852	547-141-14/547-176-3	170327MHT12/170424JST16
170425-1903	5,571	PR4853	547-141-14/547-176-3	170327MHT12/170424JST16
170426-1904	5,544	PR4861	547-141-14/547-176-3	170327MHT12/170424JST16
170427-1905	4,368	PR4868	547-141-14/547-176-3	170327MHT12/170424JST16
170427-1906	5,780	PR4869	547-141-14/547-176-3	170327MHT12/170424JST16
170501-1907	6,013	PR4884	547-141-14/547-176-20	170327MHT12/170427MHT17
170501-1908	6,077	PR4886	547-141-14/547-176-20	170327MHT12/170427MHT17
170502-1909	5,742	PR4889	547-141-14/547-176-20	170327MHT12/170427MHT17
170615-1910	5,575	PR4938	561-7-26	170613JST12
170616-1911	5,453	PR4939	561-7-26/561-11-7	170613JST12/170616JST10
170616-1912	5,845	PR4940	561-7-26/561-11-10	170613JST12/170616JST16

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
170616-1913	6,032	PR4941	561-7-26/561-11-10	170613JST12/170616JST16
170617-1914	5,280	PR4942	561-7-26/561-11-10	170613JST12/170616JST16
170617-1915	5,762	PR4943	561-7-26/561-11-10	170613JST12/170616JST16
170617-1916	5,988	PR4944	561-7-26/561-11-10	170613JST12/170616JST16
170622-1917	5,609	PR4948	561-7-26/561-19-16	170613JST12/170621JST16
170623-1918	6,151	PR4953	561-7-26/561-19-16	170613JST12/170621JST16
170623-1919	5,899	PR4955	561-7-26/561-19-16	170613JST12/170621JST16
170623-1920	6,213	PR4956	561-7-26/516-19-16	170613JST12/170621JST16
170624-1921	5,905	PR4957	561-7-26/561-19-19	170613JST12/170621JST11
170624-1922	5,855	PR4958	561-7-26/561-19-16	170613JST12/170621JST16
170626-1923	6,143	PR4960	561-7-26/561-19-19	170613JST12/170621JST11
170630-1924	5,604	PR4980	561-7-26/561-31-22	170613JST12/170629JST16
170701-1925	5,622	PR4982	561-7-26/561-31-22	170613JST12/170629JST16
170701-1926	5,508	PR4983	561-7-26/561-31-22	170613JST12/170629JST16
170701-1927	5,648	PR4990	561-7-26/561-40-24	170613JST12/170706JST16
170701-1928	5,759	PR4991	561-7-26/561-40-24	170613JST12/170706JST16
170701-1929	5,726	PR4992	561-7-26/561-40-24	170613JST12/170706JST16
170708-1930	5,840	PR5000	561-19-13/561-40-24	170621JST12/170706JST16
170708-1931	5,451	PR5002	561-19-13/561-40-24	170621JST12/170706JST16
170712-1932	5,578	PR5010	561-19-13/561-9-3	170621JST12/170614JST17
170713-1933	5,591	PR5018	561-19-13/561-9-3	170621JST12/170614JST17
170713-1934	5,472	PR5020	561-19-13/561-9-3	170621JST12/170614JST17
170714-1935	6,042	PR5021	561-19-13/561-9-3	170621JST12/170614JST17
170714-1936	5,749	PR5024	561-19-13/561-9-3	170621JST12/170614JST17
170720-1937	6,252	PR5032	561-19-13/561-56-11	170621JST12/170718JST16
170720-1938	5,754	PR5033	561-19-13/561-56-11	170621JST12/170718JST16
170724-1939	5,956	PR5037	561-19-13/561-56-11	170621JST12/170718JST16
170725-1940	6,001	PR5039	561-19-13/561-56-11	170621JST12/170718JST16
170725-1941	5,752	PR5040	561-19-13/561-56-11	170621JST12/170718JST16
170726-1942	6,096	PR5044	561-19-13/561-66-17	170621JST12/170726JST16
170726-1943	6,208	PR5047	561-19-13/561-66-17	170621JST12/170726JST16
170727-1944	5,881	PR5050	561-19-13/561-66-17	170621JST12/170726JST16
170727-1945	5,894	PR5055	561-19-13/561-66-17	170621JST12/170726JST16
170801-1946	5,440	PR5066	561-19-13/561-71-28	170621JST12/170801JST17
170802-1947	5,526	PR5068	561-19-13/561-71-28	170621JST12/170801JST17
170803-1948	5,202	PR5072	561-19-13/561-71-28	170621JST12/170801JST17
170803-1949	5,778	PR5073	561-19-13/561-71-28	170621JST12/170801JST17
170807-1950	5,704	PR5076	561-71-2/561-80-25	170731JST10/170807JST17
170807-1951	5,765	PR5077	561-71-2/561-80-25	170731JST10/170807JST17
170808-1952	6,103	PR5078	561-71-2/561-80-25	170731JST10/170807JST17
170808-1953	6,045	PR5079	561-71-2/561-80-25	170731JST10/170807JST17
170809-1954	5,874	PR5089	561-71-2/561-80-25	170731JST10/170807JST17
170810-1955	5,787	PR5093	561-71-2/561-82-15	170731JST10/170808JST16
170810-1956	5,818	PR5099	561-71-2/561-82-15	170731JST10/170808JST16
170811-1957	5,497	PR5103	561-71-2/561-82-15	170731JST10/170808JST16
170814-1958	5,808	PR5106	561-71-2/561-82-15	170731JST10/170808JST16
170913-1959	5,917	PR5137	561-71-2/561-113-3	170731JST10/170912JST17
170914-1960	5,999	PR5145	561-71-2/561-113-3	170731JST10/170912JST17
170915-1961	6,002	PR5157	561-71-2/561-113-3	170731JST10/170912JST17
170916-1962	5,481	PR5161	561-71-2/561-115-21	170731JST10/170915JST10
170916-1963	5,760	PR5162	561-71-2/561-115-21	170731JST10/170915JST10
170927-1964	5,816	PR5185	561-71-2/561-129-11	170731JST10/170926JST17
170928-1965	5,904	PR5196	561-71-2/561-129-11	170731JST10/170926JST17
170929-1966	5,869	PR5202	561-71-2/561-129-11	170731JST10/170926JST17
170929-1967	5,877	PR5204	561-71-2/561-129-11	170731JST10/170926JST17
170930-1968	6,045	PR5207	561-71-2/561-129-11	170731JST10/170926JST17
171003-1969	5,787	PR5208	561-112-26/561-137-11	170912JST11/171002JST17
171004-1970	5,648	PR5213	561-112-26/561-137-11	170912JST11/171002JST17
171005-1971	6,054	PR5215	561-112-26/561-137-11	170912JST11/171002JST17
171006-1972	5,979	PR5221	561-112-26/561-137-11	170912JST11/171002JST17
171006-1973	5,829	PR5222	561-112-26/561-137-11	170912JST11/171002JST17
171010-1974	6,030	PR5227	561-112-26/561-146-3	170912JST11/171010JST16
171012-1975	5,705	PR5230	561-112-26/561-146-3	170912JST11/171010JST16
171012-1976	5,800	PR5231	561-112-26/561-146-3	170912JST11/171010JST16

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Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
171013-1977	5,676	PR5234	561-112-26/561-146-3	170912JST11/171010JST16
171019-1978	5,924	PR5253	561-112-26/561-155-20	170912JST11/171018JST17
171019-1979	5,831	PR5256	561-112-26/561-155-20	170912JST11/171018JST17
171021-1980	5,699	PR5258	561-112-26/561-155-20	170912JST11/171018JST17
171021-1981	5,865	PR5259	561-112-26/561-155-20	170912JST11/171018JST17
171024-1982	5,782	PR5262	561-112-26/561-155-20	170912JST11/171018JST17
171025-1983	5,588	PR5264	561-112-26/561-158-24	170912JST11/171020JST17
171026-1984	5,630	PR5266	561-112-26/561-158-24	170912JST11/171020JST17
171027-1985	5,586	PR5268	561-112-26/561-158-24	170912JST11/171020JST17
171028-1986	5,741	PR5270	561-112-26/561-158-24	170912JST11/171020JST17
171028-1987	5,666	PR5271	561-112-26/561-158-24	170912JST11/171020JST17
171028-1988	5,764	PR5272	561-112-26/561-158-24	170912JST11/171020JST17
171102-1989	5,500	PR5277	561-145-7/561-176-17	171009JST13/171031JST16
171102-1990	5,714	PR5278	561-145-7/561-176-17	171009JST13/171031JST16
171103-1991	5,671	PR5279	561-145-7/561-176-17	171009JST13/171031JST16
171103-1992	5,523	PR5280	561-145-7/561-176-17	171009JST13/171031JST16
171104-1993	5,788	PR5281	561-145-7/561-176-17	171009JST13/171031JST16
171115-1994	5,699	PR5301	561-145-7/561-194-13	171009JST13/171115JST16
171116-1995	5,502	PR5302	561-145-7/561-194-13	171009JST13/171115JST16
171118-1996	5,834	PR5304	561-145-7/561-194-13	171009JST13/171115JST16
171118-1997	5,817	PR5305	561-145-7/561-194-13	171009JST13/171115JST16
171118-1998	5,776	PR5306	561-145-7/561-194-13	171009JST13/171115JST16
171124-1999	5,707	PR5314	561-145-7/561-201-15	171009JST13/171120JST16
171124-2000	5,730	PR5315	561-145-7/561-201-15	171009JST13/171120JST16
171125-2001	5,714	PR5316	561-145-7/561-201-15	171009JST13/171120JST16
171127-2002	5,469	PR5323	561-145-7/561-201-15	171009JST13/171120JST16
171130-2003	5,783	PR5337	561-145-7/563-3-23	171009JST13/171129JST16
171201-2004	5,737	PR5338	561-145-7/563-3-23	171009JST13/171129JST16
171201-2005	5,628	PR5339	561-145-7/563-3-23	171009JST13/171129JST16
171202-2006	5,610	PR5340	561-145-7/563-3-23	171009JST13/171129JST16
171202-2007	5,965	PR5341	561-145-7/563-3-23	171009JST13/171129JST16
171207-2008	5,392	PR5368	561-186-17/563-10-14	171109JST11/171204JST16
171208-2009	5,905	PR5373	561-186-17/563-10-14	171109JST11/171204JST16
171208-2010	6,033	PR5374	561-186-17/563-10-14	171109JST11/171204JST16
171208-2011	5,965	PR5375	561-186-17/563-10-14	171109JST11/171204JST16
180109-2012	5,775	PR5434	561-186-17/563-48-11	171109JST11/180108JST16
180109-2013	6,130	PR5441	561-186-17/563-48-11	171109JST11/180108JST16
180110-2014	5,950	PR5446	561-186-17/563-48-11	171109JST11/180108JST16
180110-2015	5,991	PR5447	561-186-17/563-48-11	171109JST11/180108JST16
180111-2016	5,632	PR5450	561-186-17/563-48-11	171109JST11/180108JST16
180119-2017	6,054	PR5470	561-186-17/563-57-1	171109JST11/180115JST16
180120-2018	5,804	PR5471	561-186-17/563-57-1	171109JST11/180115JST16
180120-2019	6,114	PR5472	561-186-17/563-57-1	171109JST11/180115JST16
180120-2020	5,642	PR5473	561-186-17/563-57-1	171109JST11/180115JST16
180121-2021	5,913	PR5474	561-186-17/563-57-1	171109JST11/180115JST16
180124-2022	5,830	PR5483	561-186-17/563-66-20	171109JST11/180123JST16
180125-2023	6,255	PR5484	561-186-17/563-66-20	171109JST11/180123JST16
180126-2024	5,861	PR5492	561-186-17/563-66-20	171109JST11/180123JST16
180127-2025	6,080	PR5493	561-186-17/563-66-20	171109JST11/180123JST16
180130-2026	5,971	PR5500	561-186-17/563-74-19	171109JST11/180129JST16
180130-2027	5,895	PR5504	561-186-17/563-74-19	171109JST11/180129JST16
180131-2028	5,856	PR5507	563-44-26/563-74-19	180104JST13/180129JST16
180131-2029	6,226	PR5509	563-44-26/563-74-19	180104JST13/180129JST16
180201-2030	6,077	PR5514	563-44-26/563-74-19	180104JST13/180129JST16
180214-2031	5,861	PR5562	563-44-26/563-90-18	180104JST13/180209JST16
180214-2032	5,861	PR5563	563-44-26/563-90-18	180104JST13/180209JST16
180215-2033	5,852	PR5564	563-44-26/563-90-18	180104JST13/180209JST16
180215-2034	6,070	PR5565	563-44-26/563-90-18	180104JST13/180209JST16
180216-2035	6,184	PR5566	563-44-26/563-90-18	180104JST13/180209JST16
180222-2036	6,165	PR5574	563-96-9/563-104-02	180214JST11/180220JPT16
180223-2037	5,913	PR5577	563-96-9/563-104-02	180214JST11/180220JPT16
180223-2038	5,926	PR5578	563-96-9/563-104-02	180214JST11/180220JPT16
180224-2039	6,444	PR5579	563-96-9/563-104-02	180214JST11/180220JPT16
180305-2040	5,821	PR5591	563-96-9/563-114-23	180214JST11/180302JPT16

Reclaimed Oil Load Log

Load Number	Quantity (gallons)	Bil of Lading	TDX Log Book #	TDX Sample ID
180306-2041	5,703	PR5599	563-96-9/563-114-23	180214JST11/180302JPT16
180308-2042	5,834	PR5601	563-96-9/563-114-23	180214JST11/180302JPT16
180309-2043	5,090	PR5602	563-96-9/563-114-23	180214JST11/180302JPT16
180310-2044	6,088	PR5618	563-96-9/563-114-23	180214JST11/180302JPT16
180314-2045	5,564	PR5615	563-96-9/563-128-07	180214JST11/180312JPT16
180315-2046	5,629	PR5619	563-96-9/563-128-07	180214JST11/180312JPT16
180316-2047	5,695	PR5621	563-96-9/563-128-07	180214JST11/180312JPT16
180316-2048	5,600	PR5622	563-96-9/563-128-07	180214JST11/180312JPT16
180320-2049	6,077	PR5623	563-96-9/563-137-27	180214JST11/180319JPT16
180320-2050	5,800	PR5624	563-96-9/563-137-27	180214JST11/180319JPT16
180321-2051	5,677	PR5625	563-96-9/563-137-27	180214JST11/180319JPT16
180323-2052	6,098	PR5626	563-96-9/563-137-27	180214JST11/180319JPT16
180323-2053	5,862	PR5628	563-96-9/563-137-27	180214JST11/180319JPT16
180327-2054	5,606	PR5629	563-44-26/563-144-3	180104JST13/180326JPT16
180329-2055	5,491	PR5635	563-44-26/563-144-3	180104JST13/180326JPT16
180330-2056	5,989	PR5633	563-44-26/563-144-3	180104JST13/180326JPT16
180330-2057	6,093	PR5634	563-44-26/563-144-3	180104JST13/180326JPT16
180403-2058	5,746	PR5648	563-44-26/563-150-10	180104JST13/180402JST16
180404-2059	5,679	PR5651	563-44-26/563-150-10	180104JST13/180402JST16
180405-2060	6,049	PR5655	563-44-26/563-150-10	180104JST13/180402JST16
180406-2061	5,457	PR5657	563-44-26/563-150-10	180104JST13/180402JST16
180406-2062	5,804	PR5658	563-44-26/563-150-10	180104JST13/180402JST16
180409-2063	5,397	PR5659	563-44-26/563-150-10	180104JST13/180402JST16
180427-2064	5,822	PR5714	563-121-07/563-176-27	180307JPT11/180425JPT16
180430-2065	5,840	PR5718	563-96-9/563-176-27	180214JST11/180425JPT16
180501-2066	5,864	PR5721	563-96-9/563-176-27	180214JST11/180425JPT16
180502-2067	5,819	PR5722	563-44-26/563-176-27	180104JST13/180425JPT16
180503-2068	5,926	PR5726	563-44-26/563-176-27	180104JST13/180425JPT16
180504-2069	5,793	PR5731	563-121-07/563-185-11	180307JPT11/180503JPT16
180507-2070	5,939	PR5740	563-121-07/563-185-11	180307JPT11/180503JPT16
180508-2071	5,947	PR5743	563-121-07/563-185-11	180307JPT11/180503JPT16
180509-2072	5,939	PR5746	563-121-07/563-185-11	180307JPT11/180503JPT16
180510-2073	5,877	PR5747	563-121-07/563-185-11	180307JPT11/180503JPT16
180521-2074	6,244	PR5777	563-121-07/563-200-16	180307JPT11/180518JPT16
180522-2075	6,260	PR5785	563-121-07/563-200-16	180307JPT11/180518JPT16
180523-2076	5,666	PR5787	563-121-07/563-200-16	180307JPT11/180518JPT16
180524-2077	5,908	PR5796	563-121-07/563-200-16	180307JPT11/180518JPT16
180607-2078	5,686	PR5829	563-121-07/564-14-27	180307JPT11/180605JST16
180607-2079	5,577	PR5830	563-121-07/564-14-27	180307JPT11/180605JST16
180607-2080	5,757	PR5836	563-121-07/564-14-27	180307JPT11/180605JST16
180607-2081	6,101	PR5839	563-121-07/564-14-27	180307JPT11/180605JST16
180609-2082	5,741	PR5840	563-121-07/564-14-27	180307JPT11/180605JST16
180612-2083	5,697	PR5848	563-121-07/564-23-9	180307JPT11/180612JST12
180612-2084	5,806	PR5849	563-121-07/564-23-12	180307JPT11/180612JST13
180613-2085	5,718	PR5850	563-121-07/564-21-18	180307JPT11/180611JST16
180614-2086	5,796	PR5851	563-121-07/564-21-18	180307JPT11/180611JST16
180615-2087	5,991	PR5852	563-121-07/564-21-18	180307JPT11/180611JST16
180616-2088	5,989	PR5854	564-9-20/564-21-18	180601JST12/180611JST16
180616-2089	5,895	PR5855	564-9-20/564-21-18	180601JST12/180611JST16
180628-2090	6,218	PR5894	564-9-20/564-38-7	180601JST12/180626JST16
180630-2091	6,320	PR5897	564-9-20/564-38-7	180601JST12/180626JST16
180630-2092	5,997	PR5898	564-9-20/564-38-7	180601JST12/180626JST16
180702-2093	5,368	PR5902	564-9-20/564-42-13	180601JST12/180629JST36
180703-2094	5,593	PR5903	564-9-20/564-42-13	180601JST12/180629JST36
180704-2095	5,775	PR5907	564-9-20/564-46-27	180601JST12/180702JST16
180704-2096	5,872	PR5908	564-9-20/564-46-27	180601JST12/180702JST16
180704-2097	6,070	PR5909	564-9-20/564-46-27	180601JST12/180702JST16
180704-2098	5,121	PR5910	564-9-20/564-42-13	180601JST12/180629JST36
180705-2099	5,848	PR5911	564-9-20/564-46-27	180601JST12/180702JST16
	Total Oil Gallons			
	8,640.237			