SDMS DOCID # 1149963

City of Santa Fe Springs
Fire Department
11300 Greenstone Ave. • CA • 90670-4619 • (562) 944-9713 • Fax (562) 941-1817 • www.santafesprings.org

April 20, 2005

Peter Rooney
Bloomfield Partners II, LLC
18802 Bardeen Avenue
Irvine, CA 92612

SUBJECT: FINAL GRADING ENVIRONMENTAL OVERSIGHT REPORT – BLOOMFIELD II PROPERTY, 10806 BLOOMFIELD AVENUE, SANTA FE SPRINGS, CA 90760

The Santa Fe Springs Fire Department has completed the review of the Final Grading Environmental Oversight Report prepared by Ninyo & Moore Consultants on April 12, 2005. This report fulfills the requirement for a final Soil Management Plan (SMP) report described in the SMP approval letter from our department dated July 2, 2004. Please note that this report does not fulfill any requirements pertaining to the abandonment of oil wells at the site. In particular, the oil wells designated as "Baker 5" and "Baker 27".

Any questions regarding this matter should be directed to Tom Hall, Environmental Protection Specialist at (562) 906-3815.

Sincerely,

Thomas Hall
Environmental Protection Specialist

cc: Erik Wickland, City of Santa Fe Springs Building Department
Wayne Morrell, Planning Department
J.T. Lui, Los Angeles RWQCB
Steven Hariri, Los Angeles RWQCB
Paul Roberts, Ninyo & Moore

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

FINAL GRADING
ENVIRONMENTAL OVERSIGHT REPORT
BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PREPARED FOR:
Bloomfield Partners II, LLC
18802 Bardeen Avenue
Irvine, California 92612

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

April 12, 2005
Project No. 205372004

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

April 12, 2005
Project No. 205372004

Mr. Peter Rooney
Bloomfield Partners II, LLC
18802 Bardeen Avenue
Irvine, California 92612

Subject: Final Grading
Environmental Oversight Report
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Rooney:

Ninyo & Moore is pleased to present this report documenting the environmental monitoring that was conducted during grading activities for the subject property (site). Should you require clarification of any of our findings and conclusions, please contact the undersigned.

Sincerely,
NINYO & MOORE

Paul A. Roberts, P.G., R.E.A. I/II
Senior Environmental Geologist

PROFESSIONAL GEOLOGIST
PAUL A. ROBERTS
NO. 6897
EXP. 1-06
STATE OF CALIFORNIA

PAR/emp

Distribution: (5) Addressee
(1) Mr. Tom Hall, Santa Fe Springs Fire Department
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory, LLP

TABLE OF CONTENTS

Page

1. INTRODUCTION 1
2. OBJECTIVE 1
3. BACKGROUND 1
4. SOIL MANAGEMENT PLAN 2
   4.1. Environmental Issues Resolved Prior to Grading Activities 3
      4.1.1. Pipeline Removal 3
      4.1.2. Stained Soil 4
      4.1.3. Abandonment/Relocation of Groundwater Monitoring Wells 5
   4.2. Environmental Issues Discovered During Grading Activities 5
      4.2.1. Transite Pipelines 6
      4.2.2. Area 1 6
      4.2.3. Abandonment of Commercial Groundwater Wells 7
5. FORMER PLEGEL OIL COMPANY LEASE 9
   5.1. AST/Industrial Wastewater Unit Closure 10
   5.2. Mitigation of Petroleum Hydrocarbon and Metal Impacted Soil 11
6. CONCLUSIONS 11
7. RECOMMENDATIONS 12
8. LIMITATIONS 12
9. REFERENCES 14

Figures

Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Site Plan with Historical Features
Figure 4 – Site Plan with Proposed Buildings
Figure 5 – Former Plegel Oil Company Lease Property

Appendices

Appendix A – Revised Soil Management Plan
Appendix B – Geophysical Map
Appendix C – Pertinent Information Regarding Groundwater Monitoring Wells
Appendix D – Pertinent Information Regarding Area 1
Appendix E – Pertinent Information Regarding Commercial Groundwater Wells
Appendix F – Pertinent Information Regarding Former Plegel Oil Company Lease

1. INTRODUCTION

Bloomfield Partners II, LLC, authorized Ninyo & Moore to monitor grading activities for environmental issues at the Bloomfield II Property located at 10806 Bloomfield Avenue in Santa Fe Springs, California (site; Figure 1). Work was conducted under the direction of the Santa Fe Springs Fire Department (SFSFD), and in accordance with the approved Revised Soil Management Plan (SMP) prepared by Ninyo & Moore dated June 17, 2004. The SMP was prepared to provide environmental procedures and criteria during grading operations.

Contractors involved with the redevelopment activities included Oltmans Construction Company of Whittier, California (general contractor); Earth Basics of Atwood, California (grading contractor); Norcal Engineering (Norcal) of Los Alamitos, California (geotechnical advisors); Reliable Equipment Rental, Inc. (Reliable), of Buena Park, California (hazardous materials handling); and Thienes Engineering, Inc., of La Mirada, California (surveyors).

2. OBJECTIVE

The objective of the work described herein was to monitor grading activities for possible environmental issues in accordance with the approved SMP.

3. BACKGROUND

The site consists of approximately 20 acres that was historically used for oil production and storage (Figure 2). Cenco Refining Company (Cenco), who owned and operated the Cenco Refinery located west of the site and beyond Bloomfield Avenue, later used the site for the refining and storage of coke and the storage of refined petroleum products. As discussed in the SMP, Arcadis was retained by Cenco to complete soil and groundwater investigations and characterization, and to remediate impacted soils. The environmental investigations were conducted on the larger portion of the site, referred to on Figure 2 as the "Bloomfield II Property." At the time of these activities, a small area in the northwestern corner of the site was being leased by the Plegel Oil Company (Plegel) for the production and storage of crude oil (Figure 2; referred to herein as the

"Plegel lease" or the "Plegel lease property"). This area was not included in the Arcadis investigations.

The work completed by Arcadis was completed under the direction and oversight of the Regional Water Quality Control Board, Los Angeles Region (RWQCB) and included conducting soil, vapor, groundwater, and methane investigations; abandonment of oil wells; soil remediation; and preparing a risk assessment. Based on the results of these investigations, impacted soil discovered in the majority of the site had been successfully remediated. Based on the results of these activities, the RWQCB issued a No Further Action (NFA) letter dated April 15, 2004. The SMP (see Appendix A) contains a more detailed description of the historical land uses, environmental investigations/remediation, and a copy of the RWQCB NFA letter.

Prior to the acquisition of the site by Bloomfield Partners II, LLC, Ninyo & Moore completed a subsurface investigation in the Plegel lease property to further assess whether impacted soils exist, and if so, to assess the extent. Based on the results, a small area of crude oil and lead-impacted soil was discovered in the Plegel lease property. The vertical and lateral extent was defined as limited to the area beneath the existing aboveground storage tanks (ASTs) and industrial wastewater unit located in this area. Further discussion of the investigations, closure of the ASTs and industrial wastewater unit, and mitigation of the impacted soils is presented in Section 5.

4. SOIL MANAGEMENT PLAN

The SMP was prepared in accordance with the City of Santa Fe Springs Draft Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, "Draft 64," (referred to herein as the "SFSFD guidelines") to manage "unknown environmental features" that might be encountered during grading activities (Appendix A). Based on the historical land use, unknown environmental features that might be encountered during grading include features such as stained and/or odorous soil, sumps, clarifiers, septic pits, underground storage tanks (USTs), petroleum pipelines, etc. The SMP outlines the proposed scope of work to investigate and remediate such features, if encountered. As discussed below, environmental issues resolved prior to the grading

activities included the removal of historical petroleum pipelines, an investigation of surfically stained areas, and the abandonment of two groundwater monitoring wells. Environmental issues discovered and subsequently resolved during grading activities included the removal of transite pipelines, the investigation of a stained and odorous area (referred to herein as Area 1), and the abandonment of two commercial groundwater wells.

Since the impacted soil discovered at the Plegel lease property was a "known feature," soil management/mitigation at the Plegel lease property was completed as part of the closure activities associated with the ASTs and industrial wastewater unit (see Section 5). Groundwater beneath the site has been reported at depths ranging from approximately 85 to 95 feet below the ground surface (bgs).

4.1. Environmental Issues Resolved Prior to Grading Activities

Prior to grading activities, a number of potential environmental issues were resolved. The following presents these features and the scope of work completed to mitigate the issues.

4.1.1. Pipeline Removal

On August 2 through 4, 2004, Earth Basics cleared some of the debris throughout the site and loosened the ground using a bulldozer in preparation for grading activities. The bulldozer was used to rip the upper two feet of soil throughout the site. Ninyo & Moore used the results of a geophysical survey that had been completed a few weeks earlier by Geovision, to locate, cut, and cap pipelines that were shown to exit the site. A copy of the Geovision geophysical survey map with pipeline locations is provided in Appendix B.

As presented on the geophysical map and as observed during field investigations by Ninyo & Moore, all of the pipelines that exited the site were observed to have been previously cut at different distances into the site. Little to no liquids were encountered and Lower Explosion Level (LEL) vapor readings were well below standards. As per the

SMP, all exiting pipelines were capped by welding a plate over the pipeline. The geophysical survey also showed discontinuous pipelines throughout the interior portions of the site. These pipelines were manually removed during the loosening of the site soils, and the locations, as shown on the geophysical survey map, were discovered to have been very accurate. No staining or odorous soil was noted in the vicinity of the historical pipelines, and therefore, no sampling was completed at this time.

4.1.2. Stained Soil

After loosening the on-site soils, Ninyo & Moore walked the entire site looking for areas of stained and/or odorous soils. A photoionization detector (PID) was also used as a screening tool. Three suspect areas were discovered. One of these areas was located in the southeastern portion of the site and was noted as a white, chalky, striated material (Figures 3 and 4). Based on the amount of concrete used at the site, Ninyo & Moore's experience at concrete batch plants, and the location of the materials (out of the way of any former activities at the site), it appeared that the material was a fine-grained cement, possible associated with a former wash-down area previously used by Cenco.

The other two areas were located in the northeastern portion of the site. These suspect areas contained a darker coloring than the surrounding soils (Figures 3 and 4). No odors or elevated PID readings (readings were zero) were noted in these areas. Ninyo & Moore used a backhoe, supplied by Reliable, to further investigate these areas. Both areas were discovered to be limited in area (less than 50 feet in diameter) and depth (less than 1 foot deep). It appeared, based on historical land use, that the darker coloring was apparently due to interbedded crushed asphalt or possibly residue coke from the former Cenco operations. Because these materials were limited in area and apparently did not pose an environmental or health concern, no samples were collected.

4.1.3. Abandonment/Relocation of Groundwater Monitoring Wells

Three groundwater monitoring wells (designated MW-106, MW-107, and MW-203) were located on site and were associated with a larger network of groundwater monitoring wells used by Cenco to monitor groundwater quality in the vicinity of the refinery (Figures 3 and 4). Because two of the groundwater monitoring wells (MW-106 and MW-107) were located within the footprint of proposed buildings, Ninyo & Moore discussed with and obtained authorization from the RWQCB to abandon the wells (Figure 4). These wells are planned to be reinstalled at a more convenient location following completion of the redevelopment activities (Figure 4). As presented in the Documentation of Groundwater Well Destruction report dated September 28, 2004, that was provided to the RWQCB, the wells were abandoned on August 9, 2004, in accordance with the Los Angeles County Department of Health Services (DOHS) approved permits. Well MW-203 was located within a proposed parking lot, and therefore, was not abandoned. The casing of this well is planned to be adjusted to current grade prior to the placement of asphalt in the parking area. A copy of the Documentation of Groundwater Well Destruction report is presented in Appendix C. This report presents the location of the former wells, proposed new locations, copies of the approved DOHS permits, and documentation of well destruction activities.

Following relocation of these wells, Ninyo & Moore will submit a documentation report to the RWQCB and the SFSFD presenting the location of the new wells, construction details, and survey data.

4.2. Environmental Issues Discovered During Grading Activities

Grading activities commenced on September 7, 2004, and continued through the end of the month. During this time, Ninyo & Moore was on call with the general contractors to conduct monitoring and visual inspections, if needed. As "unknown environmental features" were encountered, such as the transite pipelines, stained and odorous soil (referred to as Area 1), and the discovery of historical commercial groundwater wells discussed below, Ninyo &

Moore notified the SFSFD, assessed the environmental conditions, and conducted additional investigations and/or remediation. The following sections outline the scope of work completed to resolve these issues.

4.2.1. Transite Pipelines

On October 1, 2004, Ninyo & Moore was notified that Reliable had discovered four "joints" of transite pipeline at the site. Each joint was described as 13 feet in length by 12 inches in diameter. Reliable removed the pipeline and wrapped the materials in Visqueen plastic. Ninyo & Moore retained Marcor Remediation, Inc. (Marcor), of Cerritos, California, a state-licensed abatement contractor to remove the pipelines from the site. The pipelines were removed from the site on October 7, 2004, and disposed at Azusa Land Reclamation in Azusa, California.

4.2.2. Area 1

On September 15, 2004, Ninyo & Moore was notified by Oltmans that the grading contractor had encountered an area of stained and odorous soil in the southeastern portion of the site (Figures 3 and 4). The grading contractor was notified by Oltmans to discontinue grading in the area until Ninyo & Moore assessed the soils. On September 16, 2004, Ninyo & Moore visited the site and cordoned off the area of concern, referred to as Area 1 on Figures 3 and 4. On September 16 and 17, 2004, Ninyo & Moore further assessed the extent of the stained and odorous soil using visual, olfactory, and PID readings. The materials appeared as a dark brown, silty, fine sand with a slight sewer odor. PID readings indicated low concentrations (most readings were less than 1 part per million [ppm], with one reading up to 1.4 ppm). The extent of the impacted soils was assessed using on-site equipment and measured approximately 51 feet in a north-south direction by approximately 47 feet in an east-west direction, with depths ranging from approximately 4 to 10 feet deep. Ninyo & Moore superimposed the location of Area 1 on site plans that showed historical features and pipelines (Figure 3). Based on our review, no historical activities such as oil production, storage, or refining had taken place

in this area. However, Area 1 appeared to have been located in the vicinity of two former railroad spurs (Figure 3). Although the source of the impacted soil was unknown, based on the location of the staining, it appears that the impacted soil may have been a result of leaking materials from rail cars.

A soil sample (designated Area1-1) of the most stained and odorous soils was collected for chemical analyses using EPA Method No. 5035 from the location shown on Figure 3. As per the SMP, soil sample Area1-1 was analyzed for total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons carbon chain C_{10}-C_{32} (TPHcc, which includes the total petroleum hydrocarbon as diesel fuel C_{13}-C_{22} [TPHd] range and oil C_{23}-C_{32} [TPHo] range), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and Title 22 metals in general accordance with EPA Method Nos. 8015 (modified), 8082, 8260B, 8270C, and 6010/7000 series. Laboratory results of sample Area1-1 indicated no detectable concentrations of TPHg, VOCs, and SVOCs, no detectable to low concentrations of metals (below the Preliminary Remediation Goal for residential land use [PRGr] values and background levels for arsenic), and low concentrations of TPHd (126 milligrams per kilogram [mg/kg], well below the SFSFD guideline of 7,500 mg/kg), TPHo (640 mg/kg, well below the SFSFD guideline of 36,000 mg/kg), and PCBs (0.056 mg/kg Aroclor 1254 and 0.033 mg/kg of Aroclor 1260, well below the PRGr value of 0.22 mg/kg). Laboratory reports are provided in Appendix D. Based on the laboratory results, these materials would not be considered an environmental or health threat, and therefore, no further investigations or remediation were conducted.

4.2.3. Abandonment of Commercial Groundwater Wells

On September 24, 2004, Ninyo & Moore was notified by Oltmans that two commercial groundwater wells were discovered at the site. Ninyo & Moore notified the SFSFD and inspected the wells. Ninyo & Moore designated the wells as GW-1 and GW-2 (Figure 3). Well GW-1 was constructed of 12-inch steel casing that was open to a depth of

approximately 143 feet bgs; with groundwater being encountered at a depth of approximately 94 feet bgs. Well GW-2 was constructed of 16-inch casing and was full of sand. The upper six feet of casing associated with well GW-2 had been damaged and removed during grading activities. Reliable constructed a casing sleeve that was placed around the damaged casing and was installed to ground surface.

Ninyo & Moore contacted the DOHS and discussed possible preliminary investigations that could be completed to assess the construction details of the wells. As per the conversations, Ninyo & Moore subsequently attempted to clean out well GW-1 by surging the well casing and purging standing groundwater. Purged groundwater was placed in 55-gallon drums and sampled. Laboratory results indicated no detectable concentrations of TPHg and VOCs, and therefore the water was disposed of on-site. This well was later video logged. A copy of the video log report and laboratory reports are provided in Appendix E.

The sand inside well GW-2 was drilled using a small-diameter hollow-stem auger to assess the total depth of the well. Based on this result, the well was assessed to be approximately 190 feet bgs. The results of these initial investigations and proposed abandonment activities, along with the well destruction permits, were issued to the DOHS in a letter dated October 13, 2004 (Appendix E).

After further conversations with the DOHS and drilling contractors, Ninyo & Moore discussed a modified abandoning procedure with the DOHS. The discussion included abandoning the wells without perforating the well casing. Upon verbal approval, Ninyo & Moore prepared a telephone documentation letter dated December 16, 2004, outlining the approved abandonment activities (Appendix E).

On January 25 and 26, 2005, Ninyo & Moore completed the destruction of the wells as per our letter dated December 16, 2004, and under the direction and oversight of the DOHS. Following completion of these activities, a decommissioning report dated Feb-

ruary 18, 2005, was prepared documenting the abandonment activities. Pertinent information regarding the commercial groundwater wells, including previous letters, a copy of the approved destruction permit, laboratory reports, and decommissioning report, are provided in Appendix E.

5. FORMER PLEGEL OIL COMPANY LEASE

Plegel Oil Company formerly used the northwestern corner of the site to produce and store crude oil. This area included one active production well (Hathaway Company "Baker" 27) and a decommissioned and abandoned oil well (Hathaway Company "Baker" 5). As part of the redevelopment activities, oil well "Baker" 5 has since been reabandoned in accordance with the Division of Oil, Gas, and Geothermal Resources (DOGGR) and SFSFD guidelines, and "Baker" 27 is in the process of being abandoned.

The Plegel property formerly contained three small ASTs (two containing crude oil and one empty), an older oil/water separator, a newer oil/water separator, two wastewater separators, and a clarifier (Figure 5). Crude oil was pumped from "Baker" 27 and piped to the newer oil/water separator, via underground and aboveground piping (Figure 5). The older oil/water separator was recently taken off line and replaced with the newer oil/water separator. Oil from the separator was pumped into the two ASTs for storage. The ASTs were relatively small, holding approximately 250 barrels of crude oil each (or approximately 10,500 gallons per AST). According to Mr. Wayne Plegel, owner of Plegel Oil Company, the empty AST was never used to store hazardous materials on site. Based on this information, four ASTs (designated T1 through T4 on Figure 5) were closed as part of the investigations described herein. The ASTs that were closed included the two crude oil tanks, the older oil/water separator, and the newer oil/water separator.

The wastewater generated from the pumping process was diverted through a three stage wastewater system that clarified the water before it was discharged to the city storm drain. Most of the piping associated with the wastewater system was discovered to be aboveground (Figure 5). The first stage of the wastewater system was a metal aboveground tank (referred to as the first stage

wastewater separator or T6 on Figure 5). The second stage consists of a concrete lined, below-ground "sump" (referred to as the second stage wastewater separator or T5 on Figure 5). During the investigations described herein, this "sump" was discovered to have actually been the cellar for "Baker" 5. The third stage of the wastewater treatment unit was the clarifier located north of the crude oil ASTs (referred to as T7 on Figure 5). Based on this information, the industrial wastewater unit that was closed included the first stage wastewater separator, the second stage wastewater separator, and the clarifier.

As part of the real estate due diligence, in December 2003 and January 2004, Bloomfield Partners II, LLC, retained Ninyo & Moore to conduct a subsurface investigation in the vicinity of the ASTs and wastewater treatment area. As presented on Figure 5, Ninyo & Moore advanced 14 soil borings to depths of up to 65 feet bgs. Laboratory results indicated concentrations of petroleum hydrocarbons and lead that exceeded the SFSFD guideline. Ninyo & Moore prepared and submitted a report dated February 13, 2004, to the SFSFD documenting these findings.

5.1. AST/Industrial Wastewater Unit Closure

Prior to commencement of closure activities, Ninyo & Moore submitted a General Work Plan dated September 21, 2004, and an addendum to the work plan dated October 5, 2004, to the SFSFD for review and approval. Following approval of these documents, the ASTs and industrial wastewater unit were removed under the direction and oversight of the SFSFD in a staged manner during November and December 2004 and January 2005. Confirmation samples were collected and analyzed. Based on the results of the confirmation samples and the previous soil borings discussed above, five areas containing elevated concentrations of petroleum hydrocarbons and certain metals (i.e., lead and/or copper) exceeding the SFSFD guidelines were discovered. Because these areas appeared to be limited vertically and laterally, Ninyo & Moore requested that the soils be removed by excavation in the AST/Industrial Wastewater Unit Closure Report and Remedial Action Plan. A copy of the approved report is presented in Appendix F. Also included in Appendix F is a copy of the Santa Fe Springs

Building Department (SFSBD) sewer permit that was signed by the SFSBD following the capping of the sewer pipeline associated with the clarifier.

5.2. Mitigation of Petroleum Hydrocarbon and Metal Impacted Soil

On February 17, 2005, the five areas containing elevated concentrations of petroleum hydrocarbons and/or metals were excavated as per the approved AST/Industrial Wastewater Unit Closure Report and Remedial Action Plan. Confirmation samples were collected and laboratory results indicated no detectable to low concentrations of the chemicals of concern. Based on this information, Ninyo & Moore submitted an Excavation Report outlining the results and requesting that a closure letter be issued by the SFSFD. Following review of the report, the SFSFD issued a closure letter dated March 8, 2005.

Following abandonment and capping of oil well "Baker" 5, the excavations were backfilled and compacted (as part of the larger grading activities). As per the SFSFD guidelines, soils stained with petroleum hydrocarbons were covered with at least 2 feet of unstained soil before grading was concluded. Approximately 178 tons of impacted soils that were excavated from the Plegel property were transported to TPS Technologies, Inc., of Adelanto, California, for recycling. Copies of the Excavation Report, Closure Letter, and non-hazardous manifests are presented in Appendix F.

6. CONCLUSIONS

Based on the information presented herein, Ninyo & Moore presents the following conclusions:

- Ninyo & Moore completed environmental monitoring during grading activities in accordance with the approved SMP.
- Petroleum hydrocarbon pipelines were successfully removed prior to and during grading activities. Little to no staining or liquids were discovered and therefore no soil sampling was conducted.

- Three areas of discolored soils were discovered prior to grading activities. Because these areas were limited in area, had no apparent odor, and no PID readings, the areas apparently did not pose an environmental or health concern, and therefore, no samples were collected.

- Two groundwater monitoring wells (MW-106 and MW-107) were abandoned due to their location with respected to future site building footprints. The work was completed under the direction and oversight of the RWQCB. These wells are planned to be reinstalled at new locations following completion of the construction activities. Following relocation activities, a copy of the documentation letter that will be submitted to the RWQCB will be forwarded to the SFSFD.

- During grading activities, four "joints" of transite pipeline were discovered at the site and successfully mitigated by removal and off-site disposal.

- An area of stained and odorous soil (designated Area 1) was discovered during grading. Laboratory results of a soil sample collected from this material indicated no detectable to low concentrations of the chemicals analyzed. Based on this information, remediation of these soils was not deemed necessary.

- Two commercial groundwater wells were discovered and successfully abandoned. Work was completed under the direction, oversight, and approval of the DOHS.

- The former ASTs and wastewater treatment unit in the former Plegel lease property were decommissioned and removed from the site. Petroleum hydrocarbon and metal impacted soils discovered in this area were characterized and mitigated by excavation and removal. The SFSFD subsequently issued a closure letter for the ASTs and wastewater treatment unit.

7. RECOMMENDATIONS

Based on the information provided in this report, Ninyo & Moore recommends no further investigations or remediation at this time. Ninyo & Moore requests that the SFSFD issue a closure letter for the site.

8. LIMITATIONS

The services outlined in this report have been conducted in a manner generally consistent with current regulatory guidelines. No other warranty, expressed or implied, is made regarding the professional opinions presented in this report. Ninyo & Moore's opinions are based on an analy-

sis of observed conditions and on information obtained from third parties. It is likely that variation in soil conditions may exist which were beyond the scope of work for the closure activities.

The samples collected and chemically analyzed and the observations made are believed to be representative of the general area evaluated; however, conditions can vary significantly between sampling locations. The interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and measure the concentration of certain chemical or physical constituents in samples collected from the site. The analyses have been conducted by an independent laboratory which is accredited by the United States EPA and/or certified by the State of California to conduct such analyses. Ninyo & Moore has no involvement in, or control over, such analyses and has no means of confirming the accuracy of laboratory results. Ninyo & Moore, therefore, disclaims any responsibility for inaccuracy in such laboratory results.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions.

9. REFERENCES

Ninyo & Moore, 2004a, Results of Subsurface Investigation, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Report prepared for SARES-REGIS Group, Irvine, California, dated February 13.

Ninyo & Moore, 2004b, Revised Soil Management Plan, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Report prepared for Bloomfield Partners II, LLC, Irvine, California, dated June 17.

Ninyo & Moore, 2004c, General Work Plan, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Report prepared for Santa Fe Springs Fire Department, Santa Fe Springs, California, dated September 21.

Ninyo & Moore, 2004d, Addendum to the General Work Plan dated September 21, 2004, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Report prepared for Santa Fe Springs Fire Department, Santa Fe Springs, California, dated October 5.

Ninyo & Moore, 2004e, Transmittal of Well Decommissioning Permits, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Letter report prepared for the Los Angeles County Department of Health Services, Baldwin Park, California, dated October 13.

Ninyo & Moore, 2004f, Documentation of Telephone Conversation, Well Decommissioning, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Letter report prepared for the Los Angeles County Department of Health Services, Baldwin Park, California, dated December 16.

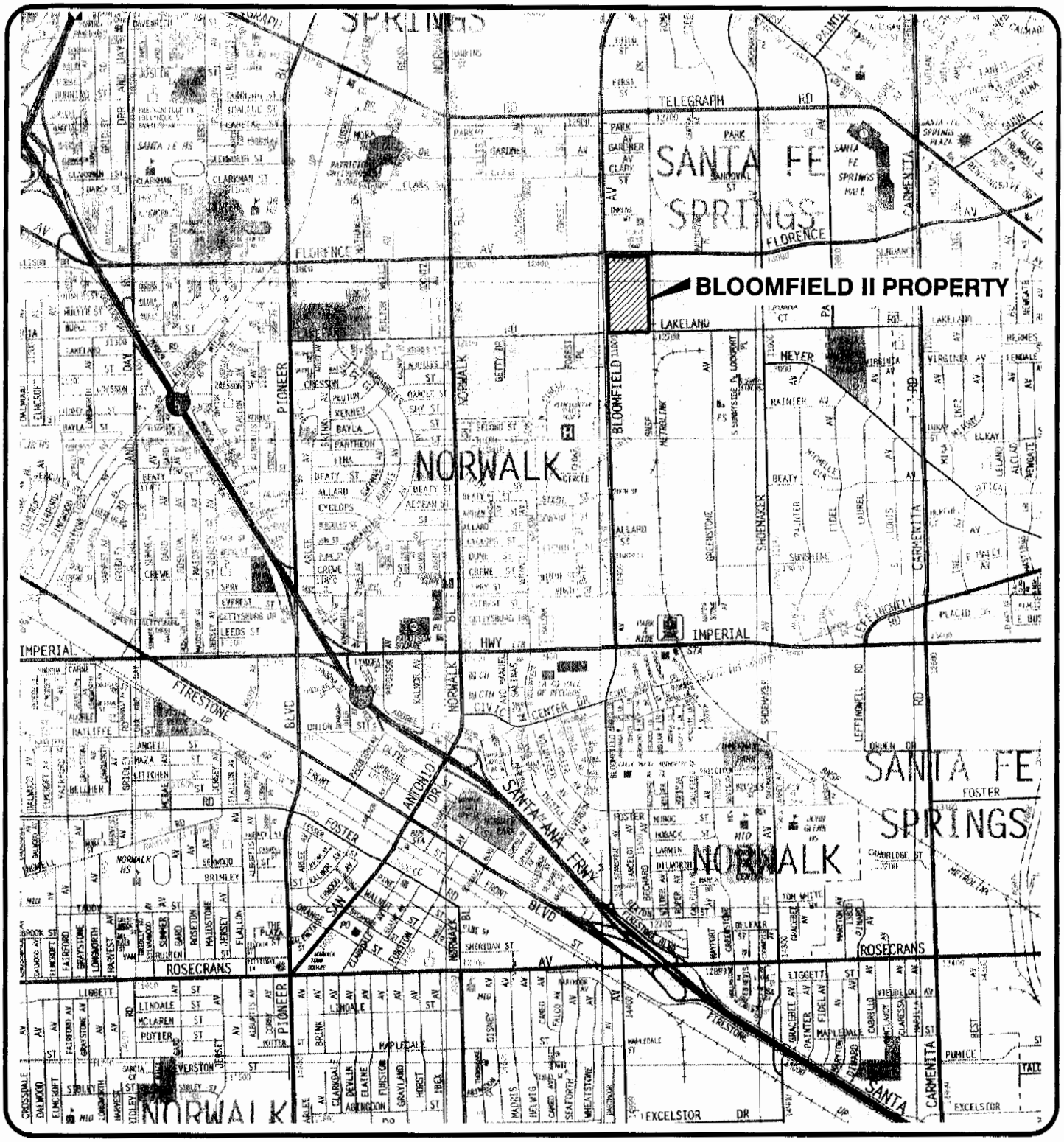
Ninyo & Moore, 2005a, AST/Industrial Wastewater Unit Closure Report and Remedial Action Plan, Bloomfield II Property, Former Plegel Oil Company Lease, 12600 Florence Avenue, Santa Fe Springs, California: Report prepared for Santa Fe Springs Fire Department, Santa Fe Springs, California, dated February 8.

Ninyo & Moore, 2005b, Documentation of Commercial Well Decommissioning, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Letter report prepared for the Los Angeles County Department of Health Services, Baldwin Park, California, dated February 18.

Ninyo & Moore, 2005c, Excavation Report, Bloomfield II Property, Former Plegel Oil Company Lease, 12600 Florence Avenue, Santa Fe Springs, California: Report prepared for Santa Fe Springs Fire Department, Santa Fe Springs, California, dated February 25.

Santa Fe Springs Fire Department (SFSFD), 2005, Industrial Wastewater Pretreatment Equipment Closure Certification for the Two-Stage Waste Water Separator and Three-Stage

Clarifier at 12600 Florence Avenue: Closure letter prepared for Ninyo & Moore, Irvine, California, dated March 8.



205372-A1.DWG

REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

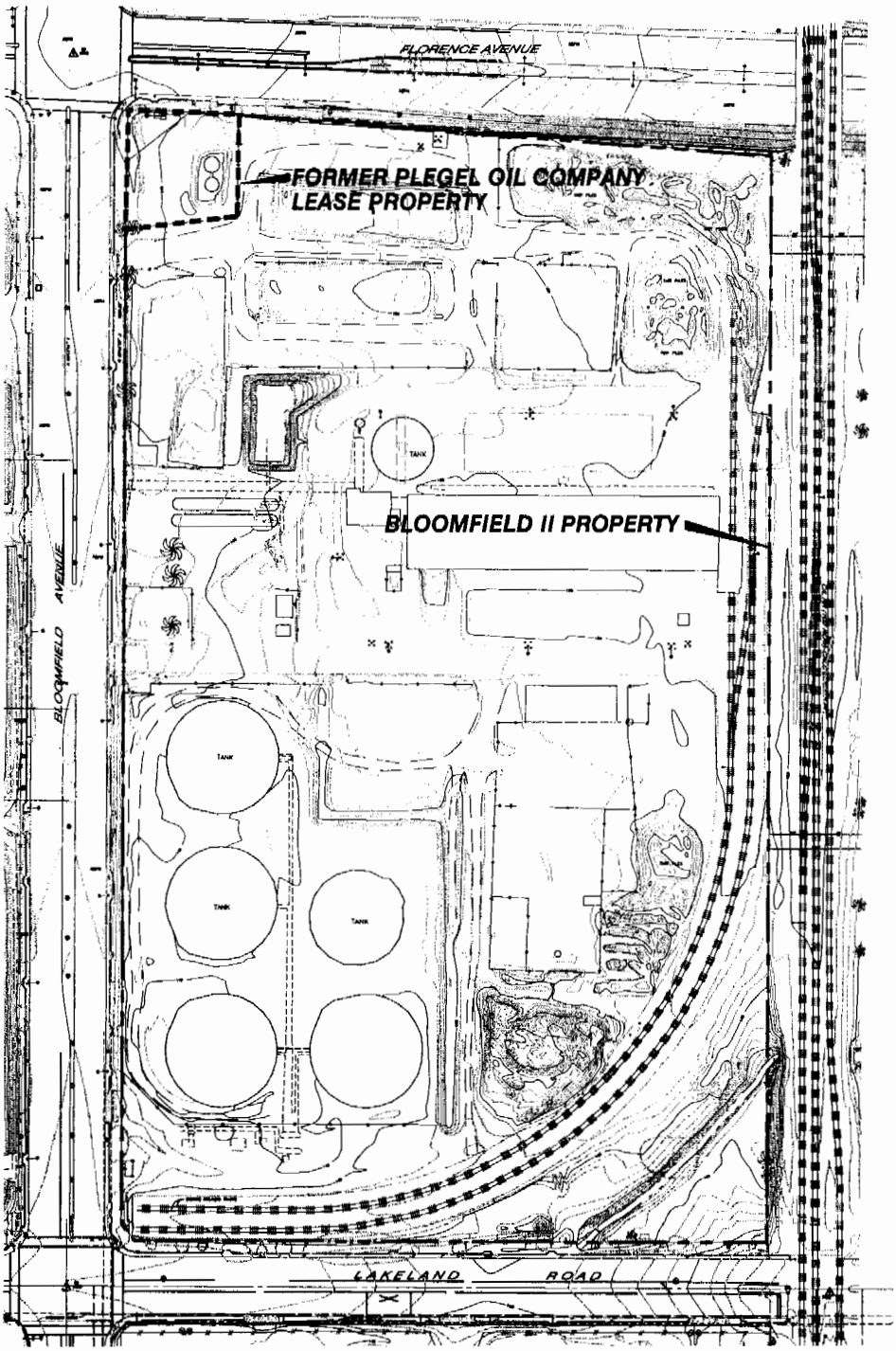
APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372004	4/2005	1



0 200 400

APPROXIMATE SCALE IN FEET

REEFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

- - - - BLOOMFIELD II PROPERTY BOUNDARY
- - - - - - FORMER PLEGEL OIL COMPANY LEASE PROPERTY

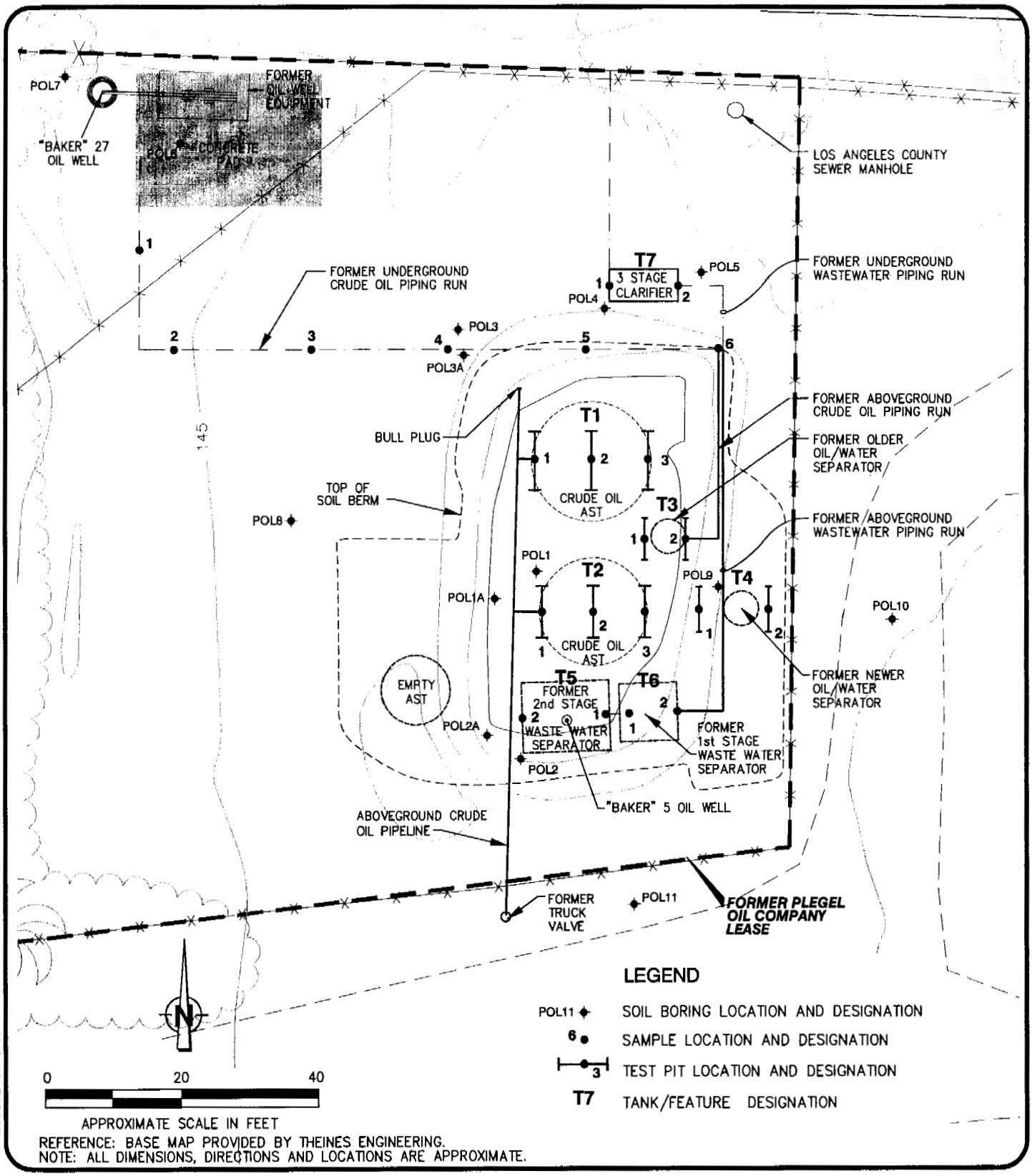
205372-A3.DWG

Ninyo & Moore

SITE PLAN

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372004	4/2005	2



REFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

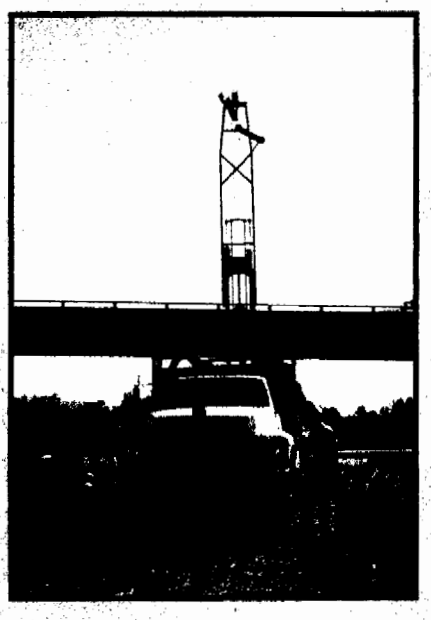
FORMER PLEGAL OIL COMPANY LEASE PROPERTY

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372004	4/2005	5

APPENDIX A

REVISED SOIL MANAGEMENT PLAN



City of Santa Fe Springs
Fire Department
Environmental Protection Division

APPROVED FOR THE FOLLOWING PROGRAMS

- ☐ CUPA Programs
- ☐ Industrial Waste
- ☐ UST Article 80
- ☐ Domestic Waste Only
- ☐ Approval Not Required
- ☒ Site Mitigation

Subject to field inspection and required modifications hereon, conditions in correspondence and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any regulation of the law.

By [signature] Date 6/29/04

SMP Submitted per Requirement in Both Development Plan Approval & RWQCB NFA. Final Report Due after Grading Completed.

Geotechnical and Environmental Sciences Consultants

Ninyo & Moore

REVISED SOIL MANAGEMENT PLAN
BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PREPARED FOR:
Bloomfield Partners II, LLC
18802 Bardeen Avenue
Irvine, California 92612

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

June 17, 2004
Project No. 205372001

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

June 17, 2004
Project No. 205372001

Mr. Peter Rooney
Bloomfield Partners II, LLC
18802 Bardeen Avenue
Irvine, California 92612

Subject: Revised Soil Management Plan
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Rooney:

Ninyo & Moore has prepared the enclosed Revised Soil Management Plan for grading activities at the Bloomfield II property located at 10806 Bloomfield Avenue in the city of Santa Fe Springs, California. We appreciate the opportunity to provide service on this project. Should you have any questions or comments, please contact me at your convenience.

Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

REGISTERED GEOLOGIST
PAUL A. ROBERTS
No 6897
STATE OF CALIFORNIA

PAR/emp

Distribution: (3) Addressee
(1) Mr. Tom Hall, Santa Fe Springs Fire Department
(1) Mr. Phil Fitzwater, Iris Environmental
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory LLP
(1) John J. Gregory, Esq., Farella Braun + Martel LLP

TABLE OF CONTENTS

Page

1. INTRODUCTION 1
2. PREVIOUSLY USED AND PROPOSED CLEANUP STANDARDS 2
3. BACKGROUND 3
   - 3.1. Environmental Reports for the Bloomfield II Property 4
     - 3.1.1. Soils 4
     - 3.1.2. Stockpiled Soils 5
     - 3.1.3. Groundwater 5
     - 3.1.4. Risk Assessment 6
     - 3.1.5. Sump and Suction Cans 7
     - 3.1.6. Soil Gas Survey 8
   - 3.2. Subsurface Investigation Associated with the Plegel Lease 9
4. PURPOSE 9
5. PROGRAM PARTICIPANTS 10
   - 5.1. Ninyo & Moore Participants 10
   - 5.2. Owner's Participants 10
   - 5.3. General Contractor's Participants 10
6. INDIVIDUAL RESPONSIBILITIES 11
   - 6.1. Ninyo & Moore SMP Field Coordinator 11
   - 6.2. Ninyo & Moore SMP Program Manager 11
   - 6.3. General Contractor Project Manager or Project Site Superintendent 11
   - 6.4. General Responsibilities 12
7. ENVIRONMENTAL ACTIVITIES FOR SITE GRADING AND EXCAVATION 12
   - 7.1. Pre-Grading Activities 12
     - 7.1.1. Health and Safety Plan (HSP) 13
     - 7.1.2. Oil Well Abandonment 13
     - 7.1.3. Pre-Grading Meeting 13
   - 7.2. During Grading and Excavation Activities 13
     - 7.2.1. Dust and Odor Control 13
     - 7.2.2. Notification and Identification of Unknown Environmental Features 14
   - 7.3. Site-Specific Soil Management Protocols 14
     - 7.3.1. Stained and/or Odorous Soil, or Other Unregulated Feature 15
     - 7.3.2. Petroleum Pipelines 16
     - 7.3.3. Regulated Features 16
     - 7.3.4. Stockpile Sampling 17
   - 7.4. Final Report 17

REFERENCES 18

Figures

Figure 1 – Site Location Map
Figure 2 – Site Plan

Appendices

Appendix A – No Further Action Letter
Appendix B – Santa Fe Springs Fire Department Regulations
Appendix C – South Coast Air Quality Management District Rule 1166
Appendix D – Health and Safety Plan

1. INTRODUCTION

This Soil Management Plan (SMP) has been prepared to provide procedures and criteria to guide grading operations at the Bloomfield II property located at 10806 Bloomfield Avenue in Santa Fe Springs, California (Figure 1; site). The SMP has been prepared in accordance with applicable laws, regulations, and environmental closures that are in place or are currently pending for the site. This revised plan updates the original SMP submitted to the Santa Fe Springs Fire Department (SFSFD) dated March 9, 2004. The revised plan incorporates comments presented by the SFSFD, includes newly established cleanup goals for petroleum hydrocarbons, and incorporates the results of additional investigations conducted at the site by Arcadis.

The site consists of approximately 20 acres that was historically used for oil production and storage (Figure 2). As discussed herein, Arcadis has been working with the Regional Water Quality Control Board, Los Angeles Region (RWQCB) and Cenco Refining Company (Cenco, previous site owner) to successfully close environmental issues at the site. The environmental investigations were conducted on the larger portion of the site, referred to on Figure 2 as the "Bloomfield II Property." These investigations have included soil, vapor, groundwater, and methane investigations; abandonment of oil wells; soil remediation; and a risk assessment. Based on the results of these investigations, impacted soil discovered in the majority of the site has been successfully remediated with the oversight and direction of the RWQCB. Based on the results of these activities, the RWQCB issued a No Further Action (NFA) letter dated April 15, 2004. A copy of this letter is provided in Appendix A.

At the time of the above-described activities, a small area in the northwestern corner of the site was being leased by the Plegel Oil Company (Plegel) for the production and storage of crude oil (Figure 2; referred to herein as the "Plegel lease" or the "Plegel lease property"). As presented herein, a small area of crude oil-impacted soil has been discovered in the Plegel lease area. The vertical and lateral extent has been defined and is limited to the area beneath the existing aboveground storage tanks (ASTs; referred to herein as the "AST Area"). Ninyo & Moore has prepared a report entitled "Results of Subsurface Investigation, Bloomfield II Property, Plegel Oil Company Lease," dated February 13, 2004, and has submitted the report to the SFSFD for review.

The report presents the results of these investigations and concludes that the residual concentrations of constituents discovered at the site do not pose an environmental or health threat. Since the impacted soil discovered for the Plegel lease property is a "known feature," soil management/mitigation in the Plegel lease property will be presented in a separate work plan that will be prepared as part of the closure activities associated with the AST Area.

The SMP has been prepared in accordance with the City of Santa Fe Springs Draft Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, "Draft 64," (referred to herein as the "SFSFD guidelines") to manage "unknown environmental features" that might be encountered during grading activities (Appendix B). The unknown environmental features might include features such as stained and/or odorous soil, sumps, clarifiers, septic pits, underground storage tanks (USTs), petroleum pipelines, etc. The SMP outlines the proposed scope of work to investigate and remediate such features, if encountered. As discussed in Section 7.4, a final report will be prepared following grading activities. The final report will document the results of the grading activities and will request a NFA letter from the SFSFD.

2. PREVIOUSLY USED AND PROPOSED CLEANUP STANDARDS

Although the proposed land use is planned as commercial/industrial, cleanup standards used to date by Arcadis have included the more stringent guidelines presented in the RWQCB Interim Site Assessment and Cleanup Guidebook dated May 1996 (referred to herein as the RWQCB screening levels) and residential standards set forth in the EPA Region IX Residential Preliminary Cleanup Goals (PRGr). Other cleanup guidelines included the EPA Region IX Dilution Attenuation Factor (DAF); California Regional Water Quality Control Board, Central Valley Region Designated Level Methodology (DLM) for Waste Classification and Cleanup Level Determination dated June 1989 for metals; and a site specific screening level of 13 milligrams per kilogram (mg/kg) for arsenic reportedly negotiated by Arcadis with the RWQCB (Iris, 2003). The concentration of arsenic was based on background levels. Concentrations of petroleum hydrocarbons and methyl tertiary butyl ether (MTBE) that exceeded these guidelines discovered in the former Sump and Suction Can area were allowed to be left in-place following verification

that these remaining concentrations did not pose a future risk to human health or the environment.

For further investigations or remediation conducted at the site, this SMP will follow the cleanup standards set forth in the SFSFD guidelines (Appendix B). It is our understanding that, if new contamination is discovered during grading activities that exceeds the SFSFD guidelines, additional information such as the completion of a risk-based analysis (based on a commercial/industrial land use scenario) or the placement of engineering controls could potentially be used to address any newly-discovered contamination to commercial/industrial-based cleanup standards. If such standards are used, it is our understanding that a deed restriction, restricting land use to commercial/industrial uses, would need to be recorded.

3. BACKGROUND

The site and surrounding properties were vacant land in at least 1899 and 1902 (Iris Environmental [Iris], 2003). The site was used for oil production from at least 1923 through the present. On-site oil production included the installation of nine oil wells, referred to as Hathaway Company (Hathaway) "Baker" 27, Pyramid Oil Company "Baker" 46, Texaco, Inc., "Baker" 11, 35, and 51, and Texaco, Inc., "SFS" 5, 12, 14, and 16. Except for "Baker" 27, the remaining oil wells have been decommissioned and abandoned. "Baker" 27 is located in a small area in the northwestern portion of the site that is currently leased by Plegel (Figure 2). Plegel obtained the lease from Hathaway in 1999 (Plegel, 2003).

Following review of the oil well files and proposed redevelopment construction plans by the Division of Oil, Gas & Geothermal Resources (DOGGR), five of the wells ("Baker" 11 and 51, and "SFS" 12, 14, and 16) were re-abandoned in late-2003 due to their locations under or in close proximity to the proposed building foundations. The DOGGR has indicated that oil well "Baker" 35 will need to be re-abandoned. This activity is planned to be conducted prior to redevelopment. Active oil well "Baker" 27 and previously abandoned oil well "SFS" 5 will be abandoned and re-abandoned, respectively, prior to or during the redevelopment activities. "Baker" 46 does not need to be re-abandoned.

From at least 1935 through 1978, the southwestern portion of the site contained a building that was reportedly used at some time as a machine shop (Iris, 2003). The Powerine Refinery, located immediately west of the site and beyond Bloomfield Avenue, was constructed in approximately 1930. Powerine purchased the site in 1978 and developed the site with a number of ASTs, warehouses, and coke crushing and storage facilities (Iris, 2003). In 1984, Powerine filed for bankruptcy, and closed the refinery in 1995. In 1998, Cenco purchased the Powerine refinery and the site. At the time of this report, the on-site structures had been decommissioned and removed from the site, the oil wells had been re-abandoned, and the methane vent pipes had been installed. The Plegel lease was observed to contain an active oil well ("Baker" 27), many small ASTs, a clarifier, and wastewater separators. An abandoned oil well ("SFS" 5) was also reportedly located within or in close proximity to the Plegel lease property. A brief description of environmental investigations conducted at the site is presented below.

3.1. Environmental Reports for the Bloomfield II Property

The environmental reports prepared for the Bloomfield II Property were completed under the direction and oversight of the RWQCB. The Bloomfield Remedial Investigation report, dated November 6, 2003, prepared by Arcadis and the Phase I ESA, dated November 24, 2003, prepared by Iris Environmental, were completed following decommissioning and removal of the structures on the Bloomfield II Property. Two Cleanup and Abatement Orders (dated 1985 and 1997) have been issued to Powerine by the RWQCB. The orders require soil and groundwater investigations to be conducted at the refinery property, which includes the subject site. A brief discussion of these results is provided below.

3.1.1. Soils

The soil investigations included advancing 80 soil borings in selected areas of the Bloomfield II Property with potential environmental concerns, as well as in random locations. Arcadis did not investigate the Plegel lease; as presented below, Ninyo & Moore investigated this area at a later date. Based on the results of the initial soil boring investigation, 17 "hot spots" across the site were discovered. These areas were reported

to contain elevated concentrations of metals (arsenic, barium, total chromium, and/or lead), dieldrin, PCB Aroclor 1254, poly nuclear aromatic hydrocarbons (PNAs), and/or TPH which exceeded one or more of the RWQCB screening levels used to evaluate soil quality at the site (Iris, 2003). These "hot spots" were subsequently remediated to RWQCB standards.

3.1.2. Stockpiled Soils

In 1997, approximately 5,000 cubic yards of impacted soils were excavated from the nearby Lakeland Property and stockpiled on-site. The soil has been extensively characterized since 1997, and was found to contain "hot spots" with elevated concentrations of zinc, antimony, and selenium. These "hot spots" were reportedly removed and disposed of off site (Iris, 2003). Arcadis reviewed and compared the chemical constituents remaining in the stockpiled soils with the cleanup criteria discussed above. Based on their review, lead concentrations exceeded one or more of the screening criteria at four locations in the stockpile. Laboratory results of soil samples collected in other areas of the stockpiles either did not detect concentrations of target chemicals, or contained concentrations of chemicals below the screening criteria indicated above. These soils have since been removed from the site.

3.1.3. Groundwater

The site is part of a larger groundwater investigation associated with the former Powerine Refinery. Since 1997, the three on-site groundwater wells have been monitored as part of the Powerine groundwater investigations (Iris, 2003). During Arcadis' investigations, four temporary well points were also installed and monitored. Impacted groundwater has been discovered in the Artesia aquifer at approximately 85 to 95 feet below the ground surface (bgs). The main chemicals detected in groundwater include total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and xylenes (BTEX); chlorinated volatile organic compounds (VOCs, including vinyl chloride, trichloroethene [TCE], cis-1,2-dichloroethene [cis-1,2-DCE], 1,1-dichloroethene

[1,1-DCE], and 1,1-dichloroethane [1,1-DCA]); acetone; tert-butyl alcohol (TBA); and selected metals.

Because these chemicals have been reported in the up- and downgradient wells, the source of these chemicals is likely the industrial facilities located upgradient from the site. Arcadis indicated that past and current activities at the site were unlikely to have significantly impacted groundwater (Iris, 2003). The three existing groundwater wells are planned to remain on-site for future monitoring by Cenco.

3.1.4. Risk Assessment

Arcadis completed a risk assessment for the site and submitted it to the RWQCB on December 2, 2003. The risk assessment focused on the remaining residual concentrations of constituents (i.e., selected VOCs, PNAs, pesticides, and metals) detected in confirmation samples and shallow soil samples at the site (Arcadis, 2003b). Soil containing elevated concentrations of petroleum hydrocarbons and lead had been successfully remediated by excavation, and therefore, were not considered chemicals of concern (COC).

Based on the results of the risk assessment, Arcadis concluded that the risks to commercial/industrial workers and hypothetical future adult residents were within the acceptable target cancer risk range, below the noncarcinogenic hazard index (HI) threshold value (Arcadis, 2003b). Risks to hypothetical future child residents were within the acceptable target cancer risk range, and below the noncarcinogenic HI threshold value when using exposure point concentrations. The COCs contributing the most to the HI were arsenic, barium, vanadium, thallium, chromium, and mercury (Arcadis, 2003b).

Arsenic and chromium were the primary contributors to the carcinogenic risk at the site. Based on Arcadis' evaluation of these constituents, the residual concentrations of arsenic and chromium were believed to be naturally occurring and represent background conditions. Based on this information, Arcadis negotiated a cleanup standard of

13 mg/kg for arsenic with the RWQCB (Arcadis, 2003a). At the request of the RWQCB, Cal-EPA's Office of Environmental Health Hazard Assessment (OEHHA) reviewed and verbally approved the risk assessment in April 2004 (RWQCB, 2004).

3.1.5. Sump and Suction Cans

In late-December 2003 and as part of their due diligence process associated with the real estate transaction, Bloomfield Partners II, LLC, retained Ninyo & Moore to review the environmental reports completed to date, conduct a site visit, and interview representatives at Cenco. Based on this assessment, a sump and two suction cans (referred to by Iris in their Phase I ESA as the "Pump Well" and "Catch Basin," respectively) were discovered to have been located in the southwestern portion of the site. Because previous soil borings completed by Arcadis had not been drilled deep enough to obtain soil samples beneath these former features, Ninyo & Moore recommended conducting additional investigations.

Soil sampling was completed in January 2004 and laboratory results of soil samples collected beneath these features indicated concentrations of petroleum hydrocarbons and MTBE exceeding the RWQCB screening levels. Laboratory results of soil samples collected at depth and at distances away from these features indicated no detectable to low concentrations. These results were presented to the RWQCB in a report dated February 12, 2004. The RWQCB subsequently reviewed the report and requested Arcadis to complete additional soil and groundwater sampling in the vicinity of the former Sump and Suction Cans to further assess the vertical and lateral extent of the residual concentrations of petroleum hydrocarbon and MTBE detected at depth.

Under the direction of the RWQCB, Arcadis advanced three soil borings in March 2004 to depths of up to 105 feet bgs in the vicinity of the former Sump and Suction Cans. Soil samples were collected from each soil boring at 5-foot intervals beginning at approximately 5 feet bgs and continuing to groundwater, which was encountered at depths of between 100 and 105 feet bgs (Arcadis, 2004a). One groundwater sample was col-

lected from each boring using hydropunch sampling equipment. Each soil sample was analyzed for petroleum hydrocarbons and VOCs, including MTBE. The 5-foot samples were also analyzed for organic compounds, Title 22 metals, and selected PAHs. The groundwater samples were analyzed for VOCs. Laboratory results indicated concentrations of MTBE at various depths; however, no detectable concentrations of MTBE were noted in soil samples collected below 75 feet bgs. Two of the groundwater samples indicated concentrations of MTBE at 61 and 64 micrograms per liter (µg/l), and very low concentrations of benzene and ethylbenzene (well below drinking water standards). Laboratory results of the 5-foot samples indicated no detectable to low concentrations of metals and PAHs, below the PRGr values or negotiated cleanup standards.

Because higher maximum concentrations of eight VOC constituents and an additional constituent (n-butylbenzene) were detected by Arcadis during this investigation, Arcadis updated the RA discussed in Section 3.1.4. Arcadis concluded that these concentrations would not change the results of the previous RA. Arcadis also concluded that the concentrations of MTBE and other VOCs detected during this investigation did not pose an environmental or human health threat. Based on this information, Arcadis recommended that no further action be taken in the vicinity of these former features.

3.1.6. Soil Gas Survey

Prior to issuing a NFA letter for the site, the RWQCB requested that Arcadis complete a limited soil gas survey in selected areas of the site. In April 2004, Arcadis advanced 11 soil gas probes in selected areas and depths directed by the RWQCB. The results of the soil gas survey did not reveal concentrations of benzene or other residual VOCs with the exception of trichlorofluoromethane and ethylbenzene. Based on these studies, Arcadis recommended that the RWQCB issue a NFA letter for the site. The RWQCB issued the NFA letter for the site on April 15, 2004.

3.2. Subsurface Investigation Associated with the Plegel Lease

Impacted soil in the Plegel lease will be managed in accordance with a work plan that will be prepared and submitted to the SFSFD as part of the closure activities associated with the AST Area.

In December 2003 and January 2004, Ninyo & Moore completed subsurface investigations in the area of the Plegel lease to assess possible contaminants that might be encountered during grading activities. As presented in the documentation report dated February 13, 2004, the investigation included the advancement of 14 soil borings to depths ranging from approximately 5 to 65 feet bgs. Petroleum hydrocarbon (i.e., crude oil) and lead and arsenic impacted soil was discovered in a limited area in the vicinity of the AST Area. Based on this information, Ninyo & Moore recommended that the impacted soil be left in-place and that the upper 2 feet of impacted soil be managed during grading activities in accordance with the SFSFD guidelines. A copy of this report has been submitted to the SFSFD for review.

4. PURPOSE

The purpose of this SMP is to monitor the grading activities in order to identify and properly manage unknown environmental features that might be encountered during site grading and development. This SMP provides procedures for the effective and prompt communication of the discovery of unknown environmental features to the SFSFD during site grading and development. This SMP and the grading contractor's Health and Safety Plan will control the exposure of site workers and the general public to dust, vapors or odors associated with the site grading operations.

5. PROGRAM PARTICIPANTS

5.1. Ninyo & Moore Participants

Ninyo & Moore will act as the environmental consultant and provide field oversight and management services for the SMP. Ninyo & Moore personnel will include a Program Manager and Field Coordinator.

The SMP Field Coordinator for this project is:

- Richard Stevenson, Ninyo & Moore (949) 753-7070

The Alternate SMP Field Coordinator for this project is:

- Krista Brodersen, Ninyo & Moore (949) 753-7070

The SMP Program Manager for this project is:

- Paul Roberts, Ninyo & Moore (949) 753-7070

The Alternate SMP Program Manager for this project is:

- Craig Metheny, Ninyo & Moore (949) 753-7070

5.2. Owner's Participants

The Owner's Project Director is:

- Peter Rooney, Bloomfield Partners II, LLC (949) 756-5959

The Owner's Environmental Manager for this project is:

- David Henry, Hazard Management Consulting, Inc., (949) 587-0340

5.3. General Contractor's Participants

The General Contractor's Project Manager is:

- To be determined

The General Contractor's Project Site Superintendent is:

- To be determined

6. INDIVIDUAL RESPONSIBILITIES

6.1. Ninyo & Moore SMP Field Coordinator

The SMP Field Coordinator shall be responsible for the following tasks:

- As directed and after having been permitted (if required), supervise activities related to unknown features and other unknown environmental conditions;
- Monitor excavation activities with the appropriate monitoring equipment in accordance with South Coast Air Quality Management District (SCAQMD) Rule 1166 (Appendix C);
- If and when needed, collect samples and arrange for laboratory analyses; and
- Maintain record of soil sample locations.

6.2. Ninyo & Moore SMP Program Manager

The SMP Program Manager shall be responsible for the following tasks:

- Monitor the work of the SMP Field Coordinator;
- Communicate field activities to the Owner's Environmental Manager and Owner's Project Director;
- Notify the SFSFD of unknown environmental conditions encountered during redevelopment activities;
- Communicate with the SMP Field Coordinator to investigate unknown features and other unknown environmental conditions, if encountered;
- Evaluate results of soil sampling in accordance with the protocols and criteria set forth in Section 7.3 below;
- After consultation with the SMP Field Coordinator, the Owner's Environmental Manager, and Owner's Project Director, characterize, delineate and supervise the proper management of unknown features and other unknown environmental conditions; and
- Prepare reports of field activities.

6.3. General Contractor Project Manager or Project Site Superintendent

The General Contractor Project Manager or Project Site Superintendent shall be responsible for the following tasks:

- If an unknown environmental feature is encountered, stop grading activities in the area of the feature, and delineate the area with "Caution" tape, delineators, or fencing; and
- Report suspected unknown environmental features to the SMP Program Manager, the Owner's Environmental Manager, or the Owner's Project Director. Owner's Project Director or a designee will initiate and approve all non-emergency contacts with the SFSFD.

6.4. General Responsibilities

All Ninyo & Moore personnel working at the site will have current HAZWOPER health and safety training. As presented in Section 7.1.1, Ninyo & Moore will implement a Health and Safety Plan (HSP) that covers Ninyo & Moore's employees and subcontractors. A copy of the HSP is presented in Appendix D. Ninyo & Moore's scope of work for this project does not include health and safety monitoring for the General or Grading Contractor's personnel and subcontractors as part of their daily work activities or during any soil excavation activities. The General Contractor and subcontractors will provide their own HSP.

If impacted soil or subsurface features that are suspected to contain chemicals are encountered, a contractor licensed to handle hazardous or potentially hazardous waste will be retained for investigative work.

7. ENVIRONMENTAL ACTIVITIES FOR SITE GRADING AND EXCAVATION

The following presents the activities that will be performed prior to, during, and following the on-site grading and excavation activities.

7.1. Pre-Grading Activities

The pre-grading activities will be conducted to minimize down time and interruptions of grading activities if unknown environmental features are encountered. Pre-grading activities are intended to health and safety issues, preparing and coordinating site individuals with their respective responsibilities, and to abandon/re-abandon oil wells.

7.1.1. Health and Safety Plan (HSP)

Ninyo & Moore has prepared a HSP to protect Ninyo & Moore's workers and subcontractors from chemicals that might be encountered. A copy of the HSP is provided in Appendix D.

7.1.2. Oil Well Abandonment

As previously stated, "SFS" 5 and "Baker" 35 will be re-abandoned and "Baker" 27 will be abandoned in general accordance with the DOGGR and SFSFD guidelines. Although the location of oil well "SFS" 5 is unknown, DOGGR maps indicate that this well may be located within, or in close proximity to, the AST Area in the Plegel lease. "Baker" 27 is also located within the Plegel lease property. Based on this information, these wells will be abandoned/re-abandoned during the closure of the AST Area. "Baker" 35 is planned to be re-abandoned prior to or during grading activities.

7.1.3. Pre-Grading Meeting

A pre-grading meeting will be attended by the SMP Field Coordinator, the SMP Program Manager, the General Contractor Project Manager, the General Contractor Project Site Superintendent, the Owner's Project Director, and the Owner's Environmental Manager. The agenda of the meeting will include an oversight of the historical land use, environmental investigations, and remedial activities performed at the site. The meeting will also be held to discuss possible unknown environmental features that might be encountered. The SMP Program Manager will review the information provided in this SMP, including individual's responsibilities and emergency phone numbers.

7.2. During Grading and Excavation Activities

Once grading and/or excavation have begun, the following activities will be performed.

7.2.1. Dust and Odor Control

The General or Grading Contractor's health and safety field monitor will monitor grading operations for fugitive dust in accordance with SCAQMD Rule 403 Fugitive Dust

(http://www.aqmd.gov/rules/html/r403.html) and direct the General or Grading Contractor to take such measures, as necessary, such as the application of water or a change in operations or equipment in order to properly manage dust from leaving the site.

If impacted soil is discovered, the General or Grading Contractor's health and safety field monitor will monitor grading operations for odors in accordance with SCAQMD Rule 402 (http://www.aqmd.gov/rules/html/r402.html) and direct the General or Grading Contractor to take such measures, as necessary, such as the application of water or a change in operations or equipment in order to properly manage noticeable or nuisance odors from leaving the site.

7.2.2. Notification and Identification of Unknown Environmental Features

The SFSFD will be notified if unknown environmental features are identified that require additional investigations or remediation as presented in the SMP. The SMP Field Coordinator will direct a limited excavation to identify the feature. If the unknown environmental feature is assessed to be stained and/or odorous soil or other feature that is not regulated, the scope of work to investigate and remediate this feature is discussed below. The specific scope of work will be verbally discussed with the SFSFD prior to beginning the work. Documentation of the work conducted to assess and remediate these features will be provided in the final grading report.

If the unknown environmental feature is assessed to be a regulated feature, such as a UST, septic pit, or clarifier, the appropriate regulatory agencies will be notified, permits will be obtained, and work plans will be provided. The results of the investigations and remediation will be documented in the final grading report, or in an individual report.

7.3. Site-Specific Soil Management Protocols

If impacted soil or unknown environmental features are encountered during redevelopment, the soil and/or features will be managed in accordance with this SMP. Site-Specific Soil Management Protocols (i.e., cleanup standards) will be based on the criteria presented in the

SFSFD guidelines (See Appendix B). Cleanup standards for arsenic will be based on the RWQCB approved level of 13 mg/kg or published background levels. If impacted soil exceeding these cleanup standards is to be left in-place, the material will be evaluated on an environmental and health risk basis. If necessary, air monitoring will be conducted during the excavation of impacted soil in accordance with a SCAQMD various sites permit.

These Site-Specific Soil Management Protocols will be followed during the pre-grading activities described in the previous section of the SMP and during all other grading and excavation activities undertaken during the development of the Bloomfield II Property. The Site-Specific Soil Management Protocols are grouped by the type of unknown environmental feature and have been developed with acknowledgement of past site use history and previous subsurface investigations completed at the site. All soil samples will be analyzed by a State-certified environmental laboratory.

7.3.1. Stained and/or Odorous Soil, or Other Unregulated Feature

Stained and/or odorous soil or other unregulated feature that is discovered at the site will be assessed or mitigated using on-site equipment. One sample will be collected from each homogeneous material and will be analyzed for TPHg, total petroleum hydrocarbons carbon chain C_{10}-C_{32} (TPHcc), VOCs, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and Title 22 metals in general accordance with EPA Method Nos. 8015 (modified), 8270, 8082, and 6010/7000 series. These analyses will be performed to assess the potential presence of the COC. Soil sampling for TPHg and VOCs will be conducted in general accordance with EPA Method No. 5035. If the soil materials are assessed to contain VOCs, air monitoring will be conducted in accordance with SCAQMD Rule 1166. Liquids will be profiled and disposed at a State-licensed facility.

Impacted soil will be characterized using either a backhoe or drill rig. If limited in area, the materials will be excavated and confirmation samples will be collected from the floor and walls of the excavation. Confirmation samples will be analyzed for the COC

detected during the initial sampling. The results of the investigations and remediation will be documented in the final report that will be prepared following grading activities.

7.3.2. Petroleum Pipelines

All known petroleum pipelines have been removed from the site, and no transmission lines are reported to exist at the site. Unknown petroleum pipelines encountered during grading activities will be removed in general accordance with the SFSFD guidelines. These procedures will be slightly modified, as discussed below.

- If a pipeline is encountered during grading activities, the General Contractor Project Manager or Project Site Superintendent will inspect the pipeline to assess whether it contains liquids or if impacted soil is observed. If the pipeline contains no liquids, is broken, and no staining or odorous soil is encountered, the General Contractor will remove and dispose of the pipe.

- If liquids are present, or if it is unknown whether liquids are present, the General Contractor Project Manager or Project Site Superintendent will notify the Ninyo & Moore SMP Program Manager to further assess the pipeline. The pipelines will be tapped and tested for combustible vapors with an explosive meter. The lines will then be inspected to determine if they contain residual liquids; any oily liquids discovered will be profiled for hazardous waste characterization and removed for off-site recycling or disposal;

- All work on the pipelines will be monitored for combustible vapors with an explosive meter;

- Any pipelines extending off site will be cut and secured with a welded cap as near as possible to the property boundary;

- Any impacted soil associated with the unknown pipelines will be sampled and mitigated as per the protocols set forth in this SMP (see Section 7.3.1). Impacted soil mitigation will be documented in the final report; and

- If no visual or odorous soil is encountered, no soil sampling will be performed.

7.3.3. Regulated Features

If a regulated feature such as a UST, septic pit, or clarifier is encountered, Ninyo & Moore will obtain the appropriate permits to remove the feature and will follow the

regulatory guidelines set forth by the SFSFD, and if necessary, the Santa Fe Springs Building Department (SFSBD).

7.3.4. Stockpile Sampling

Excavated impacted soil will be placed on, and covered with, visqueen plastic. Profile sampling for off-site use/disposal of the soil will include the following sampling protocol as outlined in the SFSFD guidelines, or profiling criteria set forth by a disposal/recycling facility:

- Minimum of one sample for 100 cubic yards or less;
- Minimum of three samples for greater than 100 to 500 cubic yards;
- Minimum of five samples with one sample every 500 cubic yards up to 2,500 cubic yards; and
- Minimum of one sample for every 500 cubic yards greater than 2,500 cubic yards.

The location of samples will be chosen based on a statistical method. Composite sampling, if completed, will consist of compositing a maximum of four samples into one and will follow DTSC SW-846 guidelines. Compositing shall be completed by the laboratory.

7.4. Final Report

Following completion of the grading and redevelopment activities, Ninyo & Moore will prepare a final grading report that will document the results of the grading activities. The final report will be submitted to the SFSFD for review, and will request that the SFSFD issue a NFA letter for the site.

If regulated unknown environmental features are encountered, such as USTs or clarifiers, a separate document will be prepared and provided to the SFSFD presenting the closure procedures and requesting a NFA or closure letter for each feature or group of features.

REFERENCES

Arcadis, 2003a, Bloomfield Remedial Investigation, Former Cenco Refinery Site, Santa Fe Springs, California: Report prepared for SARES-REGIS Group Commercial Investment Division, Irvine, California, dated November 6.

Arcadis, 2003b, Former Cenco Refinery Site, Santa Fe Springs, California: Report prepared for SARES-REGIS Group Commercial Investment Division, Irvine, California, dated November 6.

Arcadis, 2004a, Suction Can Assessment – Bloomfield Remedial Investigation Addendum, CENCO Bloomfield Investigation, Santa Fe Springs, California: Report prepared for the California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California, dated March 9.

Arcadis, 2004b, Results of the Soil Gas Survey, CENCO Bloomfield Property, Santa Fe Springs, California: Report prepared for the California Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California, dated April 7.

Iris Environmental, 2003, Phase I Environmental Site Assessment, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Report prepared for SARES-REGIS Group and RREEF, Irvine, California, dated November 24.

City of Santa Fe Springs, 2004, Draft Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, "Draft 64."

Ninyo & Moore, 2004a, Results of Subsurface Investigations, Bloomfield II Property, Former Sump and Suction Cans, 10806 Bloomfield Avenue, Santa Fe Springs, California: Report prepared for SARES-REGIS Group, Irvine, California, dated February 12.

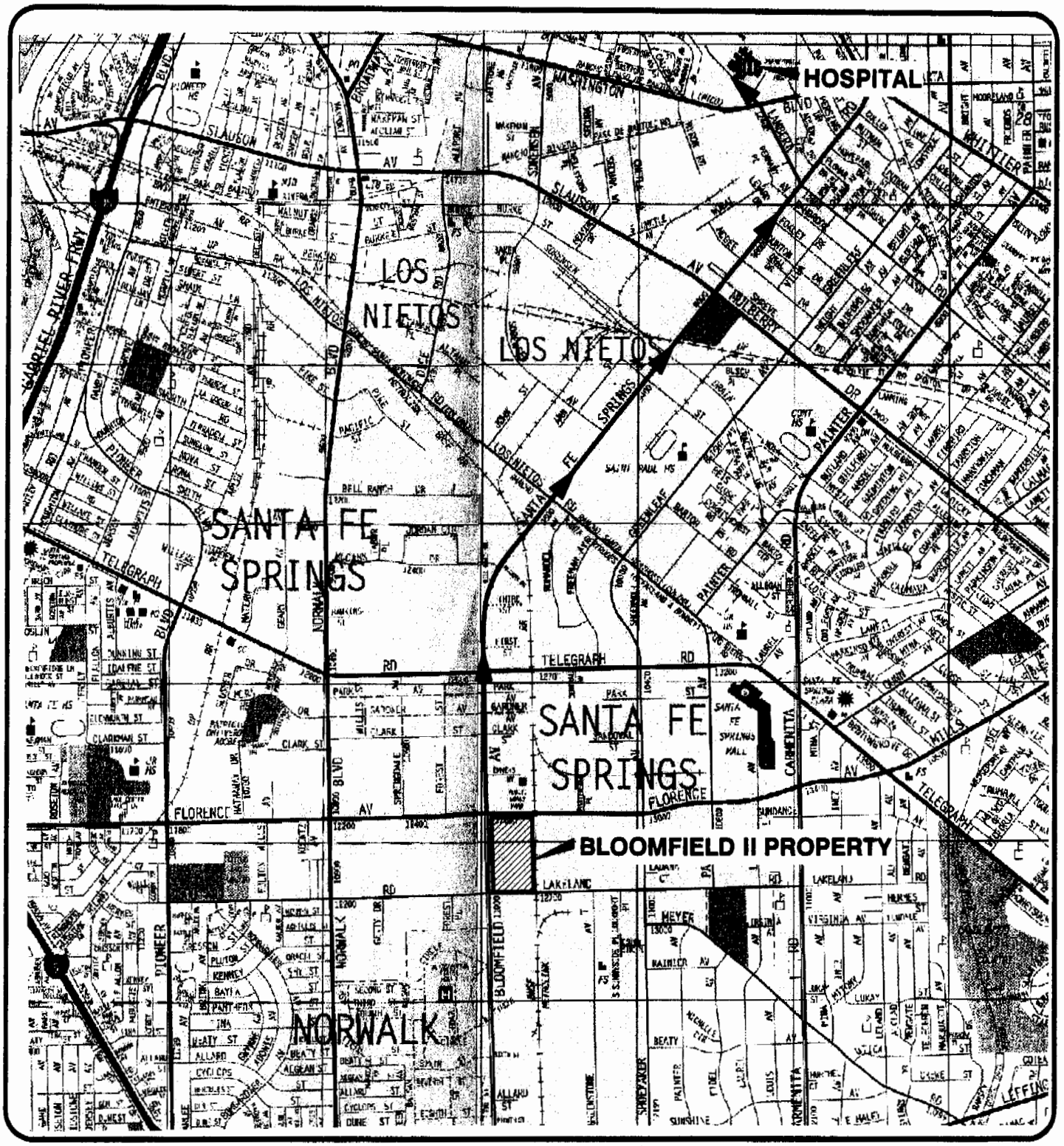
Ninyo & Moore, 2004b, Results of Subsurface Investigations, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Report prepared for SARES-REGIS Group, Irvine, California, dated February 13.

Ninyo & Moore, 2004c, Soil Management Plan, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Report prepared for Bloomfield Partners II, LLC, Irvine, California, dated March 9.

Plegel, Wayne, 2003, Plegel Oil Company: Oral communication.

Regional Water Quality Control Board, Los Angeles Region (RWQCB), 1996, Interim Site Assessment & Cleanup Guidebook, dated May.

Regional Water Quality Control Board, Los Angeles Region (RWQCB), 2004, No Further Action Letter – Former Oil Field and Refinery Property, Bloomfield Property, Cenco Refinery, 1234 Lakeland Road, Santa Fe Springs (SLIC No. 318, Site ID 2040071): Letter prepared for CENCO Refining Company, Santa Fe Springs, California, dated April 15.



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REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

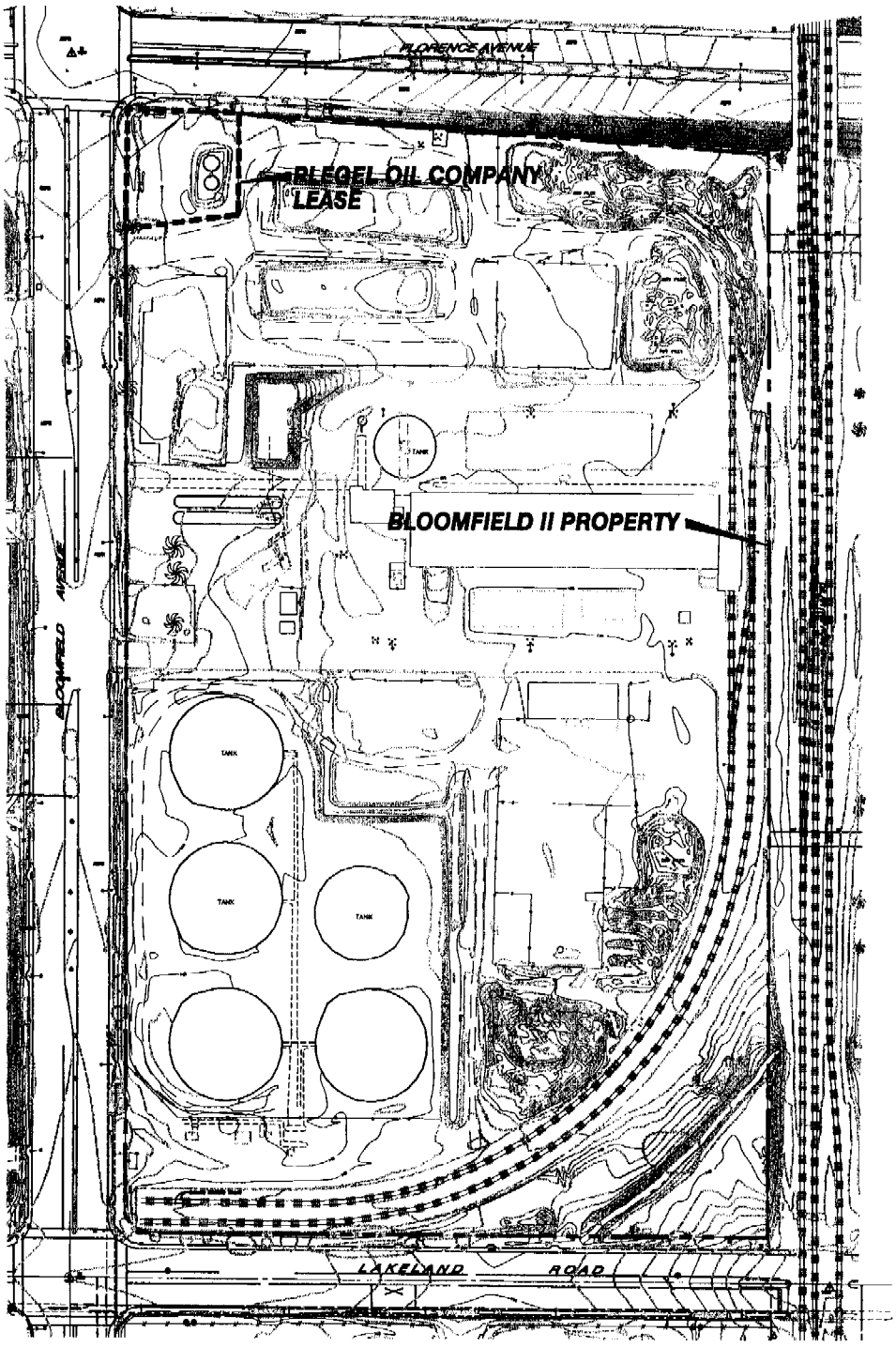
APPROXIMATE SCALE IN FEET

Ninyo & Moore

HOSPITAL ROUTE MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372001	6/2004	1



0 200 400

APPROXIMATE SCALE IN FEET

REEFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

- — - - — BLOOMFIELD II PROPERTY BOUNDARY
- - - - - - PLEGEL OIL COMPANY LEASE

205372-A6.DWG

Ninyo & Moore

SITE PLAN

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372001	6/2004	2

APPENDIX A

NO FURTHER ACTION LETTER

California Regional Water Quality Control Board

Los Angeles Region

Over 51 Years Serving Coastal Los Angeles and Ventura Counties
Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Terry Tamminen
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Mr. Lowell Morse	From D. Barborowski
Co. Cenco	Co. RWQCB-LAR
Dept.	Phone (213) 576-6607
Fax # (562) 903-8911	Fax #

April 15, 2004

Mr. Michael Barranco
CENCO Refining Company
12345 Lakeland Road
Santa Fe Springs, CA 90670

NO FURTHER ACTION – FORMER OIL FIELD AND REFINERY PROPERTY-BLOOMFIELD PROPERTY – CENCO REFINERY – 12345 LAKELAND ROAD, SANTA FE SPRINGS (SLIC NO. 318, SITE ID 2040071)

Dear Mr. Barranco:

Thank you for the Closure Report dated December 2003, for the Bloomfield property. Soil investigations and remedial activities was conducted at the property from 1985 to December 2004 to characterize and remediate the source of total petroleum hydrocarbons (TPH), and benzene, toluene, ethylbenzene, and xylenes (BTEX), and volatile organic compounds (VOCs) resulting from historical oilfield production and refinery activities.

Prior to the remediation work, soil analytical results detected the presence of TPH as gasoline (ranging from below detection limits to 653 milligrams per kilogram (mg/kg), TPH as diesel (ranging from below detection limits to 9,760 mg/kg), TPH as motor oil (ranging from below detection limits to 25,000 mg/kg), benzene (ranging from below detection limits to 0.022 mg/kg), toluene (ranging from below detection limits to 0.098 mg/kg), ethylbenzene (ranging from below detection limits to 0.160 mg/kg), and xylenes (ranging from below detection limits to 0.025 mg/kg). Approximately 3,405 tons of impacted soil were excavated from identified areas and transported offsite. The onsite residual contaminants left in place consisted of minor isolated elevated concentrations of methyl tertiary butyl ether (MTBE), Naphthalene, and tertiary butyl alcohol (TBA).

Based upon the information submitted, the Regional Board has no further requirements with respect to soils and groundwater at the site. The residual VOC contaminants are localized, limited in mass and extent, and are expected to naturally attenuate through the biodegradable nature of petroleum based hydrocarbons over time. All other contaminants were below the site specific cleanup levels established by the Regional Board's 1996 Interim Site Assessment and Cleanup Guidebook, and the U.S. EPA Region IX preliminary remediation goals (PRG) levels for human health protection.

Groundwater is encountered at approximately 88 to 105 feet below ground surface (bgs). Three groundwater-monitoring wells are located on the property and have been used to provide site-wide representative information on groundwater quality. Groundwater analytical testing results indicated TPH, fuel oxygenate, and VOCs during monitoring events. One on-site monitoring well had a recent detection of benzene at 1,400 micrograms per liter. The source on the benzene is attributed to an offsite

source that will be managed under Regional Board authority. The groundwater test results and recent soil gas analysis were used to complete a residential scenario human health risk assessment for the site and it was determined that there was no unacceptable exposure potential. The resulting low groundwater concentrations indicate that historical activities at the site have not significantly impacted groundwater quality at this site.

A site-wide risk assessment was performed utilizing the available analytical data from the site, under a residential use scenario. The risk-assessment report was submitted to Cal EPA Office of Environmental Health Hazard Assessment (OEHHA). Approval was received from OEHHA in April 2004.

This determination of no further action for soils and groundwater is based on available information and the provision that the information provided to this agency was accurate and representative of site conditions. Please contact the Regional Board immediately, if additional soil and groundwater contamination is discovered during any future development activities. Future soil cleanup may be required as warranted by redevelopment or change of land use proposed at the site.

A Soils Management Plan (SMP) must be submitted to the Santa Fe Springs Fire Department and approved before any grading activities are conducted on the site. The elements of SMP must be fulfilled during site grading. Please be advised that a final SMP report must be submitted and approved by the Santa Fe Springs Fire Department before a building permit can be issued for the site.

Please contact J. T. Liu at (213) 576-6667 or Mr. Steven Hariri at (213) 576-6745, if you have any questions regarding this matter.

Sincerely,

Dennis A. Dickerson
Executive Officer

cc: Barry Molnaa, Arcadis
Andy Lazzaretto, City of Santa Fe Springs

APPENDIX B

SANTA FE SPRINGS FIRE DEPARTMENT REGULATIONS

DRAFT 64

CITY OF SANTA FE SPRINGS

SOIL ASSESSMENT AND REMEDIATION GUIDELINES FOR COMMERCIAL/INDUSTRIAL SITES

Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670
(562) 944-9713

Department of Planning and Development
11710 Telegraph Road
Santa Fe Springs, CA 90670
(562) 868-0511

TABLE OF CONTENTS

Objective..... 1

Before Starting Work..... 1

New Development..... 1

Closing Sites..... 2

Active Sites..... 2

Fees..... 2

Overview

Section A – Remediation Standards..... 3

Section B – Site Assessment and Closure Report Requirements..... 4

Section C – Soils Management Plan..... 5

Section D – Conditions..... 6

Fact Sheets

Soil Sampling Guidesheet..... 8

Metals Analysis For Contaminated Soils Fact Sheet..... 10

Stockpiled Soil Testing Requirements..... 11

Pipeline Abandonment Procedures..... 12

Methyl Tert-Butyl Ether (MTBE)..... 14

Glossary & Definitions..... 15

SOIL ASSESSMENT AND REMEDIATION GUIDELINES FOR COMMERCIAL/INDUSTRIAL SITES

OBJECTIVE:

In the interest of public health and environmental protection, the City of Santa Fe Springs requires the assessment of contaminated or potentially contaminated sites and, if necessary, the remediation of those sites. The following Soil Assessment and Remediation Guidelines for Commercial/Industrial Properties (Guidelines) have been created to help business owners, property owners, and developers comply with the City's site mitigation requirements. These Guidelines are based on the Regional Water Quality Control Board's (RWQCB) 1996 Interim Guidance for petroleum hydrocarbons, the United States Environmental Protection Agency's (USEPA) Region IX Preliminary Remediation Goals (PRGs), and the Risk-Based Soil Remediation Goals for Total Petroleum Hydrocarbons report prepared for the City of Santa Fe Springs. The Guidelines established in this document are specific to commercial/industrial sites which are not under regulatory oversight by a State Agency. It applies to new developments, site closures, and active sites with potential contamination. Residential areas, school zones, hospital developments etc., or locations with sensitive receptors, including endangered species, are not covered under this document. The City will provide oversight of site characterization and remediation of contaminated soils under the authority of the Santa Fe Springs City Code § 97.207 (see www.santafesprings.org). Compliance with all or part of these Guidelines may not be required if a sitewide No Further Action or Closure letter has been issued by the Department of Toxic Substances Control (DTSC) or the RWQCB. `

BEFORE STARTING WORK:

The property owner and their consultants must attend a "scoping meeting" to discuss the site development process, site closure, selection of the city site assessment Case Manager for the site, cost recovery and related issues. It is also important to clearly establish the level of regulatory oversight needed to accomplish the project goals. Compliance with this guidance, and approval from our department, only fulfills the City of Santa Fe Springs Site Mitigation Ordinance requirements. It does not replace State Agency requirements.

NEW DEVELOPMENT:

A Phase I Site Assessment shall be completed and submitted to the city site assessment Case Manager for review. A Phase II Site Assessment Workplan may be required based on the information presented in the Phase I Assessment. The Phase II Assessment Workplan shall be submitted to the city site assessment Case Manager for review and approval prior to implementation. The Phase I and II Assessments shall be consistent with ASTM standards and the City's "SOIL SAMPLING GUIDELINES". Previous Phase I and II work may be accepted on a case-by-case basis. The vertical and lateral extent of any soil contamination identified in the Phase II Assessment shall be determined. If soil contamination is detected in concentrations that exceed the remediation standards in these Guidelines or indicate an on-site or off-site threat to human health, public safety or the environment, refer to Condition 1, Section D of this Guideline, for remedial options. A No Further Action letter will be issued by the Santa Fe Springs Fire Department (SFSFD) when it is determined that the contamination is within acceptable levels (see Condition 9) and, if required, the Soils Management Plan (SMP) has been approved. All soil excavations must be backfilled in accordance with the City of Santa Fe Springs Building Department guidelines. Please contact the Building Department at (562) 868-0511 for details.

CLOSING SITES:
Thirty days prior to closing, sites undergoing closure shall submit a Facility Closure Plan as required by the Uniform Fire Code. A Phase I and II Site Assessment may be required. Please contact the SFSFD to obtain a copy of the Facility Closure Letter which outlines facility closure requirements.

ACTIVE SITES:
Applicable guidelines and procedures will be determined on a case-by-case basis for sites that are not being closed or developed. Active sites with potential contamination include operating or inactive facilities that currently or have historically store(d), use(d), dispense(d), handle(d), or generate(d) any material that may pose a threat to human health or the environment.

FEES:
The base plan review fee must be paid at the time of submittal. The City may also use a third party consultant to review site assessment and mitigation plans. The responsible party shall pay the City for all direct and indirect costs related to the specific review. Please contact the City for the current site mitigation oversight fee schedule.

OVERVIEW

The following criteria in Sections A – D apply to all industrial/commercial sites. These Sections address the City of Santa Fe Springs' remediation standards, site assessment and closure report requirements, the required soils management plan, and applicable conditions. All Phase II Assessment Workplans must identify soil sampling locations and list the chemical(s) of concern. Please refer to the attached "SOIL SAMPLING GUIDELINES" fact sheet for information on the City's minimum sampling requirements.

SECTION A
REMEDIATION STANDARDS

Visual and olfactory signs of contamination must be removed to a depth of 2 feet or addressed in a manner subject to the approval of the site assessment Case Manager. The maximum allowable concentrations listed in the following table are applicable at most sites; however, site specific conditions such as soil lithology, depth of contamination, the number of contaminants, and environmental receptors, may result in different remediation standards than those listed below. In addition, alternative standards may apply at sites unable to meet the listed standards (see Section D, Condition 1b).

CONTAMINANT	MAXIMUM ALLOWABLE CONCENTRATION (mg/kg)[4]
Petroleum Hydrocarbon ($C_4 - C_{12}$)[1]	1,600
Petroleum Hydrocarbon ($C_{13} - C_{22}$)[1]	7,500
Petroleum Hydrocarbon ($C_{23} - C_{40}$)[1]	36,000
Methyl tert-butyl ether (MTBE)	0.014[2]
Volatile Organic Compounds (except MTBE)	EPA Region IX Residential Preliminary Remediation Goals (PRGs), Soil Screening Levels, Cal-Modified PRGs or the RWQCB 1996 Interim Site Assessment and Clean Up Guidebook, whichever is more restrictive
Semi-Volatile Organic Compounds	
Polychlorinated Biphenyls (PCBs)	
Metal[3]	

1 Petroleum Hydrocarbon maximum allowable concentrations listed are from Table ES-1 of the "Risk-Based Soil Remediation Goals for Total Petroleum Hydrocarbons" report prepared for the City of Santa Fe Spring by ENVIRON Corporation, December 5, 2003. A copy of this report is available at the Fire Department for a nominal fee. Use of the maximum allowable concentration numbers provided above requires that the person signing the report has determined these concentrations pose no potential negative impact to groundwater.

2 MTBE concentrations range from 0.014 to 0.7 mg/kg depending on lithology and distance to groundwater. Refer to the MTBE fact sheet for more details.

3 Metals concentrations which exceed the Residential PRGs yet are shown to be consistent with background concentrations may be allowed to remain on site provided adequate background sampling or supporting data, such as background levels documented in literature, are provided. See fact sheet titled "METALS ANALYSIS FOR CONTAMINATED SOILS" for metals hazardous waste determination criteria.

4 If a PRG is not published for a certain constituent, then other regulatory and/or scientifically based methods or guidance may be used to determine an acceptable concentration level.

SECTION B
SITE ASSESSMENT AND CLOSURE REPORT REQUIREMENTS

All reports submitted pursuant to this Guideline shall include, at a minimum, the following:

1. All work related to engineering and geologic evaluations must be performed by or under the direction of a California Registered Geologist, a California Certified Engineering Geologist, a California Registered Geotechnical Engineer, or a California Registered Civil Engineer with sufficient experience in soils. A statement is required in the report that the registered professional in responsible charge actually supervised or personally conducted all work associated with the project. (California Business and Professions Code Sections 6735, 7835, 7835.1). The report must also be signed and stamped by the registered professional.

2. The site address of subject location and a plot plan to scale showing the location of hazardous material/hazardous waste/industrial waste, sampling points, buildings, adjacent streets, and a north arrow. Use a legend to identify tank size and past contents.

3. A copy of each Chain of Custody shall be provided. The Chain of Custody shall document all persons who have handled the samples through the person at a State Certified (Cal/EPA Department of Toxic Substances Control) laboratory.

4. A description of methods for obtaining, handling, and transporting samples.

5. The time and date samples were obtained.

6. Soil sampling certification including but not limited to soils classification, boring logs, sample procedures, sample locations, and initiating chain of custody.

7. Disposal documentation such as manifests (signed by the receiving facility) for the disposal of the tank, any removed soil, tank rinseate, and/or remaining tank contents. The records shall also include a proper waste determination for all waste material.

8. A copy of "clean" certification for tanks, pipelines, etc. signed by a Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional.

9. Analysis results by a State-Certified laboratory submitted on laboratory letterhead showing analysis date, method of extraction, and method of analysis.

10. Documentation as to depths of groundwater at the facility and, if possible, groundwater location and flow direction.

11. Any observations of site contamination.

12. Remedial action plan to address contamination.

13. Conclusions and recommendations which clearly indicate whether or not further action is warranted.

SECTION C
SOILS MANAGEMENT PLAN

The City requires the submission and approval of a Soils Management Plan (SMP) at sites with known or suspected residual contamination. The goal of the SMP is to minimize undue delays resulting from the discovery of previously unidentified environmental conditions during remedial action or grading activities. Delays can be minimized by anticipating potential problems that can slow down or stop a project and establishing written procedures on how potential problems will be addressed.

The SMP should include, at a minimum, the following information:

- Table of Contents.
- Introduction and Purpose for preparing the SMP.
- Names and Positions of individuals involved with soils management and their specific roles.
- Removal Schedule.
- Dust and Odor Control, Monitoring Equipment and Monitoring Procedures.
- Description and Location of suspected or known residual contamination (visual contamination, odorous residual contamination, abandoned pipelines, buried drums, etc).
- Notification, Sampling and Assessment Procedures for previously unidentified contamination.
- Hazardous Waste Determination and Disposal procedures for previously unidentified contamination.
- Procedures stating that closure permits will be obtained from the Fire Department for the removal of previously unidentified units (underground tanks, pipelines, clarifiers, septic tanks, sumps, etc.).
- A copy of the Health and Safety Plan.
- Copies of permits or closures from other Agencies.

The SMP must be prepared by a California Registered Geologist, a California Certified Engineering Geologist, or a California Registered Civil Engineer with sufficient experience in soils. The SMP must be submitted to the [TMH1]site assessment Case Manager for approval before earthwork begins. A SMP summary report, which includes all analytical data and other findings, must be submitted once grading activities have been completed.

SECTION D
CONDITIONS

1) Sites that exceed the Remediation Standards (Section A) must meet one of the following (a, b, or c):

   a) Submit a Removal Action Plan to the [TMH2]site assessment Case Manager for approval before excavating the contamination. Once the contamination is removed, obtain confirmation samples, as approved by the City, that show remaining contamination is below the remediation standards. Prior to moving contaminated soils off site, a hazardous waste determination per Title 22 CCR and 40 CFR shall be performed. Contaminated soils being moved off site shall be properly manifested, transported and disposed.

   b) Submit a site-specific Health Risk Assessment (HRA) plan to the [TMH3]site assessment Case Manager for approval. The HRA shall include the risk evaluation for all detected chemicals including all detected total petroleum hydrocarbons (TPH) fractions The HRA must be prepared by an approved consultant and demonstrate that an acceptable level of risk for human health concerns associated with the soil contamination has been achieved. The documentation required must generally conform to the DTSC's *Preliminary Endangerment Assessment Guidance Manual (PEA).* Other Cal-EPA or United States EPA Superfund guidance documents may also be considered as a performance standard. An acceptable level of increased carcinogenic risk is generally considered to be less than or equal to $1x10^{-6}$ and a non-carcinogenic hazard quotient of 1 or less. Risk estimates ranging between $1x10^{-4}$ to $1x10^{-6}$ and/or a hazard quotient greater than 1 require administrative and/or engineered controls. A carcinogenic risk level greater than $1x10^{-4}$ is unacceptable.

   c) Enter into a Voluntary Cleanup Agreement with the DTSC if contamination is above the screening levels or in-situ soil remediation is required.

2) TPH levels which exceed the limits in Section B may be allowed provided the Health Risk Assessment for TPH satisfies the acceptable level of risk criteria in condition 1b, and that the existence of TPH contamination in-situ in the top two feet is not apparent to visual or olfactory inspection. Also, for sites with TPH concentrations exceeding 20,000 ppm, methane monitoring and mitigation requirements consistent with City Code § 117.131 must be met, regardless of the site's location to oil wells or landfills.

3) Referral to other agencies such as the AQMD, DTSC, RWQCB, and the DOG, may be necessary even if Condition 1 is met. Referrals are site specific and depend on site conditions.

4) These Guidelines assume the detected compound or element is a significant distance from first groundwater. Remediation standards listed in the table included in Section A may be more restrictive dependent on the site conditions and/or with varying depth to groundwater. For example, sites with contamination within 10' of groundwater that exceeds Maximum Concentration Levels (MCLs) will be referred to the Regional Water Quality Control Board (RWQCB).

5) The blending, mixing, and/or treating of impacted soil that will be reused on site may require filing a report of waste discharge with the RWQCB.

6) Samples from sites contaminated with light end petroleum hydrocarbons (C_4 – C_{12}) and/or volatile organic compounds must be collected using EPA Method 5035. EPA test methods 418.1 or 8015(m) without other additional analysis are generally considered insufficient for assessment and closure purposes.

7) If site specific data suggest that the Remediation Standards in Section A are overly restrictive, or suggest a threat to public health, or the environment, an option for a variance may be pursued. This may result in more or less stringent remediation standards. The responsible party or their consultant may petition the SFSFD for consideration of a variance by applying in writing to the Fire Chief. A variance will only be approved if the petition is supported by a technically defensible explanation.

8) Assessment and clean up of underground storage tank sites shall be consistent with the Los Angeles Regional Water Quality Control Board's "General Laboratory Testing Requirements for Petroleum Hydrocarbon Impacted Sites" dated June 5, 2000. This document is available on the web at http://www.swrcb.ca.gov/rwqcb4/docs/lab_req_6-00.doc.

9) Issuance of a No Further Action letter does not guarantee that a given site is ready for development or in compliance with other state agency regulations. Property owners are responsible for obtaining development approval from the City of Santa Fe Springs and other regulatory agencies. For further information regarding general property development standards and requirements, including methane mitigation, please contact the City's Department of Planning and Development.

10) A South Coast Air Quality Management District Rule 1166 volatile organic compound (VOC) site mitigation plan may be required. Excavated soil measuring greater than 50 ppmv (as hexane) with an organic vapor analyzer requires actions to reduce air emissions.

11) Toxic Substances Control Act (TSCA) guidelines, as outlined in 40 CFR 761, must be followed if more then 50 parts per million of polychlorinated biphenylic (PCB) compounds are identified in the soil.

12) The City may approve variations from these guidelines.

SANTA FE SPRINGS FIRE DEPARTMENT
11300 Greenstone Avenue • Santa Fe Springs, CA • 90670
Phone (562) 944-9713 Fax (562) 941-1817
Website: www.santafesprings.org

SOIL SAMPLING GUIDELINES FACT SHEET

The primary objective of the soil sampling strategy is to provide analytical data of known quality that identifies the contaminants at the site. This data will be reviewed for compliance with the City's Guidelines. The sampling strategy should ensure that locations which would likely contain the highest contaminant concentrations will be sampled.

A secondary objective of the sampling is to define the extent of contamination in order to assess immediate potential threats and [TMH4]evaluate whether removal or other remediation action is necessary. The investigation should be performed in a manner that will determine the nature of the contaminants, their general distribution in the environment and their potential to migrate.

Geologic or engineering plans, specifications, drawings, and reports must be prepared by or under the direct supervision of a California Registered Geologist, a California Certified Engineering Geologist, a California Registered Geotechnical Engineer, or a California Registered Civil Engineer with sufficient experience in ~~soils~~soil sampling and assessment. They shall review and sign all such documents indicating responsibility for their content.

1) Required Analyses

a) All soil samples shall be analyzed for the following contaminants unless a technically defensible explanation for eliminating certain analyses is provided.

CONTAMINANT	SUGGESTED EPA ANALYSIS METHOD
Petroleum Hydrocarbons	8015 (M) for gasoline*, diesel, and heavy ends
Metals	6010, 6020, or 7000 series
Volatile Organic Compounds	8260B*
MTBE and oxygenates	8260B*
Semi- Volatile Organic Compounds	8270 or 8310
PCBs	8080 or 8082
All other constituents	Refer to 22CCR§66264.801 App. IX

* Must use EPA Method 5035 for preparation and preservation

b) Additional recommended laboratory analysis methods are listed in Title 22 of the California Code of Regulations (CCR) section 66264.801, Appendix IX. Commonly accepted EPA test methods are suggested above, though other test methods may be required.

2) Soil sampling requirements for fixed units e.g. underground storage tanks (USTs), waste treatment units, aboveground storage tanks (AST)

a) A permit must be obtained from the Fire Department before removing any fixed units such as tanks and clarifiers, used for the storage, treatment, or disposal of hazardous materials, hazardous waste, or industrial waste. A sampling and analysis plan (SAP) is required as part of the permitting process (see 3a below for details).

b) Number of samples
   i) Units with a capacity of less than 10,000 gallons: minimum 2 samples directly below each end of the Unit.
   ii) Units with a capacity greater than or equal to 10,000 gallons: minimum 3 samples, with 2 samples directly beneath each end of the unit and 1 sample directly beneath the center of the Unit.

c) Sampling depth
   i) Samples below subsurface units (i.e. USTs or clarifiers) must be collected 2 feet below the invert of the unit or below the bottom of the excavation.
   ii) AST samples must be collected at a depth of 2, 5, and 10 feet below ground surface.

3) Vadose zone soil sampling requirements for areas with potential contamination of unknown extent (process unit areas, oil fields)

a) Development sites within the City's Methane Zone may be considered areas of potential concern even if recognizable environmental conditions have not been identified in the Phase I assessment. These sites may require additional assessment such as random sampling, a soil gas survey, or other assessment as accepted by the SFSFD. ~~A fact sheet is available describing random sampling~~[TMH5]~~.~~

b) Develop a SAP that is technically defensible and consistent with regulatory guidelines. The purpose of the SAP must be well defined and include, at a minimum, the following:

   i) Site Background
   ii) Rationale for sampling strategy
   iii) Sample locations
   iv) Sampling methods
   v) Sampling containers and preservation
   vi) Sample documentation including chain of custody
   vii) Analysis methods
   viii) Decontamination
   ix) Waste management

c) Authoritative or "biased" sampling should be used to detect the highest concentration of each contaminant and the general extent of contamination where potential release locations are known. In this strategy the sampling locations are based on the historical uses at the site. Generally the sample locations are in areas where the highest concentration of contaminants are suspected.

d) Technically defensible random sampling should be used to provide a level of assurance that any unknown features and contaminants have been addressed. Random sampling involves the collection of samples at predetermined, regular intervals of a grid placed over the site. The number of initial random sample locations should range from four to eight per acre. Refer to chapter 9 of SW-846 (US EPA, 1986a) for details.

SANTA FE SPRINGS FIRE DEPARTMENT
11300 Greenstone Avenue • Santa Fe Springs, CA • 90670
Phone (562) 944-9713 Fax (562) 941-1817
Website: www.santafesprings.org

METALS ANALYSIS FOR CONTAMINATED SOILS FACT SHEET

This fact sheet is designed to provide guidance on test methods for soils contaminated with metals where the contaminated soils are to be excavated and disposed off site. Prior to contaminated soils being disposed off site, a hazardous waste determination for those soils must be made. The hazardous waste determination for metals contamination in soils must be evaluated using the following criteria.

A. The TTLC criteria (Total Threshold Limit Concentration; State standard: Title 22 CCR, Section 66261.24)

For any material in which the metal concentrations are greater than the listed TTLC values, the materials will be considered a hazardous waste upon removal and must be disposed of accordingly.

B. Ten times the STLC criteria (Soluble Threshold Limit Concentration; State standard: Title 22 CCR, Section 66261.24)

For any material where the TTLC results are greater than ten times the listed STLC values but less than the listed TTLC values, the sample should be re-analyzed by the Waste Extraction Test procedure. If the resulting STLC value exceeds Table II of 66261.24, the materials will be considered a hazardous waste upon removal and must be disposed of accordingly.

C. Twenty times the TCLP criteria (Toxic Characteristic Leachate Procedure; Federal Standard 40 CFR 261.24 and 22 CCR 66261.24).

For any material where the metals concentrations are greater than twenty times the TCLP listed values but less than the TTLC listed values, the sample should be re-analyzed by the TCLP procedure. If the resulting TCLP value exceeds Table I of 66261.24, the materials will be considered a hazardous waste upon removal and must be disposed of accordingly.

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STOCKPILED SOIL TESTING REQUIREMENTS FACT SHEET

This fact sheet is provided for contaminated soil which will be disposed off-site and for stockpiled soils anticipated to be returned to excavations. Prior to contaminated soils being disposed off site, a hazardous waste determination per Title 22 CCR and 40 CFR shall be performed. The sampling should give a result that is representative of the entire waste and has a high degree of confidence (80 % confidence interval) for the findings. The US EPA defines a representative sample as exhibiting average properties of the whole waste.

In order to return stockpiled soils to an excavation, at a minimum, the stockpiled soil shall be sampled in accordance with the random sampling requirements below. Random sampling requirements are based on the RWQCB's guide for soil piles. Authoritative or composite sampling may be performed in addition to the minimum sampling requirements.

Random Sampling

- Minimum of one sample for 100 cubic yards (cy) or less
- Minimum of 3 samples for greater than 100 cy to 500 cy
- Minimum of 5 samples with one sample every 500 cy up to 2500 cy
- Minimum of 1 sample for every 500 cy greater than 2500 cy

Authoritative Sampling

This is a sampling method where the registered professional chooses the locations and number of samples to be taken, based on the inspection of the materials. The inspector may also request additional sampling based on site conditions.

Composite Sampling

If warranted, samples can be composited in accordance with DTSC requirements. All sample compositing shall be done at the laboratory and not in the field. A maximum of four (4) samples can be composited as long as the dilution does not exceed the detection limit for the elements of concern.

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Website: www.santafepsprings.org

PIPELINE ABANDONMENT PROCEDURES FACT SHEET

The City of Santa Fe Springs has the authority to require pipeline abandonment under Chapter 117 of the City's Oil and Gas Regulations. The City is the lead agency for pipeline abandonments which are not transmission lines. Should the pipeline be a transmission line, the State Fire Marshal's Office is the lead agency. The Department of Oil and Gas also has regulatory authority. However, a City permit is still required regardless of pipeline type. The definition of a transmission line is located in 49 CFR §192.3. To determine if a pipeline is a transmission line or not, these guidelines may be used:

- If it is registered with the State Fire Marshal's Office, it is a transmission line. If it is not registered with the State Fire Marshal's Office, it may still be a transmission line. Some old lines were improperly abandoned prior to regulation and therefore were not registered.

- Generally, if the pipeline has a diameter of 8" or more, carries a petroleum product, and passed through the City limits, chances are it's a transmission line.

- If the pipeline goes from oil well to oil well, it is not a transmission pipeline.

PERMIT REQUIREMENTS

If a pipeline is to be abandoned, it must be removed unless its removal is not feasible. In either case, the Fire Department requires a permit. The Building Department may also require a permit. Before the Fire Department permit to abandon will be issued, the permit application fee must be paid and a workplan submitted. The workplan must contain the following information:

- *Pipeline Description*
  Include the location, diameter, prior contents (if known), and its termination points. A scaled plot plan should be attached and show the proximity to fixed points of reference, such as property lines.

- *Abandonment Process*
  All product must be removed from the pipeline, the line shall be cleaned, and the lower explosive limit (LEL) must be below 10%. Only cold cutting techniques and non-sparking tools may be used. Bonding and grounding of equipment must be observed. These procedures must be described in the work plan. If in-place abandonment is planned, the reason why it cannot be removed must be stated and the requirements described in Chapter 117 of the City's Oil and Gas Regulations must be met. Chapter 117 requires pipelines abandoned in-place to be filled with a water based drilling mud or other inert solid. These lines must be capped and marked with the abandonment date on the cap. Provisions for hazardous waste disposal from the cleaning process should be provided.

- *Soil Sampling*
  The workplan shall include a soil sampling plan. This plan must sufficiently assess potential soil contamination and describe soil sampling locations, sample collection method(s), and proposed analysis. The analysis method should be based on the prior contents of the pipeline and provide a good distribution of samples. Volatile organic compounds, MTBE, and oxygenates must be analyzed by EPA method 5035.

- *Health and Safety Plan*
  A Health and Safety Plan must be developed for the site work. A copy shall be made available upon [TMH6]request.

- *Certifications and Licensing*
  Site employees and contractors must have appropriate licensing based on the scope of work.

- *Plan Approval and Permitting*
  When the work plan has been reviewed and approved, the applicant will be contacted and the permit issued.

REQUIRED INSPECTIONS

Notification of pipeline removal and sampling shall be provided to the Fire Department 24 hours in advance.

- *Removal*
  The Fire Department will witness the collection of soil samples and the pipeline removal on a case by case basis.

- *Abandonment In-Place*
  The pipe must be free of product, the lower explosive limit shall be below 10%, the line shall be filled with an approved inert material, and the cap shall be in place with the abandoned pipeline owner's name and date permanently marked on the cap. The Fire Department may also witness the collection of soil samples.

CLOSURE PLAN

A Closure Plan must be submitted to the Fire Department within 30 days following the abandonment inspection and contain the information listed below unless the site is already under the oversight of the Fire Department for site assessment and/or mitigation.

- background information on the project
- a summary of the field work
- description of sampling methodology
- analysis and results of the samples collected
- chain of custody
- copies of hazardous or non hazardous waste manifest
- conclusions

Should you have any questions regarding pipeline abandonment requirements, please contact the Santa Fe Springs Fire Department at (562) 944-9713. The California State Fire Marshal's Office and Department of Oil and Gas addresses and phone numbers are provided below.

California State Fire Marshal's Office
3950 Paramount Blvd., Suite, 210
Lakewood, CA 90712
(562) 497-9100

Department of Oil and Gas
5816 Corporate Avenue, Suite 200
Cypress, CA 90630-4731
(714) 816-6847

SANTA FE SPRINGS FIRE DEPARTMENT
11300 Greenstone Avenue • Santa Fe Springs, CA • 90670
Phone (562) 944-9713 Fax (562) 941-1817
Website: www.santafepsprings.org

METHYL TERT-BUTYL ETHER (MTBE) FACT SHEET

MTBE COLLECTION METHODS

Soil samples analyzed for MTBE shall be prepared and preserved using EPA Method 5035. The minimum analytical detection limit shall be 5 ug/kg. Samples shall be chilled to 4°C and analyzed within 48 hours or handled in accordance with procedures specified in the Los Angeles Regional Water Quality Control Board's "General Laboratory Testing Requirements for Petroleum Hydrocarbon Impacted Sites" dated June 5, 2000. This document is available on the web at http://www.swrcb.ca.gov/rwqcb4/docs/lab_req_6-00.doc

MTBE CLEAN UP CRITERIA

The remediation standard for MTBE is set at .014 mg/kg. However, with documented distance to groundwater and lithology type, the action level for MTBE may be raised. The charts below show the maximum allowable concentration in relation to lithology and distance to groundwater. Please be advised, the SFSFD is required to refer MTBE concentrations at or above 1 ppm to the Los Angeles RWQCB.

FOR SILTY SAND LITHOLOGY

DISTANCE TO GROUNDWATER (in feet)	CONCENTRATION (in ug/kg)
60	140
50	100
40	56
30	42
20	28
10	14

FOR LITHOLOGY WITH EQUAL PARTS SAND, SILT, AND CLAY

DISTANCE TO GROUNDWATER (in feet)	CONCENTRATION (in ug/kg)
60	700
50	280
40	155
30	116
20	78

GLOSSARY & DEFINITIONS

AQMD: Air Quality Management District

APPROVED: Approved by the Fire Chief

AST: Aboveground storage tank

ASTM: American Society for Testing and Materials

CCR: California Code of Regulations

CFR: Code of Federal Regulations

COMMERCIAL / INDUSTRIAL SITES: A location where the facility will be involved or used in either the production, manufacture, storage, transportation, distribution, exchange or sale of goods or commodities; and any facility involved or used in providing professional and nonprofessional services. This includes, but is not limited to, any facility defined by the Standard Industrial Classifications. Profit motive and ownership (federal, state, municipal, private) of the facility are not factors in this definition.

CY: Cubic yards

DOG: Department of Oil and Gas

DTSC: Department of Toxic Substances Control

GUIDELINES: The City of Santa Fe Springs' Soil Assessment and Remediation Guidelines for Commercial / Industrial Sites

LEL: Lower explosive limit

MCL: Maximum Concentration Limit

MTBE: Methyl tert-butyl ether

PCB: Polychlorinated Biphenyls

PRG: Preliminary Remediation Goal

RESPONSIBLE CHARGE: All work must be performed under the responsible charge of a California Registered Geologist, a California Registered Civil Engineer, a California Registered Geotechnical Engineer, or a California Certified Engineering Geologist with sufficient experience in soils.

RWQCB : Regional Water Quality Control Board

SAP: Sampling and Analysis Plan

SFSFD: Santa Fe Springs Fire Department

SMP: Soils Management Plan

STLC: Soluble Threshold Limit Concentration

TCLP: Toxicity Characteristic Leaching Procedure

TTLC: Total Threshold Limit Concentration

TPH: Total petroleum hydrocarbons

US EPA: United States Environmental Protection Agency

UST: Underground storage tank

VOC: Volatile organic compound

~~Page: 5~~
~~[TMH1] Same as TMH4~~
Page: 6
[TMH2] Same as TMH4
Page: 6
[TMH3] Same as TMH4
Page: 8
[TMH4] This is a change from the wording used in the PEA manual, section 2.4.2 "Sampling Strategy" paragraph 2.
Page:
[TMH5] Didn't we get rid of the random sampling sheet completely? Plus, this sentence doesn't go with section 3 –d.
Page: 13
[TMH6] Same as TMH4

APPENDIX C

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1166

South Coast Air Quality Management District

(Adopted August 5, 1988)(Amended July 14, 1995)(Amended May 11, 2001)

RULE 1166. VOLATILE ORGANIC COMPOUND EMISSIONS FROM DECONTAMINATION OF SOIL

a) Applicability

This rule sets requirements to control the emission of Volatile Organic Compounds (VOC) from excavating, grading, handling and treating VOC-contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition.

(b) Definitions

(1) EXCAVATION is the process of digging out and removing materials, including any material necessary to that process such as the digging out and removal of asphalt or concrete necessary to expose, dig out and remove known VOC contaminated soil.

(2) GRADING is the process of leveling off to produce a smooth surface including the removal of any material necessary to that process such as asphalt and concrete necessary to expose known VOC contaminated soil.

(3) Soil decontamination Measure is any process approved by the Executive Officer to remediate, destroy, remove, or encapsulate VOC and VOC-contaminated soil.

(4) Underground Storage Tank means any one or combination of tanks, including pipes connected thereto, which is used for the storage of organic liquid which is more than 50% beneath the surface of the ground.

(5) VOC contaminated Soil is a soil which registers a concentration of 50 ppm or greater of Volatile Organic Compounds as measured before suppression materials have been applied and at a distance of no more than three inches from the surface of the excavated soil with an organic vapor analyzer calibrated with hexane.

(6) VOC contaminated Soil Mitigation PLAN is a plan to minimize VOC emissions to the atmosphere during excavation and any subsequent handling of VOC-contaminated soil.

(7) Volatile Organic Compound (VOC) is any volatile compound of carbon, excluding methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds. Exempt compounds are defined in Rule 102—Definition Of Terms.

(8) VOLATILE ORGANIC MATERIALS include gasoline, diesel, crude oil, lubricant, waste oil, adhesive, paint, stain, solvent, resin, monomer, and/or any other material containing VOC.

(c) Requirements

(1) A person excavating an underground storage tank and/or transfer piping storing or previously storing VOC materials, or excavating or grading soil containing VOC materials shall:

(A) Apply for, obtain and operate pursuant to a mitigation plan approved by the Executive Officer prior to commencement of excavation or handling. The mitigation plan general requirement and application requirements are found in Attachment A to this rule. A copy of the approved plan must be on site during the entire excavation period.

(B) Notify the Executive Officer at least 24 hours prior to excavation using a form approved by the Executive Officer which is fully completed.

If the excavation does not commence on start date, renotification is required.

An alternative notification procedure may be authorized for multiple excavations within a single facility, with prior written approval from the Executive Officer.

(C) Monitor for VOC contamination pursuant to subdivision (e), at least once every 15 minutes commencing at the beginning of excavation or grading and record all VOC concentration readings in a format approved by the Executive Officer; and

(D) When VOC-contaminated soil is detected during excavation or grading:

(i) Implement the approved mitigation plan (Attachment A).

(ii) Notify the Executive Officer within 24 hours of detection of VOC-contaminated soil.

(iii) Monitor and record VOC concentration readings as prescribed in the plan. Monitoring records must be kept available on site.

(iv) Keep calibration records for all monitoring instruments available on site.

(2) A person handling VOC-contaminated soil at or from an excavation or grading site shall:

(A) Segregate VOC-contaminated stockpiles from non-VOC contaminated stockpiles such that mixing of the stockpiles does not take place.

(B) Spray VOC-contaminated soil stockpiles with water and/or approved vapor suppressant and cover them with plastic sheeting for all periods of inactivity lasting more than one hour.

(C) Conduct a daily visual inspection of all covered VOC contaminated soil stockpiles to ensure the integrity of the plastic covered surfaces. A daily inspection record must be maintained on site.

(D) Comply with the provisions in subparagraph (c) (1)(A) and clause (c)(1)(D)(i).

(E) Maintain a record of the identification and business addresses of the generator, transporter and storage/treatment facilities. Such record shall be signed by each party at the time custody is transferred.

(F) Treat or remove contaminated soil from an excavation or grading site within 30 days from the time of excavation.

(3) If the VOC concentration in the excavated soil is measured at greater than 1000 ppm, spray the soil with water or vapor suppressant and:

(A) As soon as possible, but not more than 15 minutes, place the soil in sealed containers, or

(B) As soon as possible, but not more than 15 minutes, load into trucks, moisten with additional water, cover and transport off site, or

(C) Implement other alternative storage methods approved in writing by the Executive Officer.

(4) A person treating VOC-contaminated soil shall:

(A) Obtain a permit to construct and operate treatment equipment, as applicable, from the Executive Officer, and

(B) Implement VOC-contaminated soil decontamination measures, as approved by the Executive Officer in writing, which result in Best Available Control Technology applied during all segments, and which include, but are not limited to, at least one of the following:

(i) Installation and operation of an underground VOC collection system and a disposal system prior to excavation.

(ii) Collection and disposal of the VOC from the excavated soil on-site using equipment approved by the Executive Officer.

(iii) Any equivalent VOC-contaminated soil control measure previously approved in writing by the Executive Officer.

(5) A person shall not engage in or allow any on-site or off-site spreading, grading or screening of VOC-contaminated soil, which results in uncontrolled evaporation of VOC to the atmosphere.

(6) Loading trucks for contaminated soil must meet the following:

(A) The truck and trailer shall be adequately tarped prior to leaving the site; no excavated materials shall extend above the sides or rear of the truck or trailer to prevent soil spillage during transport, and

(B) The exterior of the truck, trailer and tires shall be cleaned off prior to the truck leaving the site.

(d) Exemptions

(1) The provisions of this rule shall not apply to the following:

(A) Excavation, handling, and treating of less than one (1) cubic yard of contaminated soil.

(B) Removal of soil for sampling purposes.

(C) Accidental spillage of five (5) gallons or less of VOC containing material.

(2) The provisions of paragraphs (c)(1) and (c)(2) shall not apply to soil excavation or handling as a result of an emergency as declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer. Whenever possible, the Executive Officer shall be notified by telephone prior to commencing such excavation. The Executive Officer shall be notified in writing no later than 48 hours following such excavation. Written notification shall include written emergency declaration from the authorized officer.

(e) Test Methods

(1) A person shall measure excavated soils for volatile organic compounds to determine contamination by:

(A) Using an organic vapor analyzer calibrated with hexane, complying with 40 CFR Part 60 Appendix A, EPA Reference Method 21 Section 3 or any equivalent method with prior approval in writing by the Executive Officer. If other calibrating gases are used, then the measured readings shall be correlated to and expressed as hexane.

(B) Placing the probe inlet at a distance of no more than three inches from the surface of the excavated soil and while slowly moving the probe across the soil surface, observe the instrument readout._If an increased meter reading is observed, continue to sample the excavated soil until the maximum meter reading is obtained. Leave the probe inlet at this maximum reading location for approximately double the instrument response time. If the maximum observed meter reading is greater than the 50 ppm standard in the regulation, record and report the results.

(2) The presence of VOC in stored or spillage materials shall be determined by SCAQMD Method 313 [Determination of Presence of Volatile Organic Compounds (VOC) in Headspace] and/or Method 304 (Determination of Volatile Organic Compounds in Various Materials) contained in the SCAQMD "Laboratory Methods of Analysis for Enforcement Samples" manual.

(f) Enforcement

(1) Violation of any provision of this rule or the violation of the approved mitigation plan shall be grounds for the Executive Officer to amend or revoke the mitigation plan, in addition to penalties provided by the Health & Safety Code.

(2) If the owner or operator is served with a Notice of Violation for creating a public nuisance, the owner or operator shall suspend operation until the public nuisance is mitigated to the satisfaction of the Executive Officer.

ATTACHMENT A

GENERAL MITIGATION PLANS REQUIREMENTS

VOC Contaminated Soil Mitigation Plans shall be written to minimize VOC emissions to the atmosphere during excavation, grading, handling and treatment of VOC contaminated soil. VOC Contaminated Soil Mitigation Plans shall consist of three types: Various Locations, Site Specific and Facility Treatment.

(1) General Requirements

(A) A plan is not transferable.

(B) A person responsible for the excavation, grading or handling of VOC contaminated soil must be completely familiar with the plan and must adhere to the plan requirement. The Executive Officer may require that the plan be signed by the owner and/or operator.

(C) A plan may be amended upon renewal.

(D) Permission to excavate, grade or handle VOC contaminated soil may be withdrawn by the District upon a finding by the Executive Officer that the excavation, grading or handling of the VOC contaminated soil is causing a public nuisance or violating other AQMD rules or regulations.

(2) Various Location Plans:

(A) Shall be limited to the excavation of 2000 cubic yards or less of VOC contaminated soil in any consecutive 12 month period at the same site.

(B) Shall not be used in conjunction with any other various location plan at the same site within a consecutive 12-month period.

(C) Shall expire after one year from issuance unless renewed.

(D) Shall not be issued for nor used for operations that involve grading, soil treatment or remediation, or landfills.

(3) Site Specific Plans:

(A) Shall be for excavation of greater than 2000 cubic yards of VOC contaminated soil.

(B) Shall be issued for specific excavation or grading locations for a period not to exceed two years.

(C) Shall not be renewable.

(4) Facility Treatment Plans:

(A) Shall be issued for a treatment facility at a permanent location.

(B) Shall expire after one year from issuance unless renewed.

(5) Applications for Site Specific Plans shall contain as a minimum:

(A) Reasons for excavation or grading.

(B) Cause of VOC soil contamination and history of the site.

(C) Description of tanks or piping associated with the soil contamination.

(D) An estimate of the amount of contaminated soil.

(E) The operating schedule for excavation and removal.

(F) Description of how the excavation or grading will be conducted.

(G) Description of mitigation measures for dust, odors and VOC.

(H) Details of disposal of VOC contaminated soil, including the ultimate receptor.

(I) Description of monitoring equipment and techniques.

(J) A map showing the facility layout, property line, and surrounding area up to 2500 feet away, and including any schools, residential areas or other sensitive receptors such as hospitals or locations where children or elderly people live or work.

(K) Designation of a person who can conduct a site inspection with the Executive Officer prior to issuance of the plan.

(6) Applications for Facility Treatment Plans shall at a minimum:

(A) Include a list of all AQMD permits to construct or operate which have been issued for that treatment and control equipment.

(B) Provide for the implementation of VOC-contaminated soil decontamination measures, as approved by the Executive Officer in writing, which result in Best Available Control Technology during all operations.

(C) Provide a map showing the facility layout including the location of all proposed VOC and non-VOC contaminated soil stockpiles.

(D) Specify the total amount of VOC contaminated soil proposed to be stockpiled on site.

(E) Provide for VOC contaminated soil stockpiles to be kept moist with water or suppressant and be covered to prevent fugitive emissions.

(F) Provide for VOC contaminated soil stockpiles to be segregated from non-VOC contaminated soil stockpiles.

(G) Provide for maintenance of records for stockpiles according to the source name, address and dates of reception.

(H) Provide for records of the generator, transporter and storage/treatment facilities and indicate their identification and business addresses. Such records shall be signed by each party at the time custody is transferred.

(I) Provide a map showing the facility layout, property line, and surrounding area up to 2500 feet away, and including any schools, residential area or other sensitive receptors such as hospitals, or locations where children or elderly people live or work.

(J) Designation of a person who can conduct a site inspection with the Executive Officer prior to issuance of the plan.

(K) Specify the operating schedule and maximum amount of VOC-contaminated soil proposed to be remediated on a daily basis.

(7) In approving a plan, the Executive Officer require reasonable conditions deemed necessary to ensure the operations comply with the plan and AQMD rules. The conditions may include, but shall not be limited to, procedures for ensuring responsibility for the implementation of the plan, accessibility to the site for AQMD staff, notification of actions required by the plan, identification of emission receptors, monitoring and testing, suppression and covering of stockpiles, prevention of public nuisance from VOC or dust emissions, prevention of fugitive emissions of VOC contaminated soil, loading of truck trailers, and disposal and treatment.

(8) In approving a plan, the Executive Officer may require any records deemed necessary to be maintained by the operator to demonstrate compliance with the plan. Such records shall be retained for at least 2 years and be made available to the Executive officer upon request.

AQMD Home Page
This page updated: May 30, 2001
URL: http://www.aqmd.gov/rules/html/r1166.html

APPENDIX D

HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN
BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

June 17, 2004
Project No. 205372001

APPROVED BY

Paul Roberts
Health and Safety Program Manager

6-17-04
Date

TABLE OF CONTENTS

Page

1. INTRODUCTION 1
2. PROJECT SAFETY PERSONNEL 2
3. WORK DESCRIPTION 3
4. HAZARD ASSESSMENT 4
   4.1. Confined Spaces 4
   4.2. Chemical Hazards 4
   4.3. Inhalation Hazard 4
   4.4. Dermal Exposure Hazard 5
   4.5. Explosion Hazard 5
   4.6. Noise Hazard 6
   4.7. Heat Stress Hazard 6
   4.8. Electrical Hazard 7
      4.8.1. Underground Utilities 7
      4.8.2. Overhead Power Lines 8
   4.9. Excavation Site Hazards 9
   4.10. Activity Hazard 9
   4.11. Heavy Equipment Operations 10
   4.12. Subsurface Earth Work 11
5. GENERAL HEALTH AND SAFETY REQUIREMENTS 11
   5.1. Medical Clearance and Monitoring 11
   5.2. Safety Orientation Meeting 11
   5.3. Restricted Access Work Zone 12
   5.4. Protective Equipment and Clothing 12
      5.4.1. Equipment Required For Field Personnel While Working in the Restricted Access Work Zone 12
      5.4.2. Respirator Usage 13
      5.4.3. Buddy System 14
6. ORGANIC VAPOR MONITORING 14
   6.1. Exposure Concerns 14
7. EMERGENCY RESPONSE PROCEDURES 14
   7.1. Physical Injury 14
   7.2. Fire, Explosion, and Property Damage 15
   7.3. Emergency Telephone Numbers 15
   7.4. Work Site Address 16
   7.5. Hospital Address and Route 16

Tables

Table 1 – General Clearances Required from Energized Overhead High-Voltage Conductors 8
Table 2 – Boom-Type Lifting or Hoisting Equipment Clearances Required from Energized Overhead High-Voltage Lines.....9

Figure

Figure 1 – Hospital Route

Appendices

Appendix A – Health and Safety Compliance Agreement
Appendix B – Health and Safety Orientation Meeting Attendance Roster
Appendix C – Title 8, California Code of Regulations Construction Safety Orders: Article 10 – Haulage and Earthmoving
Article 6 – Excavation, Trenches, and Earthwork
Appendix D – Organic Vapor Monitoring Documentation Form

1. INTRODUCTION

This document presents the health and safety procedures that are intended to guide field activities at the Bloomfield II Property located at 10806 Bloomfield Avenue in Santa Fe Springs, California (site). The provisions of this plan apply to Ninyo & Moore employees and its subcontractors. Employees of the Federal, State, and local agencies, the client, and the client-retained subcontractors, are expected to observe the safety rules and regulations as established by their respective organizations and the entities project-specific Health and Safety Plans (HSP), in addition to the requirements of this document. The HSP is intended to provide health and safety procedures for work conducted as a part of the grading operation.

The site consists of approximately 20 acres that was historically used for oil production and storage. As discussed herein, Arcadis has been working with the Regional Water Quality Control Board, Los Angeles Region (RWQCB) and Cenco Refining Company (Cenco, previous site owner) to successfully close environmental issues at the site. The environmental investigations were conducted on the larger portion of the site, referred to as the "Bloomfield II Property." These investigations have included soil, vapor, groundwater, and methane investigations; abandonment of oil wells; soil remediation; and a risk assessment. Based on the results of these investigations, impacted soil discovered in the majority of the site has been successfully remediated with the oversight and direction of the RWQCB. Based on the results of these activities, the RWQCB issued a No Further Action (NFA) letter dated April 15, 2004.

At the time of the above-described activities, a small area in the northwestern corner of the site was being leased by the Plegel Oil Company (Plegel) for the production and storage of crude oil (referred to herein as the "Plegel lease" or the "Plegel lease property"). A small area of crude oil-impacted soil has been discovered in the Plegel lease area. The vertical and lateral extent has been defined and is limited to the area beneath the existing aboveground storage tanks (ASTs; referred to herein as the "AST Area"). Ninyo & Moore has prepared a report entitled "Results of Subsurface Investigation, Bloomfield II Property, Plegel Oil Company Lease," dated February 13, 2004, and has submitted the report to the SFSFD for review. The report presents the results of these investigations and concludes that the residual concentrations of constituents discovered at

the site do not pose an environmental or health threat. Since the impacted soil discovered for the Plegel lease property is a "known feature," soil management/mitigation in the Plegel lease property will be presented in a work plan that will be prepared as part of the closure activities associated with the AST Area.

2. PROJECT SAFETY PERSONNEL

The General Contractor will be monitoring the site as part of the Soil Management Plan (SMP) requirements. Each contractor or consultant is required to have their own HSP that is in general accordance with the overall provisions of this plan and will be responsible for implementing that plan as well as providing the required monitoring. Personnel from Ninyo & Moore that are responsible for project safety include the Health and Safety Program Manager (H&SPM) and the Health and Safety Field Coordinator (Coordinator).

The H&SPM is responsible for delivering the plan and any addenda to the Coordinator. The H&SPM is responsible for distributing the plan to all field personnel and to an authorized representative of each firm that has a subcontract with Ninyo & Moore to conduct on-site work. The H&SPM is also responsible for implementing the provisions of this plan and its addenda. Implementation includes review of HSP requirements, review of field personnel compliance with medical examination requirements, review of the provisions of this plan with Owners representative (and its subcontractors), field personnel involved with the project, provision for safety equipment specified in Subsection 5.4, and submission of the requisite health and safety documents, including the forms in Appendix A and Appendix B.

The Coordinator is responsible for assisting the H&SPM with on-site implementation of this site safety plan. His/Her responsibilities include: (1) maintaining safety equipment supplies, (2) performing air quality measurements as specified in Subsections 3.0, 5.4.2, and 6.0, (3) directing decontamination operations and emergency response operations until public emergency personnel arrive on-site, (4) setting up work zone limits as specified in Subsection 5.3, and (5) reporting all accidents, incidents, and infractions of safety rules and requirements to the SMP Program Manager and the H&SPM.

The Coordinator has the authority to suspend work any time he judges that the provisions of the site safety plan are inadequate to provide a working environment conducive to worker safety, and he is to inform the SMP Program Manager and H&SPM of any individuals whose on-site presence jeopardizes their own health and safety or the health and safety of others.

3. WORK DESCRIPTION

As presented in the SMP, all known regulated environmental features in the Plegel lease area (i.e., ASTs, clarifier, wastewater systems, and oil wells) will be removed/abandoned in general accordance with current regulatory guidelines and under the oversight of the SFSFD, Santa Fe Springs Building Department (SFSBD), and/or the Division of Oil, Gas & Geothermal Resources (DOGGR). A work plan will be prepared and submitted to the SFSFD prior to the removal of the ASTs, clarifier, and wastewater systems. Any soil in the AST Area that does not meet the "upper 2 feet criteria" outlined in the SFSFD guidelines for stained and odorous soil will be excavated and removed from the site.

All known environmental features in the remaining portions of the site, including impacted soil, pipelines, and possible source areas, have been removed from the site. Based on this information and as presented in the SMP, the General Contractor's Project Manager and Project Site Superintendent will be responsible to monitor grading activities for possible unknown environmental features. If an unknown environmental feature, as defined by the SMP, is encountered, the General Contractor will secure the area and will notify the SMP Program Manager, the Owner's Environmental Manager, or the Owner's Project Director. The SFSFD will be notified of unknown environmental features discovered.

During necessary investigation and/or remediation activities, Ninyo & Moore personnel and subcontractors will have current HAZWOPER health and safety training. Ambient air quality within the work zone will be monitored for potentially hazardous materials (e.g., volatile organic compounds [VOCs]) using an organic vapor analyzer (OVA), or equivalent equipment calibrated to meet the requirements of South Coast Air Quality Management District (SCAQMD) Rule 1166.

4. HAZARD ASSESSMENT

The following subsections include potential hazards that may be present at the site or created as a result of the operations being conducted at the site.

4.1. Confined Spaces

A "confined space" is defined by the U.S. Department of Health and Human Services as a space that has one of the following characteristics:

1. Limited openings for entry and exit, such as tanks, tunnels, vaults, etc.,
2. Not designed for continuous worker occupancy, or
3. Unfavorable natural ventilation.

Work will not be conducted in confined space as defined by line items 1 and 2 listed above.

4.2. Chemical Hazards

According to historical land use and information obtained from previous investigations at the site, the majority of chemical compounds of concern that may be encountered during the grading, soil management, and soil sampling procedures are petroleum hydrocarbons (refined products such as gasoline, jet fuel, and diesel fuel, or crude oil), metals (such as arsenic and lead), and VOCs (such as benzene).

4.3. Inhalation Hazard

Although not expected, the vapor concentrations that may potentially be encountered during field activities may exceed currently published exposure limits. The following table provides guidelines as to the action required in response to a range of corresponding OVA and/or Dräger tube measurements of some of the most conservative chemical compounds that might be encountered. The measurements will be collected in the ambient air in the breathing zone of personnel working in the area. VOCs that could potentially be found at the site (listed in Subsection 4.2) should be measured during field activities.

Chemical	Routes of Entry	Respirator Protection Required	Stop Work	TWA
Gasoline (Blend)	Inhalation Dermal	50 ppm	150 ppm	300 ppm ACGIH TLV
Benzene	Inhalation Dermal	OVA = >25 ppm or Dräger = >0.5 ppm	OVA = >100 ppm or Dräger = >1 ppm	1 ppm
Methane	NA	NA	25% of the LEL	NA

Notes:
If concentrations at or above the stop-work thresholds are encountered, work must cease and the SMP Program Manager and Corporate Health and Safety Director must be contacted to render judgment whether more stringent respiratory protection is required and extension of the restricted access work zone is necessary.

TWA – Time-Weighted Average concentration for a normal 8-hour work day and a 40-hour work week, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.

ppm – Parts per million. For inhalation exposure, the exposure concentration is measured in the breathing zone of the individual (i.e., within 3 inches of the nose and mouth).

ACGIH – American Conference of Governmental Industrial Hygienists.

TLV – Threshold Limit Value. The time-weighted concentration for a normal 8-hour workday and a 40-hour work week, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.

NA – Not applicable.
LEL – Lower explosive limit.

4.4. Dermal Exposure Hazard

Contact of sufficient duration to cause significant skin absorption of toxic components is judged to be highly unlikely. Repeated daily or prolonged contact with the chemicals listed in Subsection 4.2 may potentially defat the skin and, over a long period of time, can lead to irritation and dermatitis. For this reason, wearing protective gloves and clothing as specified in Subsection 5.4 should minimize direct skin contact with chemicals potentially present. However, if dermal contact does occur, the exposed areas should be washed with soap and water immediately and rinsed thoroughly.

4.5. Explosion Hazard

Elevated methane concentrations that could be sources of an explosion may be present and the work area must be monitored for potential concentrations of explosive vapors. Caution must be taken to minimize sources of ignition. Cigarettes, open flames, and nonexplosion-

proof electrical motors, are prohibited within the restricted access work zone until the area has been cleared (Subsection 5.3).

4.6. Noise Hazard

Exposure to high levels of noise, both chronic and acute, can lead to different types of reactions. Acute (impulse) noise, such as noise associated with heavy equipment operation, jackhammers, drilling activities, and work performed in the flight path of aircraft, can afflict the operator with a temporary loss of hearing at certain frequencies associated with the equipment being used. Ordinarily, this loss is reversible and after a short period of time (less than a day) the hearing will return to normal. However, chronic exposure to this noise may eventually cause the hearing acuity to be permanently and irreversibly altered. The change may be subtle and could occur over a period of time.

Permanent noise-induced hearing loss is attributed to the intensity and frequency distribution of the noise, the time pattern and duration of exposure, and individual susceptibility. Sound levels (noise) are measured in dBAs. The Threshold Limit Values (TLV) for noise exposure is 85 dBA for an 8-hour duration and 90 dBA for a 4-hour duration. It is not expected that the noise level generated during this phase of work will exceed the TLV.

4.7. Heat Stress Hazard

Heat stress occurs when the body produces or absorbs more heat than it is able to dissipate. Heat is produced internally as the result of metabolic activity and increases with body activity or the level of physical work being performed. Heat can be absorbed by the body from ambient air and from the radiant heat of the sun.

The body's ability to absorb heat is therefore affected by factors such as the ambient air temperature and humidity, air density, radiant energy and cloud cover, wind velocity and airflow, and localized heat generation, such as that from power equipment. The body's ability to dissipate heat to the environment is dependent on factors such as the amount of heat and radiant energy in the ambient environment, exposure to the ambient or radiant heat in

that environment, and its own inherent ability to cool itself (perspiration). Exposure to ambient conditions is affected by such factors as wind velocity or airflow, cloud cover or shade, and the type of protective clothing being worn. Its ability to cool itself is affected by its own inherent biovariability.

Any of these factors may contribute to a loss of body fluids and electrolytes, and an increase in body temperature. A significant increase in body temperature can be life threatening and can rapidly become fatal or result in permanent injury. Heat stress may cause any of the following conditions: heat cramps, heat syncope (fainting), heat exhaustion, and/or heat stroke. If one of these conditions is experienced, call emergency service personnel immediately. To help prevent heat stress, it is recommended that liquids be easily available and frequently consumed during the day.

4.8. Electrical Hazard

Contact with electrical current can cause shock, electrical burns, and can be instantly fatal. The potential for exposure to electrical current exists through contact with electrical tools or equipment, generators and electrical control equipment, and overhead and underground power lines. Care must be taken to avoid contact with sources of electricity. Work will cease if lightning is observed or expected to occur.

Frayed electrical cords or electrical cords with damaged plugs shall not be used. Electrical cords shall not be used in proximity to water.

4.8.1. Underground Utilities

Prior to starting soil intrusive activities, all known underground utilities and lines shall be located and marked on the ground and on a site map. Locator services from Underground Service Alert (USA) and each utility company whose utility service may intersect the facility shall be requested. Soil intrusive work shall not proceed until all locating activities have been completed and are fully documented in the site records. The initial site safety orientation meeting for all personnel working on-site shall include

a review of the underground utility locations and where the site map will be located that shows the positions of any underground utility lines. The site safety orientation shall include a site walkover of each marked utility or line.

During the performance of work, should personnel encounter a subsurface condition that creates suspicion that there may be an unidentified underground line or utility, such an individual shall immediately cease work, secure his/her equipment, and notify the General Contractor, SMP Program Manager, H&SPM, and Coordinator.

4.8.2. Overhead Power Lines

Operation of equipment in the vicinity of overhead power lines shall be in accordance with Cal-OSHA Electrical Safety Orders. The subcontractor's field supervisors and operators shall take necessary precautions for implementing safe work practices under such conditions. The following information was excerpted from the Cal-OSHA Electrical Safety Orders.

Table 1 indicates the general clearances from electrical lines for personnel and erection, handling, or transportation of tools, machinery, materials, structures, or scaffolds from overhead high-voltage power lines. Table 2 indicates the general clearances for equipment such as drill rigs, cranes, and hoists.

Table 1 – General Clearances Required from Energized Overhead High-Voltage Conductors

Normal Voltage (Phase to Phase)	Minimum Required Clearance (feet)
600 to 50,000	6
50,000 to 345,000	10
345,000 to 750,000	16
750,000 to 1,000,000	20

Table 2 – Boom-Type Lifting or Hoisting Equipment Clearances Required from Energized Overhead High-Voltage Lines

Normal Voltage (Phase to Phase)	Minimum Required Clearance (feet)
600 to 50,000	10
50,000 to 75,000	11
75,000 to 125,000	13
125,000 to 175,000	15
175,000 to 250,000	17
250,000 to 370,000	21
370,000 to 550,000	27
550,000 to 1,000,000	42
Note: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.	

4.9. Excavation Site Hazards

The movement of grading equipment, tractors, backhoes, and trucks in the work zone, as it relates to the hazards associated with an excavation site, such as the cave-in of an excavation, requires a high awareness of safety on the part of the equipment operators. The subcontractors are expected to make sure that all of their operators at the site are experienced in excavations and are aware of the excavation site hazards. The boundary of the site is to be fenced, and movement of unauthorized personnel within the work zone prevented. The boundary of the site is to be clearly posted with the appropriate warning signs.

4.10. Activity Hazard

The principal type of activity hazard expected to be encountered during this operation includes the potential for falls, and adverse contact with tools and equipment. The experience of personnel with this type of equipment and the procedures outlined in this HSP should minimize potential safety hazards of this type. In addition, the safety equipment listed in

Subsection 5.4 that is required to be used for this operation should minimize the potential for injury to personnel.

4.11. Heavy Equipment Operations

As heavy equipment operations are to be conducted at the site, all haulage and earth moving shall, at a minimum, comply with the requirements set forth in Title 8, California Code of Regulations (CCR) Construction Safety Orders: a copy of this regulation is included in Appendix C, Article 10, Haulage and Earthmoving. As a part of the initial site safety orientation meeting (Subsection 5.2) equipment operators and any personnel (including foreman, supervisor, surveyors, grade checkers, etc.) associated with haulage and earth moving activity, shall carefully review these regulations and any other site-specific requirements. It is the responsibility of the subcontractor to monitor its personnel for compliance with these regulations and requirements. In particular, the following guidelines are to be followed by those involved with haulage and earth moving.

- Subcontractor-authorized personnel, trained in and familiar with the equipment, its operation, and safety provisions, will perform operations.
- Maintenance and/or adjustments to machinery will not be conducted while the equipment is operating or energized, unless continued operation is necessary in accordance with the machinery manufacturer's written specifications. All repairs will be performed in a designated equipment-repair work zone. Power will be disconnected or engines shut off prior to servicing equipment unless continued operation is necessary in accordance with the machinery manufacturer's written specifications. Power supplies/switches will be clearly labeled as such, to prevent accidental startup. Equipment being repaired will be appropriately blocked and/or secured.
- Only equipment with all guards and safety controls in place are to be permitted by the subcontractor to operate on-site.
- Equipment is to meet all Federal, State, and local standards and be mechanically sound and in good condition.
- Operators will perform daily safety inspections and necessary repairs are to be made before equipment is operated. If any equipment is judged to be unsafe during operation, it is to be taken out of service until it is repaired.

- When not in use, keys to equipment are to be removed and kept in a location remote from the equipment.

4.12. Subsurface Earth Work

At a minimum, all excavation activity conducted by subcontractors of Contractor shall comply with the requirements set forth in Title 8, CCR, Construction Safety Orders: a copy of this regulation is included in Appendix C, Article 6, Excavation, Trenches, and Earthwork. All bank, grades, and excavation walls shall be sloped to an angle of less than the angle of repose (but at no time at an angle of less than allowed in the regulations for the existing soil conditions) for the type of soil; alternatively, the excavation can be shored in accordance with applicable regulatory requirements. Trenches and pits more than 5 feet deep, and the bases of excavation embankments more than 5 feet high, will be considered hazardous areas, with no entry permitted unless the slope or shoring requirements have been met. Appendix C presents sloping and shoring information for the above-referenced section on Excavation, Trenches and Earthwork.

5. GENERAL HEALTH AND SAFETY REQUIREMENTS

5.1. Medical Clearance and Monitoring

All project personnel who may be required to wear respirators must have on file evidence that they have been cleared by a physician to wear a respirator. All personnel under subcontract to Ninyo & Moore must also provide this evidence to the Coordinator (upon request). All employees of Ninyo & Moore are to be active participants in the Contractor Medical Surveillance Program.

5.2. Safety Orientation Meeting

All field personnel must attend a safety orientation meeting before commencing the fieldwork. The meeting will be scheduled and conducted by the H&SPM or the Coordinator. The meeting will include presentation of the HSP and receipt of the required signed releases by the Coordinator.

5.3. Restricted Access Work Zone

A restricted access work zone (a minimum of 25 feet wide when possible) will be maintained around the work areas. Due to site conditions and constraints, it may be necessary to make modifications to the width/circumference of the restricted access zone. The Coordinator has the authority to make reasonable adjustments as he/she judges necessary. Protective clothing and equipment, as described below in Subsection 5.4, are to be worn by all personnel working within the restricted access work zone. The purpose of the restricted access work zone is to provide points of ingress and egress for personnel and equipment. The zone is to be demarcated with caution/hazard tape and barricades (or similar restricting material). The restricted access work zone is to be clearly labeled as such. In addition to the restricted access work zone, a gate should restrict vehicular access to the site when possible.

5.4. Protective Equipment and Clothing

5.4.1. Equipment Required For Field Personnel While Working in the Restricted Access Work Zone

Personnel working within the restricted access work zone are to wear the following equipment unless otherwise specified in writing by the Corporate Health and Safety Director and/or the H&SPM.

- Hardhat
- Boots (rubber steel-toed)
- Coveralls (disposable)
- Safety glasses
- Gloves (latex and/or nitrile)

Equipment to be Available On-Site

- First Aid Reference Guide
- Earplugs

- Two respirators (National Institute of Occupational Safety and Health/Mine Safety and Health Administration (NIOSH/MSHA)-approved half-mask with organic vapor cartridges)
- Dräger tubes and Dräger pump (optional)
- OVA and calibration gas
- Flammable gas detector and calibration gas (optional)
- First-aid kit with eye wash
- Fire extinguisher
- Construction tape and barriers to delineate restricted access work zone
- NO SMOKING signs
- Water and soap for washing
- A vehicle with keys in the ignition and headed in a direction for quick departure for the transport of slightly injured personnel to the hospital must be kept on-site when personnel are working. Severely injured personnel MUST be transported ONLY by paramedics (except as permitted in Subsection 7.1). A copy of the hospital address and route directions from Subsection 7.5 must remain in the vehicle.

5.4.2. Respirator Usage

The H&SPM is responsible for deciding if respiratory protection is required and if the level of respiratory protection used should be more stringent. If a decision is made to base respirator selection on OVA and/or Dräger tube measurements, refer to the table in Subsection 4.3 for critical concentrations. Subsection 6.1 presents organic vapor monitoring frequency and duration.

The conditions in Subsection 5.1 are to be complied with. Cartridges for the respirators must be replaced daily or when breakthrough occurs, whichever occurs first. All individuals intending to wear respirators need to be fit-tested or provide evidence of fit testing.

5.4.3. Buddy System

All field personnel while working in the restricted access work zone during the field activities are to work with another person at the site. The subcontractor's representative can serve as the second person while the work is being conducted in the field. Under no circumstances, other than completion of paper work at the end of the day, are field personnel to work alone at the site while conducting field activities.

6. ORGANIC VAPOR MONITORING

6.1. Exposure Concerns

In addition to the monitoring requirements established by SCAQMD Rule 1166 organic vapor concentrations (as measured by the OVA) in the breathing zone (the area nearest to the individual's mouth) of the individual working nearest to the potential vapor source must be monitored during field operations. Monitoring, using the OVA, should be conducted at approximate 30-minute intervals, for a sampling duration of approximately 60 seconds while work is being conducted. Occasionally, the monitoring frequency may be modified at the discretion of the Coordinator due to changes in field activities. All measurements, as well as the time of day the measurements were collected, must be documented. A form that can be used to document these measurements is presented in Appendix D. Daily field logs can be used to document these measurements also. Refer to Subsection 4.3 for guidelines to judge when respiratory protection is necessary based on OVA measurements.

7. EMERGENCY RESPONSE PROCEDURES

7.1. Physical Injury

In the event of an accident resulting in physical injury, call emergency service personnel immediately and perform first aid commensurate with training and seriousness of the injury. Severely injured personnel are to be transported only by emergency service personnel and/or by ambulance personnel, unless a life-threatening condition is judged to exist that must be

addressed immediately. If emergency or ambulance personnel transport injured personnel to the hospital, the hospital will be selected at the discretion of the emergency or ambulance personnel. The hospital selected may or may not be the hospital listed in Subsection 7.5 of this document. At the hospital, a physician's attention is mandatory regardless of how serious the injury appears.

The SMP Program Manager and H&SPM are to be notified by the Coordinator, as soon after the injury as practical, regarding the nature of the accident. A written report is also to be prepared and submitted by the Coordinator to the H&SPM within 24 hours of the accident. If the Coordinator is unable to make the report (due to injury), an individual designated by the H&SPM shall make the report.

7.2. Fire, Explosion, and Property Damage

In the event of a fire or explosion, notify the fire department immediately by dialing 911.

The H&SPM is to be notified by the Coordinator as soon as practical and a written report prepared within 24 hours of the accident.

In the event of any accident involving serious injury of sufficient magnitude, work at the site shall cease until the Corporate Health and Safety Director and/or the H&SPM (or a designee) has completed a review of the events and site conditions and has authorized work to resume.

7.3. Emergency Telephone Numbers

Fire Department	911
Police Department	911
Paramedics	911

7.4. Work Site Address

The site is located on the northeast corner of Lakeland Road and Bloomfield Avenue, Santa Fe Springs, California.

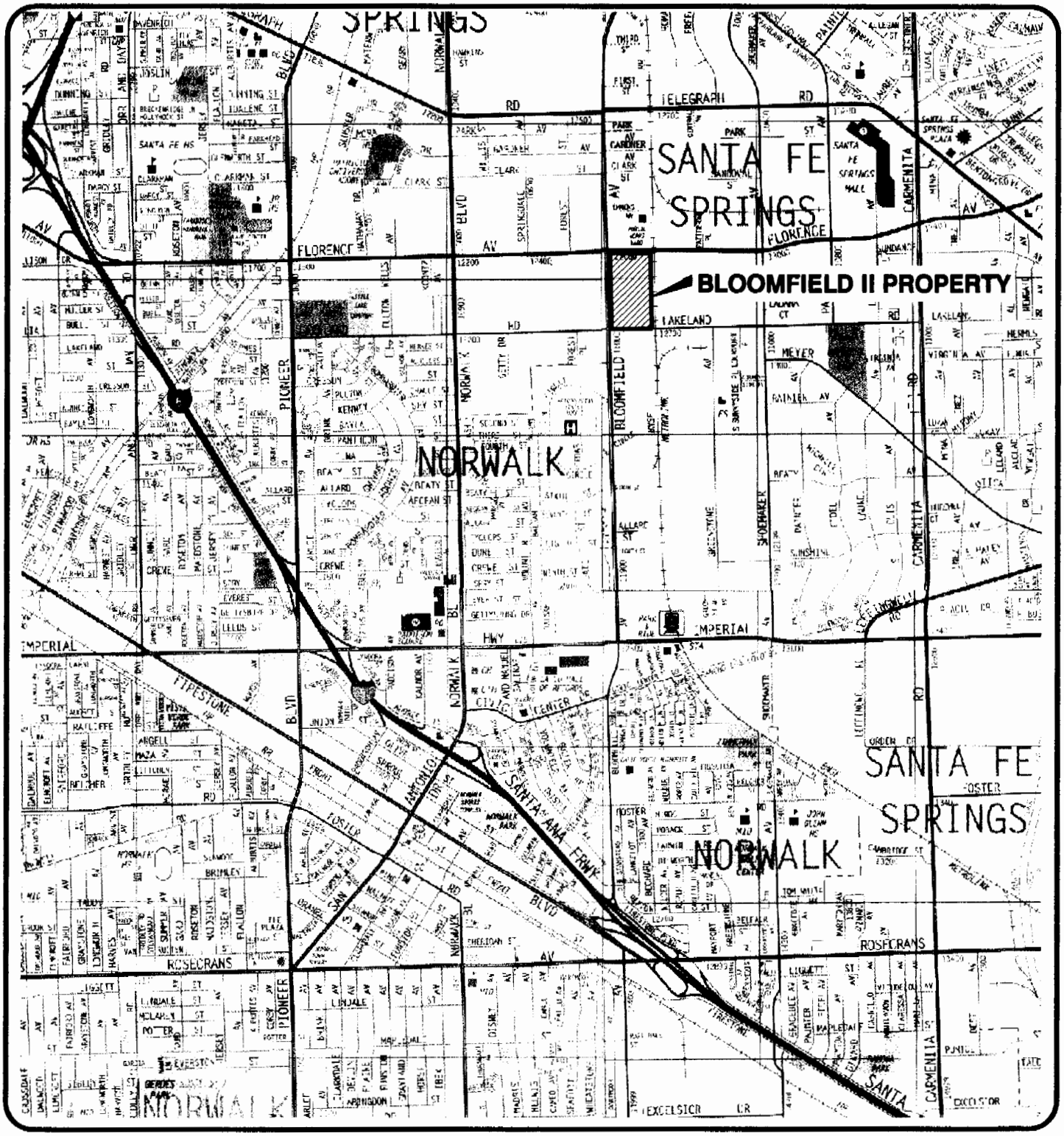
7.5. Hospital Address and Route

See attached map from Thomas Brothers Guide, Los Angeles County, 2002, Page 707

Presbyterian Inter-Community Hospital
12401 East Washington Boulevard
Whittier

Telephone: 562-698-0811

Route: As presented on the attached map, from the site turn right (north) onto Bloomfield Avenue and travel approximately 2 miles to Lambert Road; turn left (northwest) on Lambert Road, past Washington Boulevard; the hospital is on the right hand side of the road.



205372-A1.DWG

REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372001	6/2004	1

APPENDIX A

HEALTH AND SAFETY COMPLIANCE AGREEMENT

Copy:_____

CONTRACTOR HEALTH AND SAFETY COMPLIANCE AGREEMENT

Project Name:_____

I, _____(PRINT NAME), have received a copy of the entire Health and Safety Plan for the above-referenced project. I have read the plan, understand it, and agree to comply with all of the health and safety requirements. I understand that I may be prohibited from working on the project for violating any of the requirements.

I have been approved to wear a respirator by a physician based on medical examination. I have been trained in the appropriate use, care, and storage of respiratory equipment. I have been respirator fit-tested, and I will have my respirator available for use in the field. I understand that I am to use the equipment supplied to me by my employer. I further understand that this equipment is provided solely for my benefit with the intent to minimize my exposure to potentially hazardous conditions. In the event of such usage, I agree to indemnify and hold harmless Contractor and all of its employees from and against any and all losses, demands, claims, liabilities, lawsuits, damages, costs, and expenses arising, in any way, from the use of the equipment.

Visitors will not receive a copy of the Health and Safety Plan but will be required to review it. It is required that visitors be escorted in the restricted access work zone. Visitors must comply with the Contractor escort directions while on-site at all times. Non-compliance with escort directions will not be tolerated, and violators will be requested to leave the site immediately.

Thank you for your cooperation.

_____ _____

Signature Date

Note: This original signed agreement is to be placed in the referenced project file.

APPENDIX B

HEALTH AND SAFETY ORIENTATION MEETING ATTENDANCE ROSTER

HEALTH AND SAFETY ORIENTATION MEETING ATTENDANCE ROSTER

The following personnel involved in the field activities have attended a Health and Safety Plan orientation meeting.

By initialing this form, each person acknowledges that he/she has read and understands the indicated, numbered copy of the Health and Safety Plan.

Copy	Name	Company	Date	Attendees Initial
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

Meeting Date: _____

Meeting Leader: _____

Project Name: _____

APPENDIX C

TITLE 8, CALIFORNIA CODE OF REGULATIONS
CONSTRUCTION SAFETY ORDERS

ARTICLE 10
HAULAGE AND EARTHMOVING

ARTICLE 6
EXCAVATION, TRENCHES, AND EARTHWORK

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 10. Haulage and Earth Moving
§1590. Haulage and Earth Moving, General.

§1590. Haulage and Earth Moving, General.

• Note • History

(a) Private Roadways and Off-Highway Conditions.

(1) Single-lane private roads with two-way traffic shall be provided with turnouts. Where turnouts are not practicable, a control system shall be provided to prevent vehicles from meeting on such single-lane roads.

(2) On private roads used for two-way traffic, arrangements shall be such that vehicles travel on the right side as much as possible. Signs shall be posted to clearly indicate variations from this system. Where practicable, separate haulage roads shall be provided between loaded and empty units. Haulage roads shall be wide enough to allow for safe passage. Safe distances between moving units shall be maintained.

Note: Left hand traffic patterns are permitted provided that vehicle operators are advised of the pattern and job site conditions warrant that the procedure is safe.

(3) Private roads shall be maintained free from holes and ruts that affect the safe control of the vehicle. Every emergency access ramp and berm used by an employer shall be constructed to restrain and control runaway vehicles.

(4) Where a hazard exists to employees because of traffic or haulage conditions, a system of traffic controls shall be required so as to abate the hazard. (See Section 1598(b)).

Note: Nothing in this subsection shall preclude the use of additional signs that are not included in the Manual referenced in Section 1598(b). Examples: "Haul Road," "Left Hand Pattern," "Scraper Crossing," etc.

(5) Employees, such as grade-checkers, surveyors and others exposed to vehicular traffic, shall wear flagging garments, or equivalent, as required for flaggers. (See Section 1598(c)).

Note: See Index No. 5-07 of the Manual referenced in Section 1598.

(b) Dust Control. Action shall be taken to prevent dust from seriously reducing visibility. In dusty operations, equipment operators shall use adequate respiratory protection.

(c) Equipment Control.

(1) Equipment shall be under control at all times and shall be kept in gear when descending grades.

(2) No vehicle shall be driven at a speed greater than is reasonable and proper, with due regard for weather, traffic, intersections, width and character of the roadway, type of motor vehicle, and any other existing conditions.

(d) Exhaust. Arrangements shall be made to direct exhaust gases away from the operator's breathing zone.

(e) Heat Shields. When push-tractors are working in tandem, heat shields, or equivalent protection, shall be provided for operators.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment of subsection (e) and new subsections (f), (g) and (h) filed 10-2-70; effective thirtieth day thereafter (Register 70, No. 40).
2. Amendment of subsections (a) and (d) filed 5-21-75; effective thirtieth day thereafter (Register 75, No. 21).
3. Repealer and new section filed 11-12-75; effective thirtieth day thereafter (Register 75, No. 46).
4. Amendment of subsections (a) and (c) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

§1591. Haulage Vehicles, Equipment-Construction and Maintenance.

• Note • History

(a) Windshields complying with the applicable provisions of the Vehicle Code shall be provided and maintained on haulage vehicles and scrapers.

(b) Equipment and accessories installed on haulage vehicles shall be arranged so as to avoid impairing the driver's operational vision to the front or sides.

(c) Brakes, General. Service brake systems for self-propelled, rubber-tired, off-highway equipment manufactured before January 1, 1972 (for scrapers January 1, 1971) shall meet minimum performance criteria for service brake systems as set forth in the Society of Automotive Engineers Recommended Practices listed below. Service, emergency and parking brake systems for self-propelled, rubber-tired, off-highway equipment manufactured after January 1, 1972 (for scrapers January 1, 1971) shall meet the applicable minimum performance criteria for each system as set forth in the same Society of Automotive Engineers Recommended Practices:

Self-Propelled Graders	SAE J236-1971
Trucks and Wagons	SAE J166-1971
Front-End Loaders & Dozers	SAE J237-1971
Self-Propelled Scrapers	SAEJ319b-1971

Note: Equipment that meets the performance criteria of SAE Recommended Practice J1152-APR 1980, Braking Performance--Rubber-Tired Construction Machines, satisfies the requirements of this Section.

(d) Air Tank Service. Liquids should be drained automatically from vehicle's compressed air tanks, but if such automatic equipment is not provided, the tanks shall be drained manually at least once each operating shift.

(e) Cab Shield. Haulage vehicles, whose pay load is loaded by means of cranes, power shovels, loaders, or similar equipment, shall have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.

(f) Fenders. Fenders complying with the following standards from SAE Recommended Practice J321, November, 1967 or J321b April, 1978, shall be provided on new scrapers, carryalls, related power units, and trailed hauling units manufactured and placed into service after January 1, 1971.

(g) Lights. Whenever visibility conditions warrant additional light, all vehicles, or combinations

of vehicles, in use shall be equipped with at least two headlights and two taillights in operable condition.

(h) Canopy. Crawler tractors, bulldozers, carryalls and similar equipment manufactured and used prior to April 1, 1971, except for scrapers, front-end loaders and new equipment covered by 1596, shall have canopy protection and seat belts for the operator when used where there is exposure to falling or rolling objects.

(i) Operating Levers. Operating levers controlling hoisting or dumping devices on haulage bodies shall be equipped with a latch or other device which will prevent accidental starting or tripping of the mechanism.

(j) Trip Handles. Trip handles for tailgates of dump trucks shall be so arranged that in dumping, the operator will not be exposed either to the hazard of being struck by falling material or any part of the truck.

(k) Dump Bodies. Haulage vehicles equipped with dump bodies that tilt to release their load by gravity through an opening at the rear or side shall be provided with a device that gives the operator a clearly audible or visible warning when sufficient force is applied by the elevating mechanism to cause or sustain dump body elevation.

(*l*) Hazard Signals. Tractor-scrapers (self-propelled) pushed by other equipment during loading operations shall be provided with a clearly audible or visible warning device that can be activated by the operator of the tractor-scraper to communicate an "ALL STOP" warning to the pushing equipment in event of an emergency.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Repealer of subsection (d), renumbering of subsections (e)-(k) to subsections (d)-(j), and new subsections (k) and (l) filed 3-19-79; effective thirtieth day thereafter (Register 79, No. 12). For prior history, see Register 75, No. 21.

2. Amendment of subsection (k) EXCEPTION filed 4-27-79; effective thirtieth day thereafter (Register 79, No. 17).

3. Editorial correction of subsection (k) (Register 79, No. 24).

4. Repealer and new subsections (k) and (l) filed 5-6-81; effective thirtieth day thereafter (Register 81, No. 19).

5. Amendment of subsections (a)-(g) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 10. Haulage and Earth Moving
§1591. Haulage Vehicles, Equipment-Construction and Maintenance.

§1591. Haulage Vehicles, Equipment-Construction and Maintenance.

• Note • History

(a) Windshields complying with the applicable provisions of the Vehicle Code shall be provided and maintained on haulage vehicles and scrapers.

(b) Equipment and accessories installed on haulage vehicles shall be arranged so as to avoid impairing the driver's operational vision to the front or sides.

(c) Brakes, General. Service brake systems for self-propelled, rubber-tired, off-highway equipment manufactured before January 1, 1972 (for scrapers January 1, 1971) shall meet minimum performance criteria for service brake systems as set forth in the Society of Automotive Engineers Recommended Practices listed below. Service, emergency and parking brake systems for self-propelled, rubber-tired, off-highway equipment manufactured after January 1, 1972 (for scrapers January 1, 1971) shall meet the applicable minimum performance criteria for each system as set forth in the same Society of Automotive Engineers Recommended Practices:

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Note: Equipment that meets the performance criteria of SAE Recommended Practice J1152-APR 1980, Braking Performance--Rubber-Tired Construction Machines, satisfies the requirements of this Section.

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(e) Cab Shield. Haulage vehicles, whose pay load is loaded by means of cranes, power shovels, loaders, or similar equipment, shall have a cab shield and/or canopy adequate to protect the operator from shifting or falling materials.

(f) Fenders. Fenders complying with the following standards from SAE Recommended Practice J321, November, 1967 or J321b April, 1978, shall be provided on new scrapers, carryalls, related power units, and trailed hauling units manufactured and placed into service after January 1, 1971.

(g) Lights. Whenever visibility conditions warrant additional light, all vehicles, or combinations of vehicles, in use shall be equipped with at least two headlights and two taillights in operable condition.

(h) Canopy. Crawler tractors, bulldozers, carryalls and similar equipment manufactured and used

prior to April 1, 1971, except for scrapers, front-end loaders and new equipment covered by 1596, shall have canopy protection and seat belts for the operator when used where there is exposure to falling or rolling objects.

(i) Operating Levers. Operating levers controlling hoisting or dumping devices on haulage bodies shall be equipped with a latch or other device which will prevent accidental starting or tripping of the mechanism.

(j) Trip Handles. Trip handles for tailgates of dump trucks shall be so arranged that in dumping, the operator will not be exposed either to the hazard of being struck by falling material or any part of the truck.

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(*l*) Hazard Signals. Tractor-scrapers (self-propelled) pushed by other equipment during loading operations shall be provided with a clearly audible or visible warning device that can be activated by the operator of the tractor-scraper to communicate an "ALL STOP" warning to the pushing equipment in event of an emergency.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Repealer of subsection (d), renumbering of subsections (e)-(k) to subsections (d)-(j), and new subsections (k) and (l) filed 3-19-79; effective thirtieth day thereafter (Register 79, No. 12). For prior history, see Register 75, No. 21.

2. Amendment of subsection (k) EXCEPTION filed 4-27-79; effective thirtieth day thereafter (Register 79, No. 17).

3. Editorial correction of subsection (k) (Register 79, No. 24).

4. Repealer and new subsections (k) and (l) filed 5-6-81; effective thirtieth day thereafter (Register 81, No. 19).

5. Amendment of subsections (a)-(g) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

§1592. Warning Methods.

• Note • History

(a) Every vehicle with a haulage capacity of 2 1/2 cubic yards or more used to haul dirt, rock, concrete, or other construction material shall be equipped with a warning device that operates automatically while the vehicle is backing. The warning sound shall be of such magnitude that it will normally be audible from a distance of 200 feet and will sound immediately on backing. In congested areas or areas with high ambient noise which obscures the audible alarm, a signaler, in clear view of the operator, shall direct the backing operation.

(b) Those vehicles not subject to 1592(a) and operating in areas where their backward movement would constitute a hazard to employees working in the area on foot, and where the operator's vision is obstructed to the rear of the vehicle shall be equipped with an effective device or method to safeguard employees such as:

(1) An automatic back-up audible alarm which would sound immediately on backing, or

(2) An automatic braking device at the rear of the vehicle that will apply the service brake immediately on contact with any obstruction to the rear, or

(3) In lieu of 1 or 2 above, administrative controls shall be established such as:

(A) A spotter or flagger in clear view of the operator who shall direct the backing operation, or

(B) Other procedures which will require the operator to dismount and circle the vehicle immediately prior to starting a back-up operation, or

(C) Prohibiting all foot traffic in the work area.

(4) Other means shall be provided that will furnish safety equivalent to the foregoing for personnel working in the area.

(c) All vehicles shall be equipped with a manually operated warning device which can be clearly heard from a distance of 200 feet.

(d) The operator of all vehicles shall not leave the controls of the vehicle while it is moving under its own engine power.

(e) Hauling or earth moving operations shall be controlled in such a manner as to ensure that equipment or vehicle operators know of the presence of rootpickers, spotters, lab technicians, surveyors, or other workers on foot in the areas of their operations.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 10. Haulage and Earth Moving
§1592. Warning Methods.

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NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New subsections (c) and (d) filed 5-21-75; effective thirtieth day thereafter (Register 75, No. 21).
2. Repealer and new section filed 7-3-80; effective thirtieth day thereafter (Register 80, No. 27).

3. Amendment of subsections (a), (b) and (e) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

§1593. Haulage Vehicle Operation.

• Note • History

(a) Vehicles shall not be operated at speeds which will endanger the driver or traffic.

(b) Haulage vehicles shall be under positive control during all periods of operation. When descending grades, the vehicles shall be kept in gear.

(c) When wire rope is being wound on a power-driven drum, a mechanical threading device shall be used, where practicable, to guide the cable. When this operation must be done manually, the feet shall not be used and the hands shall be kept at least 3 feet from the drum.

(d) All vehicles in use shall be checked at the beginning of each shift to assure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use: service brakes, including trailer brake connections; parking system (hand brake); emergency stopping system (brake); tires; horn; steering mechanism; coupling devices; seat belts; operating controls; and safety devices. All defects affecting safe operation shall be corrected before the vehicle is placed in service. These requirements also apply to equipment such as lights, reflectors, windshield wipers, defrosters, fire extinguishers, etc., where such equipment is necessary.

(e) Exhaust Gases. Vehicle engines shall not be allowed to run in closed garages or other enclosed places, unless vents are provided which effectively remove the exhaust gases from the building.

(f) Unstable Loads. Loads on vehicles shall be secured against displacement.

(g) Tire Repair. Except for emergency field repairs, a safety tire rack, cage, or equivalent protection shall be used when inflating truck or equipment tires after mounting on a rim, if such tires depend upon a locking ring or similar device to hold them on the rim.

(h) Parking Brakes. Whenever the equipment is parked, the parking brake shall be set. Equipment parked on inclines shall have the wheels chocked and the parking brake set or be otherwise prevented from moving by effective mechanical means.

(i) Scissor points on all front-end loaders which constitute a hazard to the operator shall be adequately guarded.

(j) A loader shall not travel without adequate visibility for the driver and stability of the equipment.

(k) No loading device shall be left unattended until the load or bucket is lowered to the ground, unless proper precautions such as blocking are taken to prevent accidental lowering.

(*l*) All high lift trucks (e.g., fork lifts), industrial trucks, and rider trucks used on a construction site shall conform with the applicable orders in Article 25 of the General Industry Safety Orders and:

(1) If a load is lifted by two or more trucks working in unison, the proportion of the total load carried by any one truck shall not exceed its capacity.

(2) Steering or spinner knobs shall not be attached to the steering wheel unless the steering mechanism is of a type that prevents road reactions from causing the steering handwheel to spin. The steering knob shall be mounted within the periphery of the wheel.

(m) Loading buckets, scoops, blades or similar attachments on haulage vehicles which do not provide fall protection equivalent to that required by Section 3210 of the General Industry Safety

Orders or Article 24 of the Construction Safety Orders (starting with Section 1669) shall not be used as work platforms or to elevate or transport employees except as provided by Section 1597 of these Orders.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 10. Haulage and Earth Moving
§1593. Haulage Vehicle Operation.

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(b) Haulage vehicles shall be under positive control during all periods of operation. When descending grades, the vehicles shall be kept in gear.

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(d) All vehicles in use shall be checked at the beginning of each shift to assure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage that could cause failure while in use: service brakes, including trailer brake connections; parking system (hand brake); emergency stopping system (brake); tires; horn; steering mechanism; coupling devices; seat belts; operating controls; and safety devices. All defects affecting safe operation shall be corrected before the vehicle is placed in service. These requirements also apply to equipment such as lights, reflectors, windshield wipers, defrosters, fire extinguishers, etc., where such equipment is necessary.

(e) Exhaust Gases. Vehicle engines shall not be allowed to run in closed garages or other enclosed places, unless vents are provided which effectively remove the exhaust gases from the building.

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(i) Scissor points on all front-end loaders which constitute a hazard to the operator shall be adequately guarded.

(j) A loader shall not travel without adequate visibility for the driver and stability of the equipment.

(k) No loading device shall be left unattended until the load or bucket is lowered to the ground, unless proper precautions such as blocking are taken to prevent accidental lowering.

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(1) If a load is lifted by two or more trucks working in unison, the proportion of the total load

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(2) Steering or spinner knobs shall not be attached to the steering wheel unless the steering mechanism is of a type that prevents road reactions from causing the steering handwheel to spin. The steering knob shall be mounted within the periphery of the wheel.

(m) Loading buckets, scoops, blades or similar attachments on haulage vehicles which do not provide fall protection equivalent to that required by Section 3210 of the General Industry Safety Orders or Article 24 of the Construction Safety Orders (starting with Section 1669) shall not be used as work platforms or to elevate or transport employees except as provided by Section 1597 of these Orders.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New subsection (i) filed 5-21-75; effective thirtieth day thereafter (Register 75, No. 21).

2. Amendment of subsection (a), repealer of former subsection (c), relettering and amendment of former subsections (d) and (e) to subsections (c) and (d) and relettering of former subsections (f)-(i) to subsections (e)-(h) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

3. New subsections (i)-(*l*) filed 8-29-86; effective thirtieth day thereafter (Register 86, No. 39).

4. Amendment of subsection (d) and new subsection (m) filed 4-11-94; operative 5-11-94 (Register 94, No. 15).

§1594. Fueling.

• Note • History

(a) No internal combustion engine fuel tank shall be refilled with a flammable liquid while the engine is running. Fueling shall be done in such a manner that the likelihood of spillage is minimal. If a spill occurs it shall be washed away completely, evaporated, or equivalent action taken to control vapors before restarting the engine. Fuel tank caps shall be replaced before starting the engine.

(b) A good metal-to-metal contact shall be kept between fuel supply tank or nozzle of supply hose and the fuel tank.

(c) No open lights, welding, or sparking equipment shall be used near internal combustion equipment being fueled or near storage tanks.

(d) No smoking shall be permitted at or near the gasoline storage area or on equipment being fueled. Post a conspicuous sign in each fuel storage and fueling area stating: "*NO SMOKING WITHIN 25 FEET.*"

(e) Class I liquids shall not be dispensed by pressure from drums, barrels, and similar containers. Approved pumps taking suction through the top of the container or approved self-closing faucets shall be used.

(f) No repairs shall be made to equipment while it is being fueled.

(g) Each fuel storage tank or drum shall have the word "Flammable" conspicuously marked thereon and should also have a similarly sized word indicating the contents of the container.

(h) A dry chemical or carbon dioxide fire extinguisher rated 6:BC or larger shall be in a location accessible to the fueling area.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New section title, and repealer and new subsection (a) filed 3-19-79; effective thirtieth day thereafter (Register 79, No. 12).

2. Amendment of subsections (e) and (h) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 10. Haulage and Earth Moving
§1594. Fueling.

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(h) A dry chemical or carbon dioxide fire extinguisher rated 6:BC or larger shall be in a location accessible to the fueling area.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New section title, and repealer and new subsection (a) filed 3-19-79; effective thirtieth day thereafter (Register 79, No. 12).
2. Amendment of subsections (e) and (h) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

§1595. Repair of Haulage Vehicles, Tractors, Bulldozers and Similar Equipment.

• Note • History

(a) No repairs shall be attempted on power equipment until arrangements are made to eliminate possibility of injury, caused by sudden movements or operation of the equipment or its parts.

When the equipment being repaired is a bulldozer, carryall, ripper, or other machine having sharp or heavy moving parts such as blades, beds, or gates, such parts shall be lowered to the ground or securely and positively blocked in an inoperative position.

All controls shall be in a neutral position, with the engine(s) stopped and brakes set, unless work being performed requires otherwise.

(b) Trucks with dump bodies shall be equipped with positive means of support, permanently attached, and capable of being locked in position to prevent accidental lowering of the body while maintenance or inspection work is being done. In all cases where the body is raised for any work, the locking device shall be used.

NOTE

Authority cited: Section 142.3, Labor Code: Reference: Section 142.3, Labor Code.

HISTORY

1. Repealer of subsections (b) through (f) filed 10-2-70; effective thirtieth day thereafter (Register 70, No. 40).
2. Amendment filed 5-21-75; effective thirtieth day thereafter (Register 75, No. 21).
3. Amendment filed 3-19-79; effective thirtieth day thereafter (Register 79, No.12).
4. Amendment of subsection (a) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

§1596. Roll-Over Protective Structures (ROPS).

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 10. Haulage and Earth Moving
§1595. Repair of Haulage Vehicles, Tractors, Bulldozers and Similar Equipment.

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NOTE

Authority cited: Section 142.3, Labor Code: Reference: Section 142.3, Labor Code.

HISTORY

1. Repealer of subsections (b) through (f) filed 10-2-70; effective thirtieth day thereafter (Register 70, No. 40).
2. Amendment filed 5-21-75; effective thirtieth day thereafter (Register 75, No. 21).
3. Amendment filed 3-19-79; effective thirtieth day thereafter (Register 79, No.12).
4. Amendment of subsection (a) filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

§1596. Roll-Over Protective Structures (ROPS).

• Note • History

(a) Installation Schedule. ROPS and seat belts (see Section 1596(g)) shall be installed and used on all equipment specified in this section in accordance with the following effective dates for each type or use of equipment listed below:

Note: The provisions of this section do not apply to non-rider equipment.

(1) Scrapers, tractors, front-end loaders, bulldozers, motor graders and water wagon prime movers having brake horsepower ratings above 20:

Equipment Manufacture Dates	*Effective Date for ROPS and Seat Belts*
(A) On or after April 1, 1971	April 1, 1971

(B) On or after July 1, 1969 and prior to April 1, 1971	January 1, 1977
(C) On or after January 1, 1960 and prior to July 1, 1969	July 1, 1977
(D) Prior to January 1, 1960 (If operated under any of the conditions specified in Section 1596(a)(2)(B), (i) or (ii) or (iii).)	July 1, 1977

EXCEPTIONS to Section 1596(a)(1):

(1) Side boom, pipe-laying tractors.

(2) An operator restraining system, acceptable to the Division, shall be permitted to be used in lieu of the required seat belts on motor graders not designed for seated operations.

(3) ROPS or seat belts shall not be required for the equipment identified in Section 1596(a)(1)(D) when loading/unloading from transportation vehicles on relatively flat surfaces.

(2) Rollers and compactors having a weight greater than 5,950 pounds.

(A) Rollers or compactors having segmented and/or sheepsfoot-type wheels or drums by July 1, 1977.

(B) All rollers and compactors (other than those specified in Section 1596(a)(2)(A)) when operating under any of the following conditions on or after July 1, 1977:

(i) Parallel to and within 3 feet of a down slope steeper than 3 feet horizontal to 1 foot vertical, or

(ii) Within 3 feet of a vertical or nearly vertical drop-off exceeding 1 foot in height, or

(iii) On any grade exceeding 15 percent (10 feet horizontal to 1 1/2 feet vertical).

EXCEPTIONS to Section 1596(a)(2)(B):

(1) Smooth, steel wheel rollers where the operator stands at the extreme rear of the vehicle.

(2) Rollers and compactors identified in Section 1596(a)(2)(B) when loading/unloading from transportation vehicles on relatively flat surfaces.

(b) ROPS Approval. ROPS shall be approved for their intended use as defined in Section 1505 of these Orders.

EXCEPTION: See Section 1596(i).

(c) Overhead Protection. ROPS shall provide operator protection against the hazard of falling objects.

(d) Retrofit Design Criteria. The following items comprise the basic design criteria for retrofit ROPS used on scrapers, tractors, front-end loaders, bulldozers, motor graders and water wagon prime movers manufactured prior to April 1, 1971, and for rollers and compactors manufactured

prior to July 1, 1977:

(1) Designs shall be based on one of the following:

(A) SAE Recommended Practice J-1040-a, February, 1975, or

(B) Structural analysis calculations equivalent to SAE J-1040-a, or

(C) Capability to support at least 2 times the gross machine weight applied vertically subsequent to an independently applied side load not less than 1.25 times the gross machine weight applied horizontally at the top of ROPS.

Note: 1. Gross vehicle weight includes the ROPS, all fuels and other components required for normal use of the vehicle.

2. The structural characteristics of the vehicle frame must be included in the design of the ROPS system.

3. The mounting brackets shall be capable of withstanding vibration and the design loads applied to the ROPS.

(2) The inside dimensions of the ROPS shall meet the deflection limiting volume requirements of SAE J-397-a, July, 1973.

(3) The design of the ROPS shall be approved by a registered civil or mechanical engineer.

EXCEPTION: See Section 1596(i).

(e) Modification or Repair. ROPS required by Section 1596(a) may be modified or repaired providing such modification or repair complies with the provisions of Section 1596(d) or Federal OSHA standard 1926.1000(c)(2).

(f) Labeling. Each ROPS shall bear a label with the following information:

(1) Name and address of manufacturer.

(2) Manufacturer's ROPS model number.

(3) Make and model of equipment for which the ROPS is designed.

Labels shall be stamped plates or other permanently attached means of identification, and shall not be obscured, obliterated or changed.

(g) Seat Belts (i.e., lap belts) and Combination Pelvic/Upper Torso Restraint Systems. Seat belts shall be adequate for the intended service and in good repair. Belts previously approved by the Division and installed prior to January 1, 1971, are acceptable provided they remain serviceable. Belts installed on or after January 1, 1971, shall be labeled as meeting the requirements of the Society of Automotive Engineers (SAE) standard in effect at the time the belt was manufactured. Where installed, combination pelvic/upper torso (Type 2) restraint systems shall be labeled as meeting the requirements of SAE J2292 AUG97, Combination Pelvic/Upper Torso (Type 2) Operator Restraint Systems For Off-Road Work Machines.

Note: For the purpose of subsection (g), the term "upper torso restraint" means a portion of a seat belt assembly intended to restrain movement of the chest and shoulder regions.

(1) Adjustment. The seat belts shall be capable of snug adjustment by the employee by a means easily within the employee's reach or shall be provided with an automatic locking or emergency locking retractor.

(2) Marking. Each seat belt and combination pelvic/upper torso restraint system shall be permanently and legibly marked or labeled with year of manufacture, model or style number and name or trademark of manufacturer or distributor, or of the importer if manufactured outside of the United States.

(3) Stiffness. To minimize "roping," the seat belt webbing shall be woven and/or treated to produce a stiffness in the transverse direction equal to or greater than that obtained with a weave

of double plain with one up, one down binder,without stuffers. This stiffness shall be effective for the usable life of the webbing. The webbing shall be flexible in the longitudinal direction to permit adjustment to -40°F.

(4) Material. The seat belt webbing material shall have a resistance to acids, alkalis, mildew, aging, moisture and sunlight equal to or better than that of untreated polyester fiber. The webbing shall not be less than three (3) inches in width; its ends shall be protected or treated to prevent unravelling and the breaking strength shall be at least 6,000 pounds.

Note: For seat belt requirements for agricultural and industrial tractors, see Section 3653, General Industry Safety Orders.

(5) Release. The seat belt buckle shall be designed so that it can be easily released with a single motion. It shall also be capable of being released with either available mittened hand.

(6) Closure. The seat belt buckle shall be designed so that it can be easily closed with mittened hands.

(7) Location. When a two-piece belt is used, the adjustment means shall be on each half of the belt to allow for the centering of the buckle on the operator.

(8) Operation. Each adjustment shall be capable of being made with the use of one mittened hand.

(9) Tests. A typical complete seat belt assembly, including webbing, straps, buckles, adjustment and attachment hardware, and retractors, shall be capable of passing the following destructive tests:

(A) The assembly loop shall withstand, without failure, a force of not less than 5,000 pounds and each structural component of the assembly a force of not less than 2,500 pounds.

(B) The length of the assembly loop between anchorages shall not increase more than 14 inches and each half of the assembly loop shall not increase more than 7 inches when subjected to a force of 5,000 pounds.

(C) Any webbing cut by the hardware during testing shall have a breaking strength at the cut of not less than 4,200 pounds.

(h) Wheel-type Agricultural or Industrial Tractors.

(1) ROPS and seat belts shall be installed and used on all wheel-type agricultural or industrial tractors used in construction in accordance with the installation schedule in Section 1596(a)(1).

(2) The ROPS specified above shall be approved for their intended use as defined in Section 1505.

(3) Protective enclosures, if used, shall be approved for their intended use as defined in Section 1505.

(4) ROPS approvals granted for wheel-type agricultural or industrial tractors will remain effective for the specified models of equipment for which they were granted, unless revoked for cause. These ROPS shall bear a label with their California State Approval Number.

(i) Existing ROPS Approvals. ROPS and canopies installed prior to July 24, 1976 and having a label with a California approval number on the specific model of construction equipment for which the approval was granted shall be deemed to be in compliance with the provisions of this section relating to ROPS.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code

HISTORY

1. Amendment of subsections (a) and (d) filed 5-25-76 as an emergency; effective upon filing (Register 76, No. 22). For prior history, see Register 76, No. 6.

2. Repealer and new section filed 7-21-76; effective thirtieth day thereafter (Register 76, No. 30).

3. Amendment of subsections (b) and (d) and new subsection (i) filed 3-28-78; effective thirtieth day thereafter (Register 78, No. 13).

4. Amendment of subsections (a)(1) and (a)(2)(B) filed 5-6-81; effective thirtieth day thereafter (Register 81, No. 19).

5. Amendment filed 2-7-86; effective thirtieth day thereafter (Register 86, No. 6).

6. Amendment of subsections (g)-(g)(2) filed 3-4-98; operative 4-3-98 (Register 98, No. 10).

7. Amendment of subsections (b), (f)(4), (h)(2) and (h)(3) filed 5-17-99; operative 6-16-99 (Register 99, No. 21).

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1539. Permits.

§1539. Permits.

• Note • History

For regulations relating to Permits for excavations and trenches, refer to the California Code of Regulations Title 8, Chapter 3.2, Article 2, Section 341 of the California Occupational Safety and Health Regulations (Cal/OSHA).

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New section filed 6-21-72; effective thirtieth day thereafter (Register 72, No. 26).
2. Repealer and new section filed 8-1-74 as an emergency; effective upon filing (Register 74, No. 31).
3. Certificate of Compliance filed 11-22-74 (Register 74, No. 48).
4. Certificate of Compliance refiled 11-27-74 (Register 74, No. 48).
5. Repealer and new section filed 11-29-74; effective thirtieth day thereafter (Register 74, No. 48).
6. Amendment of article heading and section filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1540. Excavations.

• Note • History

(a) Scope and application. This article applies to all open excavations made in the earth's surface. Excavations are defined to include trenches.

(b) Definitions applicable to this article.

Accepted engineering practices means those requirements which are compatible with standards of practice required by a registered professional engineer.

Aluminum hydraulic shoring. A pre-engineered shoring system comprised of aluminum hydraulic cylinders (crossbraces) used in conjunction with vertical rails (uprights) or horizontal rails (walers). Such system is designed specifically to support the sidewalls of an excavation and prevent cave-ins.

Bell-bottom pier hole. A type of shaft or footing excavation, the bottom of which is made larger than the cross section above to form a belled shape.

Benching (Benching system). A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels.

Cave-in. The separation of a mass of soil or rock material from the side of an excavation, or the

loss of soil from under a trench shield or support system, and its sudden movement into the excavation, either by falling or sliding, in sufficient quantity so that it could entrap, bury, or otherwise injure and immobilize a peron.

Crossbraces. The horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either uprights or wales.

Excavation. Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

Faces or sides. The vertical or inclined earth surfaces formed as a result of excavation work.

Failure. The breakage, displacement, or permanent deformation of a structural member or connection so as to reduce its structural integrity and its supportive capabilities.

Hazardous atmosphere. An atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.

Kickout. The accidental release or failure of a cross brace.

Protective system. A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, sloping and benching systems, shield systems, and other systems that provide the necessary protection.

Ramp. An inclined walking or working surface that is used to gain access to one point from another, and is constructed from earth or from structural materials such as steel or wood.

Registered professional engineer. A person who is registered as a professional engineer in the state where the work is to be performed. However, a professional engineer, registered in any state is deemed to be a "registered professional engineer" within the meaning of this standard when approving designs for "manufactured protective systems" or "tabulated data" to be used in interstate commerce.

Sheeting. The members of a shoring system that retain the earth in position and in turn are supported by other members of the shoring system.

Shield (Shield system). A structure that is able to withstand the forces imposed on it by a cave-in and thereby protect employees within the structure. Shields can be permanent structures or can be designed to be portable and moved along as work progresses. Additionally, shields can be either premanufactured or job-built in accordance with Section 1541.1(c)(3) or (c)(4). Shields used in trenches are usually referred to as "trench boxes" or "trench shields."

Shoring (Shoring system). A structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

Sides. See "Faces."

Sloping (Sloping system). A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away form the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with differences in such factors as the soil type, environmental conditions of exposure, and application of surcharge loads.

Stable rock. Natural solid mineral material that can be excavated with vertical sides and will remain intact while exposed. Unstable rock is considered to be stable when the rock material on the side or sides of the excavation is secured against caving-in or movement by rock bolts or by another protective system that has been designed by a registered professional engineer.

Structural ramp. A ramp built of steel or wood, usually used for vehicle access. Ramps made of soil or rock are not considered structural ramps.

Support system. A structure such as underpinning, bracing, or shoring, which provides support to an adjacent structure, underground installation, or the sides of an excavation.

Tabulated data. Tables and charts approved by a registered professional engineer and used to design and construct a protective system.

Trench (Trench excavation). A narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet or less, (measured at the bottom of the excavation), the excavation is also considered to be a trench.

Trench box. See "Shield."

Trench shield. See "Shield."

Uprights. The vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not contact each other. Uprights placed so that individual members are closely spaced, in contact with or interconnected to each other, are often called "sheeting."

Wales. Horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Repealer and new section filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35). For prior history, see Register 75, No. 21.
2. Amendment of subsection (b)(3) filed 11-18-83; effective thirtieth day thereafter (Register 83, No. 47).
3. Amendment of subsections (b)(2) and (b)(3) filed 5-1-87; operative 5-31-87 (Register 87, No. 19).
4. Repealer and new section filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1540. Excavations.

§1540. Excavations.

• Note • History

(a) Scope and application. This article applies to all open excavations made in the earth's surface. Excavations are defined to include trenches.

(b) Definitions applicable to this article.

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Failure. The breakage, displacement, or permanent deformation of a structural member or connection so as to reduce its structural integrity and its supportive capabilities.

Hazardous atmosphere. An atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic, or otherwise harmful, may cause death, illness, or injury.

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another, and is constructed from earth or from structural materials such as steel or wood.

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Wales. Horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

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3. Amendment of subsections (b)(2) and (b)(3) filed 5-1-87; operative 5-31-87 (Register 87, No. 19).
4. Repealer and new section filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1541. General Requirements.

• Note • History

(a) Surface encumbrances. All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.

(b) Underground installations.

(1) The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.

(2) All Regional Notification Centers as defined by Government Code Section 4216(h) in the area involved and all known owners of underground facilities in the area who are not members of a Notification Center shall be advised of the proposed work at least 2 working days prior to the start of any digging or excavation work. EXCEPTION: Emergency repair work to underground facilities.

(3) When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.

(4) While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.

(c) Access and egress.

(1) Structural ramps.

(A) Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a competent person qualified in structural design, and shall be constructed in accordance with the design.

(B) Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent displacement.

(C) Structural members used for ramps and runways shall be of uniform thickness.

(D) Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.

(E) Structural ramps used in lieu of steps shall be provided with cleats or other surface treatments to the top surface to prevent slipping.

(2) Means of egress from trench excavations.

A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.

(d) Exposure to vehicular traffic. Employees exposed to public vehicular traffic shall be provided with, and shall wear, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.

(e) Exposure to falling loads. No employee shall be permitted underneath loads handled by

lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped, in accordance with Section 1591(e), to provide adequate protection for the operator during loading and unloading operations.

(f) Warning system for mobile equipment. When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

(g) Hazardous atmospheres.

(1) Testing and controls. In addition to the requirements set forth in the Construction Safety Orders and the General Industry Safety Orders to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions, the following requirements shall apply:

(A) Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4 feet in depth.

(B) Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation.

(C) Adequate precaution shall be taken such as providing ventilation, to prevent employee exposure to an atmosphere containing a concentration of a flammable gas in excess of 20 percent of the lower flammable limit of the gas.

(D) When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing shall be conducted as often as necessary to ensure that the atmosphere remains safe.

(2) Emergency rescue equipment.

(A) Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

(B) Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials, and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

(h) Protection from hazards associated with water accumulation.

(1) Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.

(2) If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a competent person to ensure proper operation.

(3) If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person and compliance with Sections 1541 (h)(1) and (h)(2).

(i) Stability of adjacent structures.

(1) Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.

(2) Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted except when:

(A) A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure; or

(B) The excavation is in stable rock; or

(C) A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

(3) Sidewalks, pavements and appurtenant structure shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.

(j) Protection of employees from loose rock or soil.

(1) Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.

(2) Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

(k) Inspection.

(1) Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rain storm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

(2) Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

(*l*) Fall protection.

(1) Where employees or equipment are required or permitted to cross over excavations over 6 feet and wider than 30 inches, walkways or bridges with standard guardrails shall be provided.

(2) Adequate barrier physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc., shall be barricaded or covered. Upon completion of exploration and other similar operations, temporary wells, pits, shafts, etc., shall be backfilled.

NOTE

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1541. General Requirements.

§1541. General Requirements.

• Note • History

(a) Surface encumbrances. All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.

(b) Underground installations.

(1) The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.

(2) All Regional Notification Centers as defined by Government Code Section 4216(h) in the area involved and all known owners of underground facilities in the area who are not members of a Notification Center shall be advised of the proposed work at least 2 working days prior to the start of any digging or excavation work. EXCEPTION: Emergency repair work to underground facilities.

(3) When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means.

(4) While the excavation is open, underground installations shall be protected, supported, or removed as necessary to safeguard employees.

(c) Access and egress.

(1) Structural ramps.

(A) Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a competent person qualified in structural design, and shall be constructed in accordance with the design.

(B) Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent displacement.

(C) Structural members used for ramps and runways shall be of uniform thickness.

(D) Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.

(E) Structural ramps used in lieu of steps shall be provided with cleats or other surface treatments to the top surface to prevent slipping.

(2) Means of egress from trench excavations.

A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.

(d) Exposure to vehicular traffic. Employees exposed to public vehicular traffic shall be provided with, and shall wear, warning vests or other suitable garments marked with or made of reflectorized or high-visibility material.

(e) Exposure to falling loads. No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped, in accordance with Section 1591(e), to provide adequate protection for the operator during loading and unloading operations.

(f) Warning system for mobile equipment. When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

(g) Hazardous atmospheres.

(1) Testing and controls. In addition to the requirements set forth in the Construction Safety Orders and the General Industry Safety Orders to prevent exposure to harmful levels of atmospheric contaminants and to assure acceptable atmospheric conditions, the following requirements shall apply:

(A) Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4 feet in depth.

(B) Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation.

(C) Adequate precaution shall be taken such as providing ventilation, to prevent employee exposure to an atmosphere containing a concentration of a flammable gas in excess of 20 percent of the lower flammable limit of the gas.

(D) When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing shall be conducted as often as necessary to ensure that the atmosphere remains safe.

(2) Emergency rescue equipment.

(A) Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

(B) Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials, and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

(h) Protection from hazards associated with water accumulation.

(1) Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.

(2) If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a competent person to ensure

proper operation.

(3) If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person and compliance with Sections 1541 (h)(1) and (h)(2).

(i) Stability of adjacent structures.

(1) Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.

(2) Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted except when:

(A) A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure; or

(B) The excavation is in stable rock; or

(C) A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

(3) Sidewalks, pavements and appurtenant structure shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.

(j) Protection of employees from loose rock or soil.

(1) Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.

(2) Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

(k) Inspection.

(1) Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rain storm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

(2) Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

(*l*) Fall protection.

(1) Where employees or equipment are required or permitted to cross over excavations over 6 feet and wider than 30 inches, walkways or bridges with standard guardrails shall be provided.

(2) Adequate barrier physical protection shall be provided at all remotely located excavations. All wells, pits, shafts, etc., shall be barricaded or covered. Upon completion of exploration and

other similar operations, temporary wells, pits, shafts, etc., shall be backfilled.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; and Section 4216, Government Code.

HISTORY

1. Repealer and new section filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35). For prior history, see Registers 75, No. 21; 74, No. 35; and 74, No. 17.

2. Repealer and new section filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

3. Change without regulatory effect amending subsection (h)(3) filed 10-22-92 pursuant to section 100, title 1, California Code of Regulations (Register 92, No. 43).

4. Amendment of subsections (c)(2) and (*l*)(1) filed 1-24-94; operative 2-23-94 (Register 94, No. 4).

5. Change without regulatory effect amending subsection (b)(2) filed 2-10-94 pursuant to title 1, section 100, California Code of Regulations (Register 94, No. 6).

6. Editorial correction restoring amendment to subsection (*l*)(7) (Register 94, No. 16).

§1541.1. Requirements for Protective Systems.

• Note • History

(a) Protection of employees in excavations.

(1) Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with Section 1541.1(b) or (c) except when:

(A) Excavations are made entirely in stable rock; or

(B) Excavations are less than 5 feet in depth and examination of the ground by a competent person provides no indication of a potential cave-in.

(2) Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

(b) Design of sloping and benching systems. The slopes and configurations of sloping and benching systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of Section 1541.1(b)(1), Section 1541.1(b)(2), Section 1541.1(b)(3), or Section 1541.1(b)(4), as follows:

(1) Option (1) --Allowable configurations and slopes.

(A) Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below.

(B) Slopes specified in Section 1541.1(b)(1)(A) shall be excavated to form configurations that are in accordance with the slopes shown for Type C soil in Appendix B to this article.

(2) Option (2) --Determination of slopes and configurations using Appendices A and B. Maximum allowable slopes, and allowable configurations for sloping and benching systems, shall be determined in accordance with the conditions and requirements set forth in Appendices A and B to this article.

(3) Option (3) --Designs using other tabulated data.

(A) Designs of sloping or benching systems shall be selected from and be in accordance with tabulated data, such as tables and charts.

(B) The tabulated data shall be in written form and shall include all of the following:

1. Identification of the parameters that affect the selection of a sloping or benching system drawn from such data;

2. Identification of the limits of use of the data, to include the magnitude and configuration of slopes determined to be safe;

3. Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.

4. At least one copy of the tabulated data which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a copy of the data shall be made available to the Division upon request.

(4) Option (4) --Design by a registered professional engineer.

(A) Sloping and benching systems not utilizing Option (1) or Option (2) or Option (3) under Section 1541.1(b) shall be stamped and signed by a registered professional engineer.

(B) Designs shall be in written form and shall include at least the following:

1. The magnitude of the slopes that were determined to be safe for the particular project;

2. The configurations that were determined to be safe for the particular project;

3. The identity of the registered professional engineer approving the design.

(C) At least one copy of the design shall be maintained at the jobsite while the slope is being constructed. After that time the design need not be at the jobsite, but a copy shall be made available to the Division upon request.

(c) Design of support systems, shield systems, and other protective systems. Designs of support systems, shield systems, and other protective systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of Section 1541.1(c)(1); or, in the alternative, Section 1541.1(c)(2); or, in the alternative, Section 1541.1(c)(3); or, in the alternative, Section 1541.1(c)(4) as follows:

(1) Option (1) --Designs using Appendices A, C and D. Designs for timber shoring in trenches shall be determined in accordance with the conditions and requirements set forth in Appendices A and C to this article. Designs for aluminum hydraulic shoring shall be in accordance with Section 1541.1(c)(2), but if manufacturer's tabulated data cannot be utilized, designs shall be in accordance with Appendix D.

(2) Option (2) --Designs Using Manufacturer's Tabulated Data.

(A) Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data shall be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

(B) Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall only be allowed after the manufacturer issues specific written approval.

(C) Manufacturer's specifications, recommendations, and limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations shall be in written form at the jobsite during construction of the protective system. After that time this data may be stored off the jobsite, but a copy shall be made available to the Division upon request.

(3) Option (3) --Designs using other tabulated data.

(A) Designs of support systems, shield systems, or other protective systems shall be selected from and be in accordance with tabulated data, such as tables and charts.

(B) The tabulated data shall be in written form and include all of the following:

1. Identification of the parameters that affect the selection of a protective system drawn from such data;

2. Identification of the limits of use of the data;

3. Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.

(C) At least one copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a copy of the data shall be made available to the Division upon request.

(4) Option (4) --Design by a registered professional engineer.

(A) Support systems, shield systems, and other protective systems not utilizing Option 1, Option 2, or Option 3, above, shall be approved by a registered professional engineer.

(B) Designs shall be in written form and shall include the following:

1. A plan indicating the sizes, types, and configurations of the materials to be used in the protective system; and

2. The identity of the registered professional engineer approving the design.

(C) At least one copy of the design shall be maintained at the jobsite during construction of the protective system. After that time, the design may be stored off the jobsite, but a copy of the design shall be made available to the Division upon request.

(d) Materials and equipment.

(1) Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.

(2) Manufactured materials and equipment used for protective systems shall be used and maintained in a manner that is consistent with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.

(3) When material or equipment that is used for protective systems is damaged, a competent person shall examine the material or equipment and evaluate its suitability for continued use. If the competent person cannot assure the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service, and shall be evaluated and approved by a registered professional engineer before being returned to service.

(e) Installation and removal of supports.

(1) General.

(A) Members of support systems shall be securely connected together to prevent sliding, falling, kickouts, or other predictable failure.

(B) Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.

(C) Individual members of support systems shall not be subjected to loads exceeding those which those members were designed to withstand.

(D) Before temporary removal of individual members begins, additional precautions shall be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.

(E) Removal shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.

(F) Backfilling shall progress together with the removal of support systems from excavations.

(2) Additional requirements for support systems for trench excavations.

(A) Excavation of material to a level no greater than 2 feet below the bottom of the members of a

support system shall be permitted, but only if the system is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the support system.

(B) Installation of a support system shall be closely coordinated with the excavation of trenches.

(f) Sloping and benching systems. Employees shall not be permitted to work on the faces of sloped or benched excavations at levels above other employees except when employees at the lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.

(g) Shield systems.

(1) General.

(A) Shield systems shall not be subjected to loads exceeding those which the system was designed to withstand.

(B) Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.

(C) Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.

(D) Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically.

(2) Additional requirements for shield systems used in trench excavations. The sides of the shield shall extend a minimum of 18 inches above the vertical walls of compound excavations as shown in Appendix B, figures B-1, B-1.2 and B-1.3. On vertically cut trenches, the shield shall extend to at least the catch point of the trench. Excavations of earth material to a level not greater than 2 feet below the bottom of a shield shall be permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield.

(h) Uprights shall extend to the top of the trench with the lower end of the upright not more than 2 feet from the bottom of the trench.

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1541.1. Requirements for Protective Systems.

§1541.1. Requirements for Protective Systems.

• Note • History

(a) Protection of employees in excavations.

(1) Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with Section 1541.1(b) or (c) except when:

(A) Excavations are made entirely in stable rock; or

(B) Excavations are less than 5 feet in depth and examination of the ground by a competent person provides no indication of a potential cave-in.

(2) Protective systems shall have the capacity to resist without failure all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

(b) Design of sloping and benching systems. The slopes and configurations of sloping and benching systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of Section 1541.1(b)(1), Section 1541.1(b)(2), Section 1541.1(b)(3), or Section 1541.1(b)(4), as follows:

(1) Option (1) --Allowable configurations and slopes.

(A) Excavations shall be sloped at an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal), unless the employer uses one of the other options listed below.

(B) Slopes specified in Section 1541.1(b)(1)(A) shall be excavated to form configurations that are in accordance with the slopes shown for Type C soil in Appendix B to this article.

(2) Option (2) --Determination of slopes and configurations using Appendices A and B. Maximum allowable slopes, and allowable configurations for sloping and benching systems, shall be determined in accordance with the conditions and requirements set forth in Appendices A and B to this article.

(3) Option (3) --Designs using other tabulated data.

(A) Designs of sloping or benching systems shall be selected from and be in accordance with tabulated data, such as tables and charts.

(B) The tabulated data shall be in written form and shall include all of the following:

1. Identification of the parameters that affect the selection of a sloping or benching system drawn from such data;

2. Identification of the limits of use of the data, to include the magnitude and configuration of slopes determined to be safe;

3. Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.

4. At least one copy of the tabulated data which identifies the registered professional engineer

who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a copy of the data shall be made available to the Division upon request.

(4) Option (4) --Design by a registered professional engineer.

(A) Sloping and benching systems not utilizing Option (1) or Option (2) or Option (3) under Section 1541.1(b) shall be stamped and signed by a registered professional engineer.

(B) Designs shall be in written form and shall include at least the following:

1. The magnitude of the slopes that were determined to be safe for the particular project;

2. The configurations that were determined to be safe for the particular project;

3. The identity of the registered professional engineer approving the design.

(C) At least one copy of the design shall be maintained at the jobsite while the slope is being constructed. After that time the design need not be at the jobsite, but a copy shall be made available to the Division upon request.

(c) Design of support systems, shield systems, and other protective systems. Designs of support systems, shield systems, and other protective systems shall be selected and constructed by the employer or his designee and shall be in accordance with the requirements of Section 1541.1(c)(1); or, in the alternative, Section 1541.1(c)(2); or, in the alternative, Section 1541.1(c)(3); or, in the alternative, Section 1541.1(c)(4) as follows:

(1) Option (1) --Designs using Appendices A, C and D. Designs for timber shoring in trenches shall be determined in accordance with the conditions and requirements set forth in Appendices A and C to this article. Designs for aluminum hydraulic shoring shall be in accordance with Section 1541.1(c)(2), but if manufacturer's tabulated data cannot be utilized, designs shall be in accordance with Appendix D.

(2) Option (2) --Designs Using Manufacturer's Tabulated Data.

(A) Design of support systems, shield systems, or other protective systems that are drawn from manufacturer's tabulated data shall be in accordance with all specifications, recommendations, and limitations issued or made by the manufacturer.

(B) Deviation from the specifications, recommendations, and limitations issued or made by the manufacturer shall only be allowed after the manufacturer issues specific written approval.

(C) Manufacturer's specifications, recommendations, and limitations, and manufacturer's approval to deviate from the specifications, recommendations, and limitations shall be in written form at the jobsite during construction of the protective system. After that time this data may be stored off the jobsite, but a copy shall be made available to the Division upon request.

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2. Identification of the limits of use of the data;

3. Explanatory information as may be necessary to aid the user in making a correct selection of a protective system from the data.

(C) At least one copy of the tabulated data, which identifies the registered professional engineer who approved the data, shall be maintained at the jobsite during construction of the protective system. After that time the data may be stored off the jobsite, but a copy of the data shall be made available to the Division upon request.

(4) Option (4) --Design by a registered professional engineer.

(A) Support systems, shield systems, and other protective systems not utilizing Option 1, Option 2, or Option 3, above, shall be approved by a registered professional engineer.

(B) Designs shall be in written form and shall include the following:

1. A plan indicating the sizes, types, and configurations of the materials to be used in the protective system; and

2. The identity of the registered professional engineer approving the design.

(C) At least one copy of the design shall be maintained at the jobsite during construction of the protective system. After that time, the design may be stored off the jobsite, but a copy of the design shall be made available to the Division upon request.

(d) Materials and equipment.

(1) Materials and equipment used for protective systems shall be free from damage or defects that might impair their proper function.

(2) Manufactured materials and equipment used for protective systems shall be used and maintained in a manner that is consistent with the recommendations of the manufacturer, and in a manner that will prevent employee exposure to hazards.

(3) When material or equipment that is used for protective systems is damaged, a competent person shall examine the material or equipment and evaluate its suitability for continued use. If the competent person cannot assure the material or equipment is able to support the intended loads or is otherwise suitable for safe use, then such material or equipment shall be removed from service, and shall be evaluated and approved by a registered professional engineer before being returned to service.

(e) Installation and removal of supports.

(1) General.

(A) Members of support systems shall be securely connected together to prevent sliding, falling, kickouts, or other predictable failure.

(B) Support systems shall be installed and removed in a manner that protects employees from cave-ins, structural collapses, or from being struck by members of the support system.

(C) Individual members of support systems shall not be subjected to loads exceeding those which those members were designed to withstand.

(D) Before temporary removal of individual members begins, additional precautions shall be taken to ensure the safety of employees, such as installing other structural members to carry the loads imposed on the support system.

(E) Removal shall begin at, and progress from, the bottom of the excavation. Members shall be released slowly so as to note any indication of possible failure of the remaining members of the structure or possible cave-in of the sides of the excavation.

(F) Backfilling shall progress together with the removal of support systems from excavations.

(2) Additional requirements for support systems for trench excavations.

(A) Excavation of material to a level no greater than 2 feet below the bottom of the members of a support system shall be permitted, but only if the system is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the support system.

(B) Installation of a support system shall be closely coordinated with the excavation of trenches.

(f) Sloping and benching systems. Employees shall not be permitted to work on the faces of sloped or benched excavations at levels above other employees except when employees at the lower levels are adequately protected from the hazard of falling, rolling, or sliding material or

equipment.

(g) Shield systems.

(1) General.

(A) Shield systems shall not be subjected to loads exceeding those which the system was designed to withstand.

(B) Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield in the event of the application of sudden lateral loads.

(C) Employees shall be protected from the hazard of cave-ins when entering or exiting the areas protected by shields.

(D) Employees shall not be allowed in shields when shields are being installed, removed, or moved vertically.

(2) Additional requirements for shield systems used in trench excavations. The sides of the shield shall extend a minimum of 18 inches above the vertical walls of compound excavations as shown in Appendix B, figures B-1, B-1.2 and B-1.3. On vertically cut trenches, the shield shall extend to at least the catch point of the trench. Excavations of earth material to a level not greater than 2 feet below the bottom of a shield shall be permitted, but only if the shield is designed to resist the forces calculated for the full depth of the trench, and there are no indications while the trench is open of a possible loss of soil from behind or below the bottom of the shield.

(h) Uprights shall extend to the top of the trench with the lower end of the upright not more than 2 feet from the bottom of the trench.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. New section including Appendices A-F filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

2. Change without regulatory effect amending Appendix B, subsection (c)(3)(C) filed 6-29-92; operative 7-29-92 pursuant to section 100, title 1, California Code of Regulations (Register 92, No. 27).

3. Change without regulatory effect amending Appendix A, subsection (b), Soil classification system filed 10-22-92 pursuant to section 100, title 1, California Code of Regulations (Register 92, No. 43).

4. Change without regulatory effect amending subsection (b)(1)(B) filed 12-18-95 pursuant to section 100, title 1, California Code of Regulations (Register 95, No. 51).

5. Editorial correction restoring subsection (g)(1)(A) (Register 97, No. 6).

6. Amendment of subsections (b) and (b)(4)(A), new subsection (g)(1)(A), and amendment of subsection (g)(2) filed 3-5-97; operative 4-4-97 (Register 97, No. 10).

7. New subsection (h) and amendment of Appendix D, subsection (g)(7) filed 4-9-2001; operative 5-9-2001 (Register 2001, No. 15).

Appendix A

Soil Classification

(a) Scope and application.

(1) Scope. This appendix describes a method of classifying soil and rock deposits based on site and environmental conditions, and on the structure and composition of the earth deposits. The appendix contains definitions, sets forth requirements, and describes acceptable visual and manual tests for use in classifying soils.

(2) Application. This appendix applies when a sloping or benching system is designed in

accordance with the requirements set forth in Section 1541.1(b)(2) as a method of protection for employees from cave-ins. This appendix also applies when timber shoring for excavations is designed as a method of protection from cave-ins in accordance with Appendix C to this article, and when aluminum hydraulic shoring is designed in accordance with Appendix D. This appendix also applies if other protective systems are designed and selected for use from data prepared in accordance with the requirements set forth in Section 1541.1(c), and the use of the data is predicated on the use of the soil classification system set forth in this appendix.

(b) Definitions.

Cemented soil. A soil in which the particles are held together by a chemical agent, such a calcium carbonate, such that a hand-size sample cannot be crushed into powder or individual soil particles by finger pressure.

Cohesive soil. Clay (fine grained soil), or soil with a high clay content, which has cohesive strength. Cohesive soil does not crumble, can be excavated with vertical side slopes, and is plastic when moist. Cohesive soil is hard to break up when dry, and exhibits significant cohesion when submerged. Cohesive soils include clayey silt, sandy clay, silty clay, clay and organic clay.

Dry soil. Soil that does not exhibit visible signs of moisture content.

Fissured. A soil material that has a tendency to break along definite planes of fracture with little resistance, or a material that exhibits open cracks, such as tension cracks, in an exposed surface.

Granular soil. Gravel, sand, or silt (coarse grained soil) with little or no clay content. Granular soil has no cohesive strength. Some moist granular soils exhibit apparent cohesion. Granular soil cannot be molded when moist and crumbles easily when dry.

Layered system. Two or more distinctly different soil or rock types arranged in layers. Micaceous seams or weakened planes in rock or shale are considered layered.

Moist soil. A condition in which a soil looks and feels damp. Moist cohesive soil can easily be shaped into a ball and rolled into small diameter threads before crumbling. Moist granular soil that contains some cohesive material will exhibit signs of cohesion between particles.

Plastic. A property of a soil which allows the soil to be deformed or molded without cracking, or appreciable volume change.

Saturated soil. A soil in which the voids are filled with water. Saturation does not require flow. Saturation, or near saturation, is necessary for the proper use of instruments such as a pocket penetrometer or sheer vane.

Soil classification system. A method of categorizing soil and rock deposits in a hierarchy of Stable Rock, Type A, Type B, and Type C, in decreasing order of stability. The categories are determined based on an analysis of the properties and performance characteristics of the deposits and the environmental conditions of exposure.

Stable rock. Natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.

Submerged soil. Soil which is underwater or is free seeping.

Type A soil. Cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) or greater. Examples of cohesive soils are: clay, silty clay, sandy clay, clay loam and, in some cases, silty clay loam and sandy clay loam. Cemented soils such as caliche and hardpan are also considered Type A. However, no soil is Type A if:

(1) The soil is fissured; or

(2) The soil is subject to vibration from heavy traffic, pile driving, or similar effects; or

(3) The soil has been previously disturbed; or

(4) The soil is part of a sloped, layered system where the layers dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater; or

(5) The material is subject to other factors that would require it to be classified as a less stable material.

Type B soil:

(1) Cohesive soil with an unconfined compressive strength greater than 0.5 tsf but less than 1.5 tsf; or

(2) Granular cohesionless soils including: angular gravel (similar to crushed rock), silt, silt loam, sandy loam and, in some cases, silty clay loam and sandy clay loam.

(3) Previously disturbed soils except those which would otherwise be classed as Type C soil.

(4) Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration; or

(5) Dry rock that is not stable; or

(6) Material that is part of a sloped, layered system where the layers dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B.

Type C soil:

(1) Cohesive soil with an unconfined compressive strength of 0.5 tsf or less; or

(2) Granular soils including gravel, sand, and loamy sand; or

(3) Submerged soil or soil from which water is freely seeping; or

(4) Submerged rock that is not stable, or

(5) Material in a sloped, layered system where the layers dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper.

Unconfined compressive strength. The load per unit area at which a soil will fail in compression. It can be determined by laboratory testing, or estimated in the field using a pocket penetrometer, by thumb penetration tests, and other methods.

Wet soil. Soil that contains significantly more moisture than moist soil, but in such a range of values that cohesive material will slump or begin to flow when vibrated. Granular material that would exhibit cohesive properties when moist will lose those cohesive properties when wet.

(c) Requirements.

(1) Classification of soil and rock deposits. Each soil and rock deposit shall be classified by a competent person as Stable Rock, Type A, Type B, or Type C in accordance with the definitions set forth in paragraph (b) of this appendix.

(2) Basis of classification. The classification of the deposits shall be made based on the results of at least one visual and at least one manual analysis. Such analyses shall be conducted by a competent person using tests described in paragraph (d) below, or in other approved methods of soil classification and testing such as those adopted by the American Society for Testing Materials, or the U.S. Department of Agriculture textural classification system.

(3) Visual and manual analyses. The visual and manual analyses, such as those noted as being acceptable in paragraph (d) of this appendix, shall be designed and conducted to provide sufficient quantitative and qualitative information as may be necessary to identify properly the properties, factors, and conditions affecting the classification of the deposits.

(4) Layered systems. In a layered system, the system shall be classified in accordance with its weakest layer. However, each layer may be classified individually where a more stable layer lies under a less stable layer.

(5) Reclassification. If, after classifying a deposit, the properties, factors, or conditions affecting its classification change in any way, the changes shall be evaluated by a competent person. The deposit shall be reclassified as necessary to reflect the changed circumstances.

(d) Acceptable visual and manual tests.

(1) Visual tests. Visual analysis is conducted to determine qualitative information regarding the excavation site in general, the soil adjacent to the excavation, the soil forming the sides of the open excavation, and the soil taken as samples from excavated material.

(A) Observe samples of soil that are excavated and soil in the sides of the excavation. Estimate the range of particle sizes and the relative amounts of the particle sizes. Soil that is primarily composed of fine-grained material is cohesive material. Soil composed primarily of coarse-grained sand or gravel is granular material.

(B) Observe soil as it is excavated. Soil that remains in clumps when excavated is cohesive. Soil that breads up easily and does not stay in clumps is granular.

(C) Observe the side of the opened excavation and the surface area adjacent to the excavation. Crack-like openings such as tension cracks could indicate fissured material. If chunks of soil spall off a vertical side, the soil could be fissured. Small spalls are evidence of moving ground and are indications of potentially hazardous situations.

(D) Observe the area adjacent to the excavation and the excavation itself for evidence of existing utility and other underground structures, and to identify previously disturbed soil.

(E) Observe the opened side of the excavation to identify layered systems. Examine layered systems to identify if the layers slope toward the excavation. Estimate the degree of slope of the layers.

(F) Observe the area adjacent to the excavation and the sides of the opened excavation for evidence of surface water, water seeping from the sides of the excavation, or the location of the level of the water table.

(G) Observe the area adjacent to the excavation and the area within the excavation for sources of vibration that may affect the stability of the excavation face.

(2) Manual tests. Manual analysis of soil samples in conducted to determine quantitative as well as qualitative properties of soil and to provide more information in order to classify soil properly.

(A) Plasticity. Mold a moist or wet sample of soil into a ball and attempt to roll it into threads as thin as 1/8-inch in diameter. Cohesive material can be successfully rolled into threads without crumbling. For example, if at least a two inch length of 1/8-inch thread can be held on one end without tearing, the soil is cohesive.

(B) Dry strength. If the soil is dry and crumbles on its own or with moderate pressure into individual grains or fine powder, it is granular (any combination of gravel, sand, or silt). If the soil is dry and falls into clumps which break up into smaller clumps, but the smaller clumps can only be broken up with difficulty, it may be clay in any combination with gravel, sand or silt. If the dry soil breads into clumps which do not break up into small clumps and which can only be broken with difficulty, and there is no visual indication the soil is fissured, the soil may be considered unfissured.

(C) Thumb penetration. The thumb penetration test can be used to estimate the unconfined compressive strength of cohesive soils. Type A soils with an unconfined compressive strength of 1.5 tsf can be readily indented by the thumb; however, they can be penetrated by the thumb only with very great effort. Type C soils with an unconfined compressive strength of 0.5 tsf can be easily penetrated several inches by the thumb, and can be molded by light finger pressure. This test should be conducted on an undisturbed soil sample, such as a large clump of spoil, as soon as practicable after excavation to keep to a minimum the effects of exposure to drying influences (rain, flooding), the classification of the soil must be changed accordingly.

(D) Other strength tests. Estimates of unconfined compressive strength of soils can also be obtained by use of a pocket penetrometer or by using a hand-operated shearvane.

(E) Drying test. The basic purpose of the drying test is to differentiate between cohesive material

with fissures, unfissured cohesive material, and granular material. The procedure for the drying test involves drying a sample of soil that is approximately one inch thick and six inches in diameter until it is thoroughly dry:

1. If the sample develops cracks as it dries, significant fissures are indicated.

2. Samples that dry without cracking are to be broken by hand. If considerable force is necessary to bread a sample, the soil has significant cohesive material content. The soil can be classified as an unfissured cohesive material and the unconfined compressive strength should be determined.

3. If a sample breaks easily by hand, it is either a fissured cohesive material or a granular material. To distinguish between the two, pulverize the dried clumps of the sample by hand or by stepping on them. If the clumps do not pulverize easily, the material is cohesive with fissures. If they pulverize easily into very small fragments, the material is granular.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1542. Shafts.

§1542. Shafts.

• Note • History

(a) General.

(1) All wells or shafts over 5 feet in depth into which employees are permitted to enter shall be retained with lagging, spiling, or casing.

EXCEPTION: Exploration shafts; see Section 1542(d).

(2) The lagging, spiling or casing shall extend at least one foot above ground level and shall be provided the full depth of the shaft or at least five feet into solid rock if possible.

(3) All wells, pits, shafts, caissons, etc. shall be barricaded or securely covered.

(4) Upon completion of exploration and similar operations, temporary wells, pits, shafts, etc., shall be backfilled.

(b) Small Shafts in Hard Compact Soil.

Two-inch (nominal) cribbing may be used in square shafts not over 4 feet square in hard compact soil. Each member shall be cut 1/2 way through the width of the member and dovetailed into position so each member will act as a shore as well as lagging. Strips shall be nailed in each corner to prevent the boards from dropping down.

(c) Shafts in Other Than Hard Compact Soil.

(1) A system of lagging supported by braces and corner posts shall be used for square or rectangular shafts. Corner posts of 4-inch by 4-inch material are normally acceptable in shafts 4 feet square, or smaller, if they are braced in each direction with horizontal 4-inch by 4-inch members at intervals not exceeding 4 feet. Braces and corner posts in larger shafts shall be correspondingly larger as determined by a civil engineer.

(2) Round shafts shall be completely lagged with 2-inch material which is supported at intervals not greater than 4 feet by means of adjustable rings of metal or timber that are designed to resist the collapsing force, or cased in a manner that provides equivalent protection.

(d) Exploration Shafts. Only a geotechnical specialist shall be permitted to enter an exploration shaft without lagging, spiling or casing for the purpose of subsurface investigations under the following conditions:

(1) Initial Inspection. The type of materials and stability characteristics of the exploration shaft shall be personally observed and recorded by the geotechnical specialist during the drilling operation. Potentially unsafe exploration shafts shall not be entered.

(2) Surface Casing. The upper portion of the exploration shaft shall be equipped with a surface ring-collar to provide casing support of the material within the upper 4 feet of the exploration shaft. The ring-collar shall extend at least 1-foot above the ground surface.

(3) Gas Tests. Prior to entry into exploration shafts, tests and/or procedures shall be instituted to

assure that the atmosphere within the shaft does not contain dangerous air contamination or oxygen deficiency. These tests and/or procedures shall be maintained while working within the shaft to assure that dangerous air contamination or oxygen deficiency will not occur. (See Section 5156 of the General Industry Safety Orders.)

(4) Unstable Local Conditions. The geotechnical specialist shall not descend below any portion of any exploration shaft where caving or groundwater seepage is noted or suspected.

(5) Ladder and Cable Descents. A ladder may be used to inspect exploration shafts 20 feet or less in depth. In deeper exploration shafts, properly maintained mechanical hoisting devices with a safety factor of at least 6 shall be provided and used. Such devices shall be under positive control of the operator being positive powered up and down with fail-safe brakes.

(6) Emergency Standby Employee. An emergency standby employee shall be positioned at the surface near the exploration shaft opening whenever a geotechnical specialist is inside the shaft.

(7) Communication. A two-way, electrically-operated communication system shall be in operation between the standby employee and the geotechnical specialist whenever boring inspections are being made in exploration shafts over 20 feet in depth or when ambient noise levels make communication difficult.

(8) Safety Equipment. The following safety equipment shall be used to protect the geotechnical specialist:

(A) An approved safety harness which will suspend a person upright and that is securely attached to the hoist cable.

(B) A 12-inch to 18-inch diameter steel coneshaped headguard/deflector that is attached to the hoist cable above the harness.

(C) A hoist cable having a minimum diameter of 5/16 inches.

(D) Approved head protection. (See Section 1515.)

(9) Electrical Devices. All electrical devices used within the exploration shaft by the geotechnical specialist shall be approved for hazardous locations.

(10) Surface Hazards. The storage and use of flammable or other dangerous materials shall be controlled at the surface to prevent them from entering the exploration shaft.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment of subsection (e) filed 5-21-75; effective thirtieth day thereafter (Register 75, No. 21).

2. Amendment filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).

3. Amendment of subsection (a) and new subsection (e) filed 11-12-82; effective thirtieth day thereafter (Register 82, No. 46).

4. Repealer of subsection (a) NOTE, adoption of subsections (a)(3) and (a)(4), repealer of subsection (d) text and relettering filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

5. Change without regulatory effect amending subsection (a)(1) filed 8-19-92; operative 8-19-92 (Register 92, No. 34).

6. Editorial correction of printing error restoring designation of subsection (d) (Register 92, No. 34).

7. Change without regulatory effect amending subsection (a)(1) Exception filed 2-22-93; operative 3-24-93 pursuant to title 1, section 100, California Code of Regulations (Register 93, No. 9).

§1543. Cofferdams.

• Note • History

(a) If overtopping of the cofferdam by high waters is possible, means shall be provided for controlled flooding of the work area.

(b) Warning signs for evacuation of employees in case of emergency shall be developed and posted.

(c) Cofferdam walkways, bridges, or ramps with at least two means of rapid exit, shall be provided with guardrails as specified in Section 1620.

(d) Cofferdams located close to navigable shipping channels shall be protected from vessels in transit, where possible.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section142.3, Labor Code.

HISTORY

1. New section filed 1-13-87; effective thirtieth day thereafter (Register 87, No. 3). For history of former section, see Registers 82, No. 35 and 70, No.48.

2. Adoption of NOTE filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1544. Earthwork and Excavating.

§1543. Cofferdams.

• Note • History

(a) If overtopping of the cofferdam by high waters is possible, means shall be provided for controlled flooding of the work area.

(b) Warning signs for evacuation of employees in case of emergency shall be developed and posted.

(c) Cofferdam walkways, bridges, or ramps with at least two means of rapid exit, shall be provided with guardrails as specified in Section 1620.

(d) Cofferdams located close to navigable shipping channels shall be protected from vessels in transit, where possible.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section142.3, Labor Code.

HISTORY

1. New section filed 1-13-87; effective thirtieth day thereafter (Register 87, No. 3). For history of former section, see Registers 82, No. 35 and 70, No.48.

2. Adoption of NOTE filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1544. Earthwork and Excavating.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment of subsections (a), (d) and (e) filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).

2. Repealer filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1544. Earthwork and Excavating.

§1544. Earthwork and Excavating.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment of subsections (a), (d) and (e) filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).
2. Repealer filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1545. Overburden.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

§1545. Overburden.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment of subsection (a) filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).
2. Repealer filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1546. Face Inspection and Control.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1546. Face Inspection and Control.

§1546. Face Inspection and Control.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment of subsections (a), (d) and (e) filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).
2. Repealer filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

§1547. Protection of Workers at the Face.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

TITLE 8. Industrial Relations
Division 1. Department of Industrial Relations
Chapter 4. Division of Industrial Safety
Subchapter 4. Construction Safety Orders
Article 6. Excavations
§1547. Protection of Workers at the Face.

§1547. Protection of Workers at the Face.

• Note • History

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

1. Amendment filed 8-23-82; effective thirtieth day thereafter (Register 82, No. 35).
2. Repealer filed 8-26-91; operative 9-25-91 (Register 92, No. 13).

Article 7. Bins, Bunkers, Hoppers, and Material Storage

§1548. Bins, Bunkers, and Hoppers.

• Note • History

(a) Every open bin, bunker, hopper, and dangerous equipment whose upper edge is less than 36 inches above the floor or working level shall be equipped with a standard railing around its edges, or a grating or grille shall cover the top. Where grille or grating is the only protection, it shall have no opening whose least dimension exceeds 10 inches. Where railings are used they may be temporarily removed to provide necessary working openings.

(b) The grating or grille shall be of strength sufficient to withstand any load that is customarily imposed upon it.

(c) Where bins, bunkers, or hoppers are loaded by backing an automotive truck to one edge, there shall be installed bumper stops not less than 10 by 10 inches, securely fastened in a manner to prevent the truck overrunning the runway. At least 8- by 8-inch timbers or equivalent shall be securely fastened along the sides of the runway to prevent a truck overrunning the sides of the runway.

(d) Open Top Bins.

(1) Where employees are permitted or required to work in or above open top bins over 8 feet in depth, an upper working area consisting of a platform or walkway shall be provided, and shall be guarded with a standard railing and toeboard.

(2) Personal fall arrest or restraint systems complying with the requirements of Section 1670 shall be provided and used by employees when above requirements are not met.

NOTE

Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

HISTORY

APPENDIX D

ORGANIC VAPOR MONITORING DOCUMENTATION FORM

ORGANIC VAPOR MONITORING DOCUMENTATION FORM

Contractor:

Address: Page of

Telephone: Fax: Date:

Project: Client:

Address: Location:

Operation Monitored:

Instrument: Model: Serial No.:

Calibration Date: Probe: Settings:

Temp: Rel. Hum: Wind: Indoor: Outdoor:

Interference: Operator:

Sample No	Time	Scale	Setting	Reading	Location	Comments

APPENDIX B

GEOPHYSICAL MAP

UNLIMITED REPROGRAPHICS

Downtown L.A.
444 S. Flower St.
Suite 250
Los Angeles, CA 90071
Tel.: 213.892.9000
Fax: 213.892.9010

Century City
1880 Century Park East
Suite 209
Los Angeles, CA 90067
Tel.: 310.282.0202
Fax: 310.282.0209

Long Beach
200 Oceangate
Suite 820
Long Beach, CA 90802
Tel.: 562.491.4600
Fax: 562.491.0045

Job Number: 78818 090988

Firm Name: Yee & Belilove
Address:
Phone
Order By: Karen Khazen
Client Matter #: Carpenter V. Eclipse

Today's Date 9-10-09 Time In:
Due Date: ASAP Time Due:
Of Originals # Of Copies PNC
Of Boxes: 138
PRODUCTION A____ B____ C____ D____ F____

Copy Instructions

1243-108

- ☐ As Originals
- ☐ Other
- ☐ Only Tagged / Clipped Docs
- ☐ Staple As Originals
- ☐ Clip As Originals
- ☐ 2 Sided for 2 Sided
- ☐ 1 Sided to 2 Sided
- ☐ 2 Sided to 1 Sided
- ☐ Restaple Originals
- ☐ Reclip Originals
- ☐ DO NOT Staple or Clip Copies
- ☐ DO NOT Staple or Clip Originals
- ☐ Rubberband Copies ☐ As Original ☐ Per
- Color ☐ B/W ☐ Color
- Oversize ☐ Fold ☐ Roll

DO WE COPY?	YES	NO	COLOR
COVERS	☐	☐	☐
REDWELDS	☐	☐	☐
SPINES	☐	☐	☐
DIVIDER TABS	☐	☐	☐
FILE FOLDERS	☐	☐	☐
POST IT NOTES	☐	☐	☐
	☐ R&R		☐ R&T
STANDARD LANGUAGE	☐	☐	☐
SLIP SHEETS	☐	☐	☐ AS ORIGINAL

Finishing

Original	Copy				
☐	☐	2 Hole Drill	☐ Top	☐ Side	
☐	☐	3 Hole Drill	☐ Top	☐ Side	
☐	☐	Velo Bind	☐ Top	☐ Side	☐ Covers
☐	☐	GBC Bind	☐ Top	☐ Side	☐ Covers
☐	☐	Acco Bind	☐ Top	☐ Side	☐ Covers

Supplies

- Binders ☐ 1" ☐ 2" ☐ 3" ☐ 4" ☐ 5" ☐ Black ☐ White ☐ View
- Redweld ☐ Letter ☐ Legal
- Manila Folders ☐ Letter ☐ Legal
- Tabs ☐ Side ☐ Bottom ☐ Alpha ☐ Number ☐ w/ Exhibit

Bates Labeling

☐ Original ☐ Copies
Prefix Sequence Start ☐ Space ☐ Other

Special Instructions

1. ON:site: Friday Morning @ 10:00 AM 9-11-09
2. Location: 129 East Linden Ave. Burbank, CA. 91502
3. Copy Documents regarding Weekend Warrior.
4. Approx. 138 Boxes

Client Signature Account Manager/CSR JEFF Graham

APPENDIX C

PERTINENT INFORMATION REGARDING GROUNDWATER MONITORING WELLS

August 19, 2004
Project No. 205372004

Mr. Steve Hariri
Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject: Documentation of Telephone Conversation
Groundwater Well Relocation
Bloomfield II Property
Formerly 10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Hariri:

As per your request, this letter documents our telephone conversation on July 28, 2004, regarding my request to abandon and relocate two groundwater monitoring wells at the Bloomfield II Property formerly located at 10806 Bloomfield Avenue in Santa Fe Springs (site). Three groundwater monitoring wells (designated MW-106, MW-107, and MW-203) are currently located on site and are associated with the local groundwater monitoring activities currently being conducted by the Cenco Refinery (Cenco), located immediately west of the site (Figure 1). Bloomfield Partners II, LLC recently purchased the site and are in the process of redeveloping the property as commercial use. Ninyo & Moore is requesting that well MW-106 be abandoned and relocated due to its close proximity to oil well Texaco Inc. "Baker" 35 and proposed Building 1 (Figure 1). Texaco Inc. "Baker" 35 is planned to be reabandoned in the near future. Ninyo & Moore is also requesting that well MW-107 be abandoned and relocated due to its location beneath proposed Building 8 (Figure 1). Because well MW-203 is located in an area that is proposed to be used as a parking lot for the new development, this well will not need to be relocated. Grading and redevelopment activities will be conducted around this well.

Abandonment and relocation activities will be conducted in general accordance with current regulatory guidelines. Following completion of the redevelopment activities (estimated to be completed within approximately 10 months), wells MW-106 and MW-107 will be relocated as

shown on Figure 1. The wells will be replaced using similar construction as the former wells. Because well MW-203 will need to be adjusted to the new grade, casings elevations of all three wells will be resurveyed following redevelopment activities.

Mr. Michael V. Barranco, Environmental Coordinator at Cenco, has been notified of the proposed abandonment and relocation activities. Following completion of these activities, well completion logs and survey data will be provided to the Regional Water Quality Control Board, Los Angeles Region (RWQCB) and Cenco. As per your verbal approval, the abandonment of groundwater monitoring wells MW-106 and MW-107 is currently being completed. If you have any questions or comments regarding this letter, please contact the undersigned at your convenience.

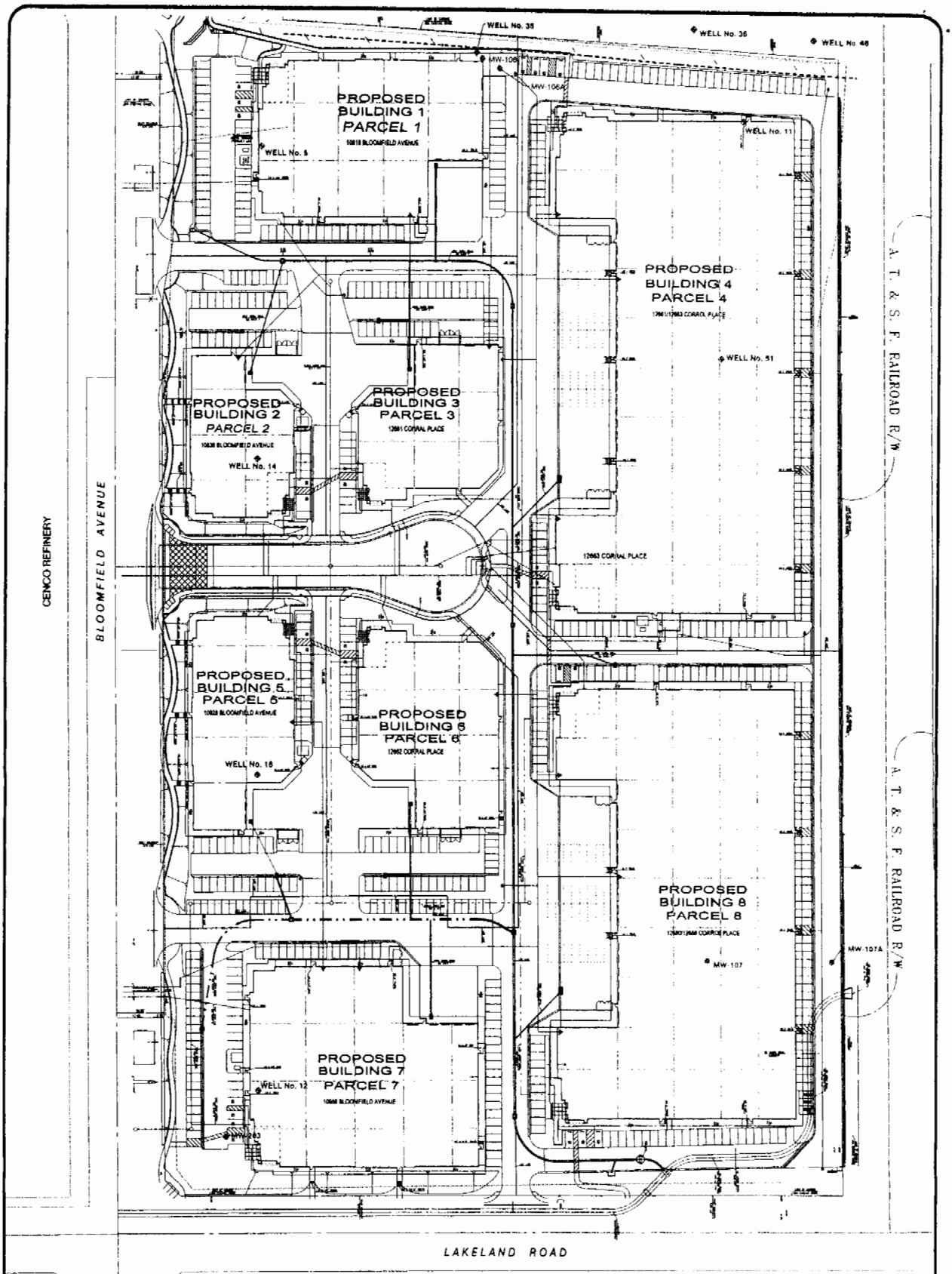
Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR/emp

Attachments: Figure 1 – Site Plan

Distribution: (1) Addressee
(1) Mr. Michael V. Barranco, Cenco Refining Company
(1) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory, LLP
(1) Mr. Jim Garvey, Newport Real Estate Services, Inc.



LEGEND

MW-108A	PROPOSED RELOCATED GROUNDWATER MONITORING WELL LOCATION
MW-203	GROUNDWATER MONITORING WELL LOCATION
WELL No. 12	OIL WELL LOCATION
	HYDRANT
	LOT LINE
	FENCE

NOTES

1. BASE MAP PROVIDED BY BLOOMFIELD PARTNER II, LLC
2. ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

N

0 100

APPROXIMATE SCALE IN FEET

205372-B1.DWG

Ninyo & Moore

SITE PLAN

BLOOMFIELD II PROPERTY
FORMERLY 10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372004	8/2004	1

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

September 28, 2004
Project No. 205372004

Mr. Steve Hariri
Regional Water Quality Control Board, Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Subject: Documentation of Groundwater Well Destruction
Bloomfield II Property
Formerly 10806 Bloomfield Avenue
Santa Fe Springs, California

References: Ninyo & Moore, 2004, Documentation of Telephone Conversation Groundwater Well Relocation, Bloomfield II Property, Formerly 10806 Bloomfield Avenue, Santa Fe Springs, California: Letter prepared for the Regional Water Quality Control Board, Los Angeles Region, Los Angeles, California, dated August 19.

TRC, 2002, Draft Semi-Annual Groundwater Monitoring Report, September 2002 Monitoring Event, CENCO Refining Company, Santa Fe Springs, California: Report prepared for CENCO Refining Company, Santa Fe Springs, California, dated December 2.

Dear Mr. Hariri:

This letter documents the destruction of two groundwater wells designated MW-106 and MW-107 at the Bloomfield II Property formerly located at 10806 Bloomfield Avenue in the city of Santa Fe Springs, California (site). Work was conducted in general accordance with your verbal authorization on July 28, 2004, and our letter dated August 19, 2004, entitled "Documentation of Telephone Conversation Groundwater Monitoring Well Relocation."

As we discussed in our telephone conversation and as documented in our letter, Bloomfield Partners II, LLC recently purchased the site and are in the process of redeveloping the property. Monitoring well MW-106 was abandoned due to its location close to an oil well that is planned to be reabandoned and its location under the footprint of a proposed building. Monitoring well MW-107 was abandoned due to its location under a footprint of a proposed building. Following redevelopment activities, Ninyo & Moore will relocate these wells in more desirable locations

(i.e., planters, driveways, or parking lots). Our letter dated August 19, 2004, presented proposed locations of the new wells, however, before installation, Ninyo & Moore will obtain approval of the new locations from the Regional Water Quality Control Board, Los Angeles Region (RWQCB).

Ninyo & Moore obtained destruction permits with the Los Angeles County Department of Health Services (DOHS). Copies of the approved destruction permits are provided in Attachment A. On August 9, 2004, Ninyo & Moore retained West Hazmat Drilling of Anaheim, California, a State-licensed C-57 drilling company to destroy the wells in accordance with the DOHS requirements and guidelines outlined in the California Well Standards Bulletins 74-81 and 74-90. The wells were constructed of 4-inch schedule 40 polyvinyl chloride (PVC) casing. Other construction details, such as the perforated casing interval, length of filter pack, and type of sealing materials, were unknown. Prior to destruction, the depth of each well was accurately measured. The total depth of monitoring wells MW-106 and MW-107 were measured at approximately 106 and 105 feet below the ground surface (bgs), respectively. During the latest groundwater monitoring activities, groundwater was measured in September 2002 at depths of approximately 89 and 96 feet bgs, respectively (TRC, 2002). The wells were over-drilled using 10-inch hollow stem auger and the casings were destroyed using a "bulldog" drill bit. A bentonite grout was then tremied into the borehole to ground surface. No stained or odorous soil cuttings were produced and photoionization detector (PID) readings of the cuttings indicated less than 1 part per million (ppm) of volatile organic compounds (VOCs). Based on these results and because the property is planned to be graded, the cuttings were left on site.

If you have any questions or comments regarding this letter, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Richard Stevenson
Staff Environmental Scientist

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

RHS/PAR/emp

Attachments: Attachment A – Copies of Well Destruction Permits

Distribution: (1) Addressee
(1) Mr. Michael V. Barranco, Cenco Refining Company
(1) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Mr. Jim Garvey, Newport Real Estate Services, Inc.
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory, LLP

ATTACHMENT A

COPIES OF WELL DESTRUCTION PERMITS

WELL PERMIT APPLICATION - NON-PRODUCTION WELLS

WATER & SEWAGE / MOUNTAIN & RURAL PROGRAMS - ENVIRONMENTAL HEALTH DIVISION
5050 COMMERCE DRIVE, BALDWIN PARK, CA 91706 (626) 430-5380 FAX (626) 813-3016

DATE:

___ NEW WELL CONSTRUCTION	X MONITORING	___ HEAT EXCHANGE
___ RECONSTRUCTION OR RENOVATION	___ CATHODIC	___ OTHER (Specify) :
X DECOMMISSIONING	___ INJECTION	
___ OTHER:	___ EXTRACTION	Wells MW-106 + MW-107

WELL LOCATION

SITE ADDRESS	CITY	ZIP CODE
10806 Bloomfield Avenue	Santa Fe Springs	90670

Township	Range	Section	Map Book Page/ Grid
3S	11W	5	707/A6

NO. OF WELLS IN EACH PARCEL: 1 well / parcel Attach site map with well locations

WELL STRUCTURE

Type and Size of Production Casing	Schedule 40 PVC, 4inch
Sanitary / Annular Sealing Material	Sand / Bentonite
Depth of Sanitary / Annular Seal	≈ 80 feet
Conductor Casing Seal	NA

CONSULTANT

Company	Ninyo & Moore
Contact Person	Paul Roberts
Address	475 Goddard, Suite 200
City , State Zip	Irvine, CA 92618
Telephone	949-753-7070

OWNER / DRILLER INFORMATION

Well Owner	Cenco Refining Co.
Address	12345 Lakeland Road
City / Zip Code	Santa Fe Springs 90670
Telephone	562-944-6111
Well Driller	West Hazmat Drilling
Address	1016 E. Katella Avenue
City / Zip Code	Anaheim 92805
C-57 License No.	819548
Telephone	714-939-6850

IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED IN THE FIELD ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THIS OFFICE, WORK PLAN MODIFICATIONS MAY BE REQUIRED

WELL DECOMMISSIONING

Well Depth log / records	≈ 120 ft / no records
Method of Well Assessment	Field measurement
Depth and Number of Perforations	Unkown
Type of Perforator Size of Perforations	Unknown
Type and Amount of Sealant	Bentonite grout
Method of Upper Seal Pressure Application	Tremie

DISPOSITION OF PERMIT (Department Use Only)
THIS PERMIT IS CONSIDERED COMPLETE WHEN THE WORK PLAN IS APPROVED AND WHEN THE WELL COMPLETION LOG IS RECEIVED. NO WELL CONSTRUCTION OR DECOMMISSIONING CAN BE INITIATED WITHOUT THE WORK PLAN APPROVAL FROM THIS DEPARTMENT.

WORK PLAN APPROVAL
This Approval is Valid for 180 Days

Date	REHS
8/9/01	

Conditions

I hereby agree to comply in every respect with all the regulations of the County Environmental Health Division and with all ordinances and laws of the County of Los Angeles and the State of California pertaining to well construction, reconstruction and decommissioning. Upon completion of the well and within thirty days thereafter, I will furnish the Environmental Health office with a completion log of the well giving date drilled, depth of the well, perforations in the casing, and any other data deemed necessary by County Environmental Health Division.

Paul Roberts
Applicant's Signature

Applicant Name: (PRINT)
Telephone:

FINAL INSPECTION

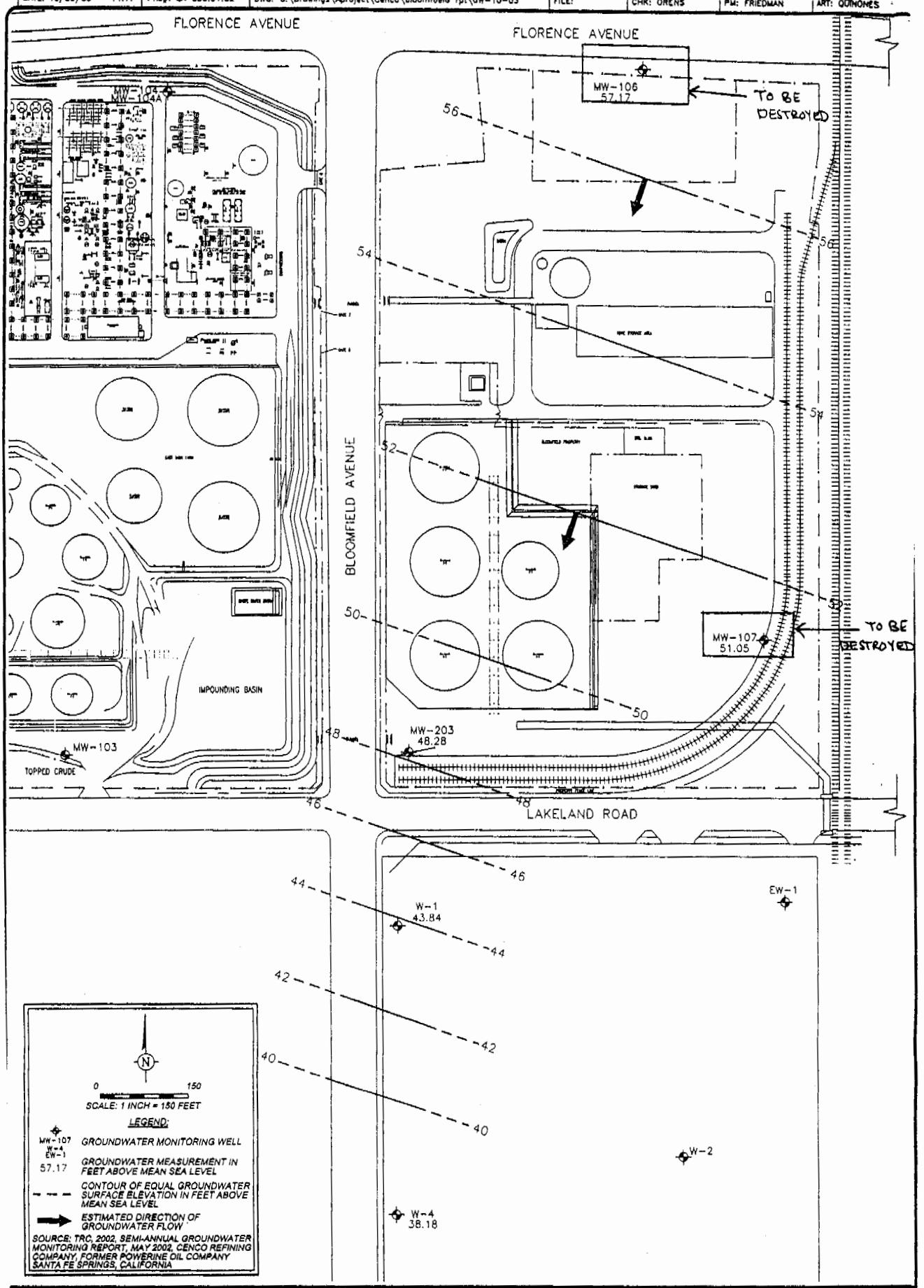
Date	REHS

PERMIT ISSUED
The well log must be submitted to this Department prior to issuance of the final approval

Date	REHS

76A668-A
H-13 (Rev. 01/2001)

DATE: 10/30/03 14:17 | PRJ#: CA 630.01.02 | DWG: G:\Drawings\Aproject\Cenco\bloomfield rpt\GW-10-03 | FILE: | CHK: ORENS | PM: FRIEDMAN | ART: QUINONES



ARCADIS

GROUNDWATER GRADIENT MAP
OCTOBER 2003

CENCO REFINING COMPANY
BLOOMFIELD PROPERTY, 12345 LAKELAND AVENUE
SANTA FE SPRINGS, CALIFORNIA

FIGURE
8

APPENDIX D

PERTINENT INFORMATION REGARDING AREA 1

September 20, 2004

Paul Roberts
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618
TEL: (949) 753-7070
FAX: (949) 753-7071

RE: BLOOMFIELD II, 205372005

Attention: Paul Roberts

ELAP No.: 1838
NELAP No.: 02107CA
Workorder No.: 070941

Enclosed are the results for sample(s) received on September 17, 2004 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

This cover letter and a case narrative are an integral part of this analytical report.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	Area 1-1
Lab Order:	070941	**Collection Date:**	9/17/2004 2:40:00 PM
Project:	BLOOMFIELD II, 205372005		
Lab ID:	070941-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP6_040920A	QC Batch: 19433				PrepDate: 9/17/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	9/20/2004
Arsenic	12	1.0		mg/Kg	1	9/20/2004
Barium	170	1.0		mg/Kg	1	9/20/2004
Beryllium	ND	1.0		mg/Kg	1	9/20/2004
Cadmium	ND	1.0		mg/Kg	1	9/20/2004
Chromium	46	1.0		mg/Kg	1	9/20/2004
Cobalt	12	1.0		mg/Kg	1	9/20/2004
Copper	41	1.0		mg/Kg	1	9/20/2004
Lead	110	1.0		mg/Kg	1	9/20/2004
Molybdenum	ND	1.0		mg/Kg	1	9/20/2004
Nickel	24	1.0		mg/Kg	1	9/20/2004
Selenium	1.8	1.0		mg/Kg	1	9/20/2004
Silver	ND	1.0		mg/Kg	1	9/20/2004
Thallium	4.6	1.0		mg/Kg	1	9/20/2004
Vanadium	38	1.0		mg/Kg	1	9/20/2004
Zinc	290	1.0		mg/Kg	1	9/20/2004
DIESEL RANGE ORGANICS BY GC/FID						
(LUFT)				**EPA 8015B(M)**		
RunID: GC7_040919A	QC Batch: 19431				PrepDate: 9/17/2004	Analyst: **CBR**
Diesel	350	10		mg/Kg	1	9/20/2004
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC7_040919A	QC Batch: 19431				PrepDate: 9/17/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	210	10		mg/Kg	1	9/20/2004
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	9/20/2004
T/R Hydrocarbons: C13-C15	16	10		mg/Kg	1	9/20/2004
T/R Hydrocarbons: C16-C22	110	10		mg/Kg	1	9/20/2004
T/R Hydrocarbons: C23-C32	430	10		mg/Kg	1	9/20/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_040920A	QC Batch: E04VS269				PrepDate: 9/17/2004	Analyst: **JV**
GRO	ND	0.96		mg/Kg	1	9/20/2004

Qualifiers:

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E - Value above quantitation range
H-Samples exceding holding time

Page 1 of 6

Results are wet unless otherwise specified

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3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

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Ninyo & Moore
475 Goddard Suite 200
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Laboratory Director

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3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT: Ninyo & Moore
Project: BLOOMFIELD II, 205372005
Lab Order: 070941

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Analytical Comments for EPA 8270

Sample 070941-001G: Dilution was necessary due to sample matrix.

Analytical Comments for EPA 8015 (Diesel)

Sample 070941-001G: Sample contains hydrocarbons within the diesel range that do not match the diesel pattern. Quantitation was based on a diesel standard.

Advanced Technology Laboratories
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Advanced Technology Laboratories

Date: *20-Sep-04*

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Lab Order:	070941	**Collection Date:**	9/17/2004 2:40:00 PM
Project:	BLOOMFIELD II, 205372005		
Lab ID:	070941-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP6_040920A	QC Batch: 19433			PrepDate:	9/17/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	9/20/2004
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Vanadium	38	1.0		mg/Kg	1	9/20/2004
Zinc	290	1.0		mg/Kg	1	9/20/2004
DIESEL RANGE ORGANICS BY GC/FID						
(LUFT)				**EPA 8015B(M)**		
RunID: GC7_040919A	QC Batch: 19431			PrepDate:	9/17/2004	Analyst: **CBR**
Diesel	350	10		mg/Kg	1	9/20/2004
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC7_040919A	QC Batch: 19431			PrepDate:	9/17/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	210	10		mg/Kg	1	9/20/2004
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	9/20/2004
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T/R Hydrocarbons: C16-C22	110	10		mg/Kg	1	9/20/2004
T/R Hydrocarbons: C23-C32	430	10		mg/Kg	1	9/20/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_040920A	QC Batch: E04VS269			PrepDate:	9/17/2004	Analyst: **JV**
GRO	ND	0.96		mg/Kg	1	9/20/2004

Qualifiers:

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Advanced Technology Laboratories

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Lab Order:	070941	**Collection Date:**	9/17/2004 2:40:00 PM
Project:	BLOOMFIELD II, 205372005		
Lab ID:	070941-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/PID				**EPA 8021B**		
RunID: GC2_040920A	QC Batch: E04VS269			PrepDate:	9/17/2004	Analyst: **JV**
Benzene	ND	4.8		µg/Kg	1	9/20/2004
Ethylbenzene	ND	4.8		µg/Kg	1	9/20/2004
m,p-Xylene	ND	4.8		µg/Kg	1	9/20/2004
Methyl tert-butyl ether	ND	4.8		µg/Kg	1	9/20/2004
o-Xylene	ND	4.8		µg/Kg	1	9/20/2004
Toluene	ND	4.8		µg/Kg	1	9/20/2004
HYDROCARBON CHAIN IDENTIFICATION				**EPA 8015B**		
RunID: GC2_040920A	QC Batch: E04VS269			PrepDate:	9/17/2004	Analyst: **JV**
T/R Hydrocarbons: C5-C12	ND	0.96		mg/Kg	1	9/20/2004
PCB BY GC/ECD	**(EPA 3550B)**			**EPA 8082**		
RunID: GC4_040917A	QC Batch: 19429			PrepDate:	9/17/2004	Analyst: **EES**
Aroclor 1016	ND	16		µg/Kg	1	9/18/2004
Aroclor 1221	ND	33		µg/Kg	1	9/18/2004
Aroclor 1232	ND	16		µg/Kg	1	9/18/2004
Aroclor 1242	ND	16		µg/Kg	1	9/18/2004
Aroclor 1248	ND	16		µg/Kg	1	9/18/2004
Aroclor 1254	56	16		µg/Kg	1	9/18/2004
Aroclor 1260	33	16		µg/Kg	1	9/18/2004
Aroclor 1262	ND	16		µg/Kg	1	9/18/2004
Aroclor 1268	ND	16		µg/Kg	1	9/18/2004
MERCURY BY COLD VAPOR TECHNIQUE	**(EPA 7471)**			**EPA 7471A**		
RunID: AA1_040920A	QC Batch: 19432			PrepDate:	9/17/2004	Analyst: **JT**
Mercury	0.46	0.10		mg/Kg	1	9/20/2004
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8260B**		
RunID: MS1_040917A	QC Batch: P04VS121			PrepDate:	9/17/2004	Analyst: **JPC**
1,1,1,2-Tetrachloroethane	ND	5.3		µg/Kg	1	9/18/2004

Qualifiers:

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H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	Area 1-1
Lab Order:	070941	**Collection Date:**	9/17/2004 2:40:00 PM
Project:	BLOOMFIELD II, 205372005		
Lab ID:	070941-001	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_040917A QC Batch: P04VS121 PrepDate: 9/17/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1-Trichloroethane	ND	5.3		µg/Kg	1	9/18/2004
1,1,2,2-Tetrachloroethane	ND	5.3		µg/Kg	1	9/18/2004
1,1,2-Trichloroethane	ND	5.3		µg/Kg	1	9/18/2004
1,1-Dichloroethane	ND	5.3		µg/Kg	1	9/18/2004
1,1-Dichloroethene	ND	5.3		µg/Kg	1	9/18/2004
1,1-Dichloropropene	ND	5.3		µg/Kg	1	9/18/2004
1,2,3-Trichlorobenzene	ND	5.3		µg/Kg	1	9/18/2004
1,2,3-Trichloropropane	ND	5.3		µg/Kg	1	9/18/2004
1,2,4-Trichlorobenzene	ND	5.3		µg/Kg	1	9/18/2004
1,2,4-Trimethylbenzene	ND	5.3		µg/Kg	1	9/18/2004
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	9/18/2004
1,2-Dibromoethane	ND	5.3		µg/Kg	1	9/18/2004
1,2-Dichlorobenzene	ND	5.3		µg/Kg	1	9/18/2004
1,2-Dichloroethane	ND	5.3		µg/Kg	1	9/18/2004
1,2-Dichloropropane	ND	5.3		µg/Kg	1	9/18/2004
1,3,5-Trimethylbenzene	ND	5.3		µg/Kg	1	9/18/2004
1,3-Dichlorobenzene	ND	5.3		µg/Kg	1	9/18/2004
1,3-Dichloropropane	ND	5.3		µg/Kg	1	9/18/2004
1,4-Dichlorobenzene	ND	5.3		µg/Kg	1	9/18/2004
2,2-Dichloropropane	ND	5.3		µg/Kg	1	9/18/2004
2-Chlorotoluene	ND	5.3		µg/Kg	1	9/18/2004
4-Chlorotoluene	ND	5.3		µg/Kg	1	9/18/2004
4-Isopropyltoluene	ND	5.3		µg/Kg	1	9/18/2004
Benzene	ND	5.3		µg/Kg	1	9/18/2004
Bromobenzene	ND	5.3		µg/Kg	1	9/18/2004
Bromodichloromethane	ND	5.3		µg/Kg	1	9/18/2004
Bromoform	ND	5.3		µg/Kg	1	9/18/2004
Bromomethane	ND	5.3		µg/Kg	1	9/18/2004
Carbon tetrachloride	ND	5.3		µg/Kg	1	9/18/2004
Chlorobenzene	ND	5.3		µg/Kg	1	9/18/2004
Chloroethane	ND	5.3		µg/Kg	1	9/18/2004
Chloroform	ND	5.3		µg/Kg	1	9/18/2004
Chloromethane	ND	5.3		µg/Kg	1	9/18/2004
cis-1,2-Dichloroethene	ND	5.3		µg/Kg	1	9/18/2004
cis-1,3-Dichloropropene	ND	5.3		µg/Kg	1	9/18/2004
Di-isopropyl ether	ND	5.3		µg/Kg	1	9/18/2004

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Lab Order:	070941	**Collection Date:**	9/17/2004 2:40:00 PM
Project:	BLOOMFIELD II, 205372005		
Lab ID:	070941-001	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS1_040917A QC Batch: P04VS121 PrepDate: 9/17/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	5.3		µg/Kg	1	9/18/2004
Dibromomethane	ND	5.3		µg/Kg	1	9/18/2004
Dichlorodifluoromethane	ND	5.3		µg/Kg	1	9/18/2004
Ethyl Tert-butyl ether	ND	5.3		µg/Kg	1	9/18/2004
Ethylbenzene	ND	5.3		µg/Kg	1	9/18/2004
Hexachlorobutadiene	ND	5.3		µg/Kg	1	9/18/2004
Isopropylbenzene	ND	5.3		µg/Kg	1	9/18/2004
m,p-Xylene	ND	5.3		µg/Kg	1	9/18/2004
Methylene chloride	ND	5.3		µg/Kg	1	9/18/2004
MTBE	ND	5.3		µg/Kg	1	9/18/2004
n-Butylbenzene	ND	5.3		µg/Kg	1	9/18/2004
n-Propylbenzene	ND	5.3		µg/Kg	1	9/18/2004
Naphthalene	ND	5.3		µg/Kg	1	9/18/2004
o-Xylene	ND	5.3		µg/Kg	1	9/18/2004
sec-Butylbenzene	ND	5.3		µg/Kg	1	9/18/2004
Styrene	ND	5.3		µg/Kg	1	9/18/2004
Tert-amyl methyl ether	ND	5.3		µg/Kg	1	9/18/2004
Tert-Butanol	ND	110		µg/Kg	1	9/18/2004
tert-Butylbenzene	ND	5.3		µg/Kg	1	9/18/2004
Tetrachloroethene	ND	5.3		µg/Kg	1	9/18/2004
Toluene	ND	5.3		µg/Kg	1	9/18/2004
trans-1,2-Dichloroethene	ND	5.3		µg/Kg	1	9/18/2004
Trichloroethene	ND	5.3		µg/Kg	1	9/18/2004
Trichlorofluoromethane	ND	5.3		µg/Kg	1	9/18/2004
Vinyl chloride	ND	5.3		µg/Kg	1	9/18/2004

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS7_040917A QC Batch: 19439 PrepDate: 9/17/2004 Analyst: **IG**

1,2,4-Trichlorobenzene	ND	3300		µg/Kg	5	9/17/2004
1,2-Dichlorobenzene	ND	3300		µg/Kg	5	9/17/2004
1,3-Dichlorobenzene	ND	3300		µg/Kg	5	9/17/2004
1,4-Dichlorobenzene	ND	3300		µg/Kg	5	9/17/2004
2,4,5-Trichlorophenol	ND	3300		µg/Kg	5	9/17/2004
2,4,6-Trichlorophenol	ND	3300		µg/Kg	5	9/17/2004
2,4-Dichlorophenol	ND	16000		µg/Kg	5	9/17/2004

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Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT: Ninyo & Moore
Lab Order: 070941
Project: BLOOMFIELD II, 205372005
Lab ID: 070941-001

Client Sample ID: Area 1-1
Collection Date: 9/17/2004 2:40:00 PM
Matrix: SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS
(EPA 3550B) **EPA 8270C**

RunID: MS7_040917A QC Batch: 19439 PrepDate: 9/17/2004 Analyst: IG

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
2,4-Dimethylphenol	ND	3300		µg/Kg	5	9/17/2004
2,4-Dinitrophenol	ND	16000		µg/Kg	5	9/17/2004
2,4-Dinitrotoluene	ND	3300		µg/Kg	5	9/17/2004
2,6-Dinitrotoluene	ND	3300		µg/Kg	5	9/17/2004
2-Chloronaphthalene	ND	3300		µg/Kg	5	9/17/2004
2-Chlorophenol	ND	3300		µg/Kg	5	9/17/2004
2-Methylnaphthalene	ND	3300		µg/Kg	5	9/17/2004
2-Methylphenol	ND	3300		µg/Kg	5	9/17/2004
2-Nitroaniline	ND	16000		µg/Kg	5	9/17/2004
2-Nitrophenol	ND	3300		µg/Kg	5	9/17/2004
3,3'-Dichlorobenzidine	ND	6600		µg/Kg	5	9/17/2004
3-Nitroaniline	ND	16000		µg/Kg	5	9/17/2004
4,6-Dinitro-2-methylphenol	ND	16000		µg/Kg	5	9/17/2004
4-Bromophenyl-phenylether	ND	3300		µg/Kg	5	9/17/2004
4-Chloro-3-methylphenol	ND	6600		µg/Kg	5	9/17/2004
4-Chloroaniline	ND	6600		µg/Kg	5	9/17/2004
4-Chlorophenyl-phenylether	ND	3300		µg/Kg	5	9/17/2004
4-Methylphenol	ND	3300		µg/Kg	5	9/17/2004
4-Nitroaniline	ND	16000		µg/Kg	5	9/17/2004
4-Nitrophenol	ND	16000		µg/Kg	5	9/17/2004
Acenaphthene	ND	3300		µg/Kg	5	9/17/2004
Acenaphthylene	ND	3300		µg/Kg	5	9/17/2004
Anthracene	ND	3300		µg/Kg	5	9/17/2004
Benzidine (M)	ND	16000		µg/Kg	5	9/17/2004
Benzo(a)anthracene	ND	3300		µg/Kg	5	9/17/2004
Benzo(a)pyrene	ND	3300		µg/Kg	5	9/17/2004
Benzo(b)fluoranthene	ND	3300		µg/Kg	5	9/17/2004
Benzo(g,h,i)perylene	ND	3300		µg/Kg	5	9/17/2004
Benzo(k)fluoranthene	ND	3300		µg/Kg	5	9/17/2004
Benzoic acid	ND	16000		µg/Kg	5	9/17/2004
Benzyl alcohol	ND	6600		µg/Kg	5	9/17/2004
Bis(2-chloroethoxy)methane	ND	3300		µg/Kg	5	9/17/2004
Bis(2-chloroethyl)ether	ND	3300		µg/Kg	5	9/17/2004
Bis(2-chloroisopropyl)ether	ND	3300		µg/Kg	5	9/17/2004
Bis(2-ethylhexyl)phthalate	ND	3300		µg/Kg	5	9/17/2004
Butylbenzylphthalate	ND	3300		µg/Kg	5	9/17/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	Area 1-1
Lab Order:	070941	**Collection Date:**	9/17/2004 2:40:00 PM
Project:	BLOOMFIELD II, 205372005		
Lab ID:	070941-001	**Matrix:**	SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS
(EPA 3550B) **EPA 8270C**

RunID: MS7_040917A QC Batch: 19439 PrepDate: 9/17/2004 Analyst: **IG**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	3300		µg/Kg	5	9/17/2004
Di-n-butylphthalate	ND	3300		µg/Kg	5	9/17/2004
Di-n-octylphthalate	ND	3300		µg/Kg	5	9/17/2004
Dibenz(a,h)anthracene	ND	3300		µg/Kg	5	9/17/2004
Dibenzofuran	ND	3300		µg/Kg	5	9/17/2004
Diethylphthalate	ND	3300		µg/Kg	5	9/17/2004
Dimethylphthalate	ND	3300		µg/Kg	5	9/17/2004
Fluoranthene	ND	3300		µg/Kg	5	9/17/2004
Fluorene	ND	3300		µg/Kg	5	9/17/2004
Hexachlorobenzene	ND	3300		µg/Kg	5	9/17/2004
Hexachlorobutadiene	ND	6600		µg/Kg	5	9/17/2004
Hexachlorocyclopentadiene	ND	6600		µg/Kg	5	9/17/2004
Hexachloroethane	ND	3300		µg/Kg	5	9/17/2004
Indeno(1,2,3-cd)pyrene	ND	3300		µg/Kg	5	9/17/2004
Isophorone	ND	3300		µg/Kg	5	9/17/2004
N-Nitrosodi-n-propylamine	ND	3300		µg/Kg	5	9/17/2004
N-Nitrosodiphenylamine	ND	3300		µg/Kg	5	9/17/2004
Naphthalene	ND	3300		µg/Kg	5	9/17/2004
Nitrobenzene	ND	3300		µg/Kg	5	9/17/2004
Pentachlorophenol	ND	16000		µg/Kg	5	9/17/2004
Phenanthrene	ND	3300		µg/Kg	5	9/17/2004
Phenol	ND	3300		µg/Kg	5	9/17/2004
Pyrene	ND	3300		µg/Kg	5	9/17/2004

Qualifiers:

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E - Value above quantitation range
H-Samples exceding holding time

Page 6 of 6

Results are wet unless otherwise specified

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Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-19433** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **ICP6_040920A**
Client ID: **ZZZZZ** Batch ID: **19433** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **9/20/2004** SeqNo: **604918**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: **LCS-19433** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **ICP6_040920A**
Client ID: **ZZZZZ** Batch ID: **19433** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **9/20/2004** SeqNo: **604919**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	44.87	2.0	50	0	89.7	80	120	0	0		
Arsenic	47.42	1.0	50	0	94.8	80	120	0	0		
Barium	48.04	1.0	50	0	96.1	80	120	0	0		
Beryllium	46.72	1.0	50	0	93.4	80	120	0	0		
Cadmium	45.89	1.0	50	0	91.8	80	120	0	0		
Chromium	48.05	1.0	50	0	96.1	80	120	0	0		
Cobalt	45.26	1.0	50	0	90.5	80	120	0	0		
Copper	46.13	2.0	50	0	92.3	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **LCS-19433** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **ICP6_040920A**
Client ID: **ZZZZZ** Batch ID: **19433** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **9/20/2004** SeqNo: **604919**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	44.46	1.0	50	0	88.9	80	120	0	0		
Molybdenum	48.26	1.0	50	0	96.5	80	120	0	0		
Nickel	44.74	1.0	50	0	89.5	80	120	0	0		
Selenium	43.84	1.0	50	0	87.7	80	120	0	0		
Silver	46.67	1.0	50	0	93.3	80	120	0	0		
Thallium	44.77	1.0	50	0	89.5	80	120	0	0		
Vanadium	48.52	1.0	50	0	97	80	120	0	0		
Zinc	44.88	1.0	50	0	89.8	80	120	0	0		

Sample ID: **070897-002AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **ICP6_040920A**
Client ID: **ZZZZZ** Batch ID: **19433** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **9/20/2004** SeqNo: **604990**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	116.6	1.0	125	0	93.3	23	118	0	0		
Arsenic	123.4	1.0	125	1.817	97.3	64	111	0	0		
Barium	176.1	1.0	125	60.98	92.1	36	146	0	0		
Beryllium	124.2	1.0	125	0	99.3	50	120	0	0		
Cadmium	113.9	1.0	125	0	91.1	62	107	0	0		
Chromium	124.7	1.0	125	1.692	98.4	63	119	0	0		
Cobalt	116.3	1.0	125	0	93.1	63	111	0	0		
Copper	146.5	1.0	125	19.36	102	58	136	0	0		
Lead	111.1	1.0	125	1.464	87.7	47	125	0	0		
Molybdenum	127	1.0	125	2.546	99.6	63	116	0	0		
Nickel	114.8	1.0	125	1.142	91	57	116	0	0		
Selenium	117.4	1.0	125	0	93.9	47	118	0	0		
Silver	119.5	1.0	125	0	95.6	48	125	0	0		
Thallium	112.3	1.0	125	0	89.8	49	116	0	0		
Vanadium	128.7	1.0	125	2.04	101	65	122	0	0		
Zinc	143.2	1.0	125	28.18	92	36	140	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **070897-002AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **ICP6_040920A**
Client ID: **ZZZZZ** Batch ID: **19433** TestNo: **EPA 6010B (EPA 3050B)** Analysis Date: **9/20/2004** SeqNo: **604991**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	115.4	1.0	125	0	92.3	23	118	116.6	1.09	20	
Arsenic	121.3	1.0	125	1.817	95.6	64	111	123.4	1.68	20	
Barium	175.4	1.0	125	60.98	91.6	36	146	176.1	0.353	20	
Beryllium	122.7	1.0	125	0	98.1	50	120	124.2	1.20	20	
Cadmium	112.7	1.0	125	0	90.2	62	107	113.9	1.09	20	
Chromium	123.5	1.0	125	1.692	97.5	63	119	124.7	0.978	20	
Cobalt	115.4	1.0	125	0	92.3	63	111	116.3	0.810	20	
Copper	145.8	1.0	125	19.36	101	58	136	146.5	0.421	20	
Lead	109.3	1.0	125	1.464	86.3	47	125	111.1	1.61	20	
Molybdenum	125	1.0	125	2.546	98	63	116	127	1.59	20	
Nickel	114.3	1.0	125	1.142	90.5	57	116	114.8	0.482	20	
Selenium	115.8	1.0	125	0	92.6	47	118	117.4	1.36	20	
Silver	119.2	1.0	125	0	95.4	48	125	119.5	0.250	20	
Thallium	110.6	1.0	125	0	88.5	49	116	112.3	1.50	20	
Vanadium	127.6	1.0	125	2.04	100	65	122	128.7	0.832	20	
Zinc	147.6	1.0	125	28.18	95.5	36	140	143.2	3.04	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-19432	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 9/17/2004	Run ID: AA1_040920A
Client ID: ZZZZZ	Batch ID: 19432	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 9/20/2004	SeqNo: 604999

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

Sample ID: LCS-19432	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 9/17/2004	Run ID: AA1_040920A
Client ID: ZZZZZ	Batch ID: 19432	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 9/20/2004	SeqNo: 604998

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.131	0.10	2.08	0	102	80	120	0	0		

Sample ID: 070897-002AMS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 9/17/2004	Run ID: AA1_040920A
Client ID: ZZZZZ	Batch ID: 19432	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 9/20/2004	SeqNo: 604995

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.9701	0.10	0.83	0.06513	109	62	146	0	0		

Sample ID: 070897-002AMSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 9/17/2004	Run ID: AA1_040920A
Client ID: ZZZZZ	Batch ID: 19432	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 9/20/2004	SeqNo: 604996

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.9135	0.10	0.83	0.06513	102	62	146	0.9701	6.00	30	

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DSL H

Sample ID: **MB-19431** SampType: **MBLK** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604902**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	10									

Sample ID: **MB-19431** SampType: **MBLK** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_BACK_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604944**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	10									

Sample ID: **LCS-19431** SampType: **LCS** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604901**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1062	10	1000	0	106	73	125	0	0		

Sample ID: **LCS-19431** SampType: **LCS** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_BACK_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604945**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1074	10	1000	0	107	73	125	0	0		

Sample ID: **070888-018AMS** SampType: **MS** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_BACK_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604946**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1076	10	1000	9.414	107	70	128	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DSL H

Sample ID: **070888-018AMSD** SampType: **MSD** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_BACK_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604947**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1099	10	1000	9.414	109	70	128	1076	2.12	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E092004MB1 SampType: MBLK TestCode: 8015_S_G 50 Units: mg/Kg Prep Date: Run ID: GC2_040920A
Client ID: ZZZZZ Batch ID: E04VS269 TestNo: EPA 8015B(M Analysis Date: 9/20/2004 SeqNo: 605040

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									

Sample ID: E092004LC SampType: LCS TestCode: 8015_S_G 50 Units: mg/Kg Prep Date: Run ID: GC2_040920A
Client ID: ZZZZZ Batch ID: E04VS269 TestNo: EPA 8015B(M Analysis Date: 9/20/2004 SeqNo: 605171

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.443	1.0	5	0	88.9	76	116	0	0		

Sample ID: 070953-009AMS SampType: MS TestCode: 8015_S_G 50 Units: mg/Kg Prep Date: Run ID: GC2_040920A
Client ID: ZZZZZ Batch ID: E04VS269 TestNo: EPA 8015B(M Analysis Date: 9/20/2004 SeqNo: 605113

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	3.733	1.0	5	0	74.7	27	137	0	0		

Sample ID: 070953-009AMSD SampType: MSD TestCode: 8015_S_G 50 Units: mg/Kg Prep Date: Run ID: GC2_040920A
Client ID: ZZZZZ Batch ID: E04VS269 TestNo: EPA 8015B(M Analysis Date: 9/20/2004 SeqNo: 605114

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	3.689	1.0	5	0	73.8	27	137	3.733	1.19	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_S_B 5035P

Sample ID: **E092004MB1** SampType: **MBLK** TestCode: **8021_S_B 50** Units: **µg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8021B** Analysis Date: **9/20/2004** SeqNo: **605031**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	5.0									
Ethylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
Methyl tert-butyl ether	ND	5.0									
o-Xylene	ND	5.0									
Toluene	ND	5.0									

Sample ID: **E092004LC** SampType: **LCS** TestCode: **8021_S_B 50** Units: **µg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8021B** Analysis Date: **9/20/2004** SeqNo: **605205**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	33.85	5.0	27	0	125	48	132	0	0		
Ethylbenzene	50.86	5.0	42	0	121	78	133	0	0		
m,p-Xylene	175.1	5.0	193	0	90.7	69	103	0	0		
Methyl tert-butyl ether	524	5.0	543	0	96.5	51	110	0	0		
o-Xylene	72.2	5.0	65	0	111	74	117	0	0		
Toluene	158.6	5.0	134	0	118	73	125	0	0		

Sample ID: **070953-009AMS** SampType: **MS** TestCode: **8021_S_B 50** Units: **µg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8021B** Analysis Date: **9/20/2004** SeqNo: **605110**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.02	5.0	27	0	156	23	136	0	0		S
Toluene	141.8	5.0	134	0	106	31	140	0	0		

Sample ID: **070953-009AMSD** SampType: **MSD** TestCode: **8021_S_B 50** Units: **µg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8021B** Analysis Date: **9/20/2004** SeqNo: **605111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.07	5.0	27	0	156	23	136	42.02	0.131	30	S

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8021_S_B 5035P

Sample ID: **070953-009AMSD** SampType: **MSD** TestCode: **8021_S_B 50** Units: **µg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8021B** Analysis Date: **9/20/2004** SeqNo: **605111**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	144.8	5.0	134	0	108	31	140	141.8	2.11	30	

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8082_S

Sample ID: **MB-19429** SampType: **MBLK** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **GC4_040917A**
Client ID: **ZZZZZ** Batch ID: **19429** TestNo: **EPA 8082** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604957**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	16									
Aroclor 1221	ND	33									
Aroclor 1232	ND	16									
Aroclor 1242	ND	16									
Aroclor 1248	ND	16									
Aroclor 1254	ND	16									
Aroclor 1260	ND	16									
Aroclor 1262	ND	16									
Aroclor 1268	ND	16									

Sample ID: **LCSA-19429** SampType: **LCS** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **GC4_040917A**
Client ID: **ZZZZZ** Batch ID: **19429** TestNo: **EPA 8082** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604958**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	157.6	16	166.6	0	94.6	66	111	0	0		
Aroclor 1260	180.9	16	166.6	0	109	65	122	0	0		

Sample ID: **MB-19429MS** SampType: **MS** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **GC4_040917A**
Client ID: **ZZZZZ** Batch ID: **19429** TestNo: **EPA 8082** **(EPA 3550B)** Analysis Date: **9/18/2004** SeqNo: **604959**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	168.1	16	166.6	0	101	43	162	0	0		
Aroclor 1260	175.6	16	166.6	0	105	52	129	0	0		

Sample ID: **MB-19429MSD** SampType: **MSD** TestCode: **8082_S** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **GC4_040917A**
Client ID: **ZZZZZ** Batch ID: **19429** TestNo: **EPA 8082** **(EPA 3550B)** Analysis Date: **9/18/2004** SeqNo: **604960**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	176.5	16	166.6	0	106	43	162	168.1	4.87	30	
Aroclor 1260	183.2	16	166.6	0	110	52	129	175.6	4.22	30	

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Calculations are based on raw values
DO- Surrogate dilute out
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **P040917MB1** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **P040917MB1** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									

Qualifiers:
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **P040917MB1** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									

Sample ID: **P040917LC1** SampType: **LCS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604708**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	5.0	100	0	0	73	138	0	0		S
Benzene	ND	5.0	100	0	0	77	128	0	0		S
Chlorobenzene	ND	5.0	100	0	0	79	120	0	0		S
MTBE	ND	5.0	100	0	0	47	142	0	0		S
Toluene	ND	5.0	100	0	0	79	126	0	0		S
Trichloroethene	ND	5.0	100	0	0	76	125	0	0		S

Sample ID: **070920-002AMS** SampType: **MS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604709**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	5.0	100	0	0	49	141	0	0		S
Benzene	ND	5.0	100	0	0	48	143	0	0		S
Chlorobenzene	ND	5.0	100	0	0	27	144	0	0		S
MTBE	ND	5.0	100	0	0	32	173	0	0		S
Toluene	ND	5.0	100	0	0	53	140	0	0		S
Trichloroethene	ND	5.0	100	0	0	55	146	0	0		S

Sample ID: **070920-002AMSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604710**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	5.0	100	0	0	49	141	0	0	30	S

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **070920-002AMSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS1_040917A**
Client ID: **ZZZZZ** Batch ID: **P04VS121** TestNo: **EPA 8260B** Analysis Date: **9/17/2004** SeqNo: **604710**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	5.0	100	0	0	48	143	0	0	30	S
Chlorobenzene	ND	5.0	100	0	0	27	144	0	0	30	S
MTBE	ND	5.0	100	0	0	32	173	0	0	30	S
Toluene	ND	5.0	100	0	0	53	140	0	0	30	S
Trichloroethene	ND	5.0	100	0	0	55	146	0	0	30	S

Qualifiers:
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-19439**	SampType: **MBLK**	TestCode: **8270_S_FUL**	Units: **µg/Kg**	Prep Date: **9/17/2004**	Run ID: **MS7_040917A**
Client ID: **ZZZZZ**	Batch ID: **19439**	TestNo: **EPA 8270C**	**(EPA 3550B)**	Analysis Date: **9/17/2004**	SeqNo: **604680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	330									
1,2-Dichlorobenzene	ND	330									
1,3-Dichlorobenzene	ND	330									
1,4-Dichlorobenzene	ND	330									
2,4,5-Trichlorophenol	ND	330									
2,4,6-Trichlorophenol	ND	330									
2,4-Dichlorophenol	ND	1600									
2,4-Dimethylphenol	ND	330									
2,4-Dinitrophenol	ND	1600									
2,4-Dinitrotoluene	ND	330									
2,6-Dinitrotoluene	ND	330									
2-Chloronaphthalene	ND	330									
2-Chlorophenol	ND	330									
2-Methylnaphthalene	ND	330									
2-Methylphenol	ND	330									
2-Nitroaniline	ND	1600									
2-Nitrophenol	ND	330									
3,3'-Dichlorobenzidine	ND	660									
3-Nitroaniline	ND	1600									
4,6-Dinitro-2-methylphenol	ND	1600									
4-Bromophenyl-phenylether	ND	330									
4-Chloro-3-methylphenol	ND	660									
4-Chloroaniline	ND	660									
4-Chlorophenyl-phenylether	ND	330									
4-Methylphenol	ND	330									
4-Nitroaniline	ND	1600									
4-Nitrophenol	ND	1600									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									

Qualifiers:
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-19439**	SampType: **MBLK**	TestCode: **8270_S_FUL**	Units: **µg/Kg**	Prep Date: **9/17/2004**	Run ID: **MS7_040917A**
Client ID: **ZZZZZ**	Batch ID: **19439**	TestNo: **EPA 8270C**	**(EPA 3550B)**	Analysis Date: **9/17/2004**	SeqNo: **604680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzidine (M)	ND	1600									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Benzoic acid	ND	1600									
Benzyl alcohol	ND	660									
Bis(2-chloroethoxy)methane	ND	330									
Bis(2-chloroethyl)ether	ND	330									
Bis(2-chloroisopropyl)ether	ND	330									
Bis(2-ethylhexyl)phthalate	ND	330									
Butylbenzylphthalate	ND	330									
Chrysene	ND	330									
Di-n-butylphthalate	ND	330									
Di-n-octylphthalate	ND	330									
Dibenz(a,h)anthracene	ND	330									
Dibenzofuran	ND	330									
Diethylphthalate	ND	330									
Dimethylphthalate	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Hexachlorobenzene	ND	330									
Hexachlorobutadiene	ND	660									
Hexachlorocyclopentadiene	ND	660									
Hexachloroethane	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Isophorone	ND	330									
N-Nitrosodi-n-propylamine	ND	330									
N-Nitrosodiphenylamine	ND	330									

Qualifiers:
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-19439** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **MS7_040917A**
Client ID: **ZZZZZ** Batch ID: **19439** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604680**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	330									
Nitrobenzene	ND	330									
Pentachlorophenol	ND	1600									
Phenanthrene	ND	330									
Phenol	ND	330									
Pyrene	ND	330									

Sample ID: **LCS-19439** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **MS7_040917A**
Client ID: **ZZZZZ** Batch ID: **19439** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2548	330	3330	0	76.5	61	98	0	0		
1,4-Dichlorobenzene	2425	330	3330	0	72.8	56	91	0	0		
2,4-Dinitrotoluene	3161	330	3330	0	94.9	72	116	0	0		
2-Chlorophenol	2749	330	3330	0	82.6	64	101	0	0		
4-Chloro-3-methylphenol	3183	660	3330	0	95.6	74	114	0	0		
4-Nitrophenol	3218	1600	3330	0	96.6	74	124	0	0		
Acenaphthene	2771	330	3330	0	83.2	64	95	0	0		
N-Nitrosodi-n-propylamine	2585	330	3330	0	77.6	63	104	0	0		
Pentachlorophenol	3288	1600	3330	0	98.7	66	128	0	0		
Phenol	2902	330	3330	0	87.1	67	108	0	0		
Pyrene	3028	330	3330	0	90.9	63	100	0	0		

Sample ID: **MB-19439** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **MS7_040917A**
Client ID: **ZZZZZ** Batch ID: **19439** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2325	330	3330	0	69.8	61	98	0	0		
1,4-Dichlorobenzene	2196	330	3330	0	65.9	56	91	0	0		
2,4-Dinitrotoluene	3040	330	3330	0	91.3	72	116	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-19439** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **MS7_040917A**
Client ID: **ZZZZZ** Batch ID: **19439** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Chlorophenol	2544	330	3330	0	76.4	64	101	0	0		
4-Chloro-3-methylphenol	3019	660	3330	0	90.7	74	114	0	0		
4-Nitrophenol	3039	1600	3330	0	91.3	74	124	0	0		
Acenaphthene	2627	330	3330	0	78.9	64	95	0	0		
N-Nitrosodi-n-propylamine	2396	330	3330	0	71.9	63	104	0	0		
Pentachlorophenol	3150	1600	3330	0	94.6	66	128	0	0		
Phenol	2696	330	3330	0	81	67	108	0	0		
Pyrene	2833	330	3330	0	85.1	63	100	0	0		

Sample ID: **MB-19439** SampType: **MSD** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **9/17/2004** Run ID: **MS7_040917A**
Client ID: **ZZZZZ** Batch ID: **19439** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **9/17/2004** SeqNo: **604683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	2427	330	3330	0	72.9	61	98	2325	4.31	30	
1,4-Dichlorobenzene	2337	330	3330	0	70.2	56	91	2196	6.24	30	
2,4-Dinitrotoluene	2942	330	3330	0	88.3	72	116	3040	3.27	30	
2-Chlorophenol	2655	330	3330	0	79.7	64	101	2544	4.28	30	
4-Chloro-3-methylphenol	2998	660	3330	0	90	74	114	3019	0.709	30	
4-Nitrophenol	2931	1600	3330	0	88	74	124	3039	3.61	30	
Acenaphthene	2592	330	3330	0	77.8	64	95	2627	1.33	30	
N-Nitrosodi-n-propylamine	2480	330	3330	0	74.5	63	104	2396	3.47	30	
Pentachlorophenol	3044	1600	3330	0	91.4	66	128	3150	3.43	30	
Phenol	2791	330	3330	0	83.8	67	108	2696	3.45	30	
Pyrene	2783	330	3330	0	83.6	63	100	2833	1.76	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: HC_S_VOA_5035

Sample ID: **E092004MB1** SampType: **MBLK** TestCode: **HC_S_VOA_5** Units: **mg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8015B** Analysis Date: **9/20/2004** SeqNo: **605029**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C5-C12	ND	1.0									

Sample ID: **E092004LC** SampType: **LCS** TestCode: **HC_S_VOA_5** Units: **mg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8015B** Analysis Date: **9/20/2004** SeqNo: **605172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C5-C12	4.443	1.0	5	0	88.9	76	116	0	0		

Sample ID: **070953-009AMS** SampType: **MS** TestCode: **HC_S_VOA_5** Units: **mg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8015B** Analysis Date: **9/20/2004** SeqNo: **605107**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C5-C12	3.733	1.0	5	0	74.7	27	137	0	0		

Sample ID: **070953-009AMSD** SampType: **MSD** TestCode: **HC_S_VOA_5** Units: **mg/Kg** Prep Date: Run ID: **GC2_040920A**
Client ID: **ZZZZZ** Batch ID: **E04VS269** TestNo: **EPA 8015B** Analysis Date: **9/20/2004** SeqNo: **605108**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C5-C12	3.689	1.0	5	0	73.8	27	137	3.733	1.19	30	

Qualifiers:
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *20-Sep-04*

CLIENT: Ninyo & Moore
Work Order: 070941
Project: BLOOMFIELD II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: HC_S_SVOA

Sample ID: **MB-19431** SampType: **MBLK** TestCode: **HC_S_SVOA** Units: **mg/Kg** Prep Date: **9/17/2004** Run ID: **GC7_040919A**
Client ID: **ZZZZZ** Batch ID: **19431** TestNo: **EPA 8015B (LUFT)** Analysis Date: **9/19/2004** SeqNo: **604916**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C12	ND	10									
T/R Hydrocarbons: C13-C15	ND	10									
T/R Hydrocarbons: C16-C22	ND	10									
T/R Hydrocarbons: C23-C32	ND	10									
T/R Hydrocarbons: >C32	ND	10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: BA Date: 091704

Method of Transport: Client ☑ ATL ☑ CA OverN ☐ FEDEX ☐ Other:

Sample Condition Upon Receipt:
1. CHILLED Y ☑ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐
3. CONTAINER INTACT Y ☑ N ☐
4. SEALED Y ☐ N ☑
5. # OF SPLS MATCH COC Y ☑ N ☐
6. PRESERVED Y ☐ N ☐

Client: WINZLER & KELLY MOORE
Attn: ~~Richard S~~ PAUL ROBERTS
Address: 475 Goddard, Suite 200
City: Irvine State: CA Zip Code: 92618
TEL: (949) 753-7070
FAX: (949) 753-7071

Project Name: BLOOMFIELD II Project #: 205372005 Sampler: (Printed Name) Richard Stevenson (Signature)

Relinquished by: (Signature and Printed Name) RICHARD STEVENSON Date: 9/17/04 Time: 1540 Received by: (Signature and Printed Name) Date: 9/17/04 Time: 1540

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Richard Stevenson 9/17/04
Print Name Date
Signature

Send Report To: Attn: Same As Client
Co:
Address
City State Zip

Bill To: Attn: Same As Client
Co:
Address
City State Zip

Special Instructions/Comments: Please turn around as fast as possible

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles) + OXYS	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / BTEX	8015B (DRO) - Full Chain	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	870941-001	Area 1-1	9/17/04	1440	X	X	X	X	X	X		X				A	9	V/J G		

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

APPENDIX E

PERTINENT INFORMATION REGARDING COMMERCIAL GROUNDWATER WELLS

Pacific Surveys

a full service geophysical well logging company

Video Survey Report

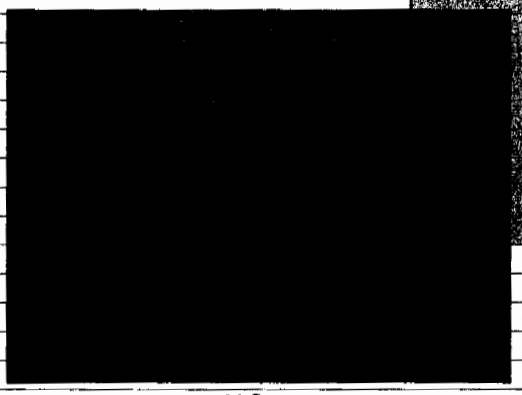
Company:	Ninyo & Moore		**Date:**	11-Oct-04	
Well:	Well #1		**Run No.**	One	**Truck** PS-3
Field:	Santa Fe Springs		**Job Ticket:**	11638	
State:	California		**Total Depth:**	139 ft	
			Water Level:	67 ft	
Location:	10806 Bloomfield Ave.		**Operator:**	Ridder	

Zero Datum: Top of CSG **Tool Zero:** Side-Scan

Reason for Survey: General Inspection

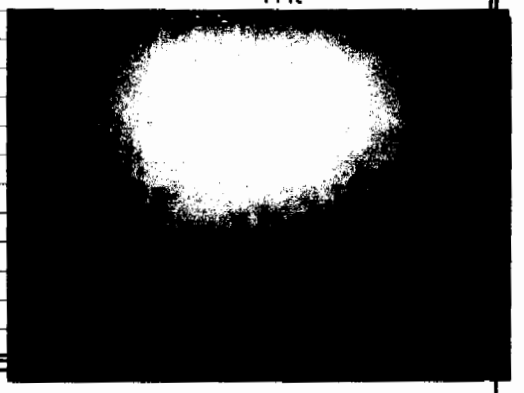
Depth	Remarks	Perforation:	
38.0 ft	Separated seam due to corrosion	N/A	
44.7 ft	Hole in casing		
48.0 ft	Damaged seam		
65.0 ft	Damaged seam: able to see formation		
67.3 ft	SWL: water very turbid, difficult to see down		
71.0 ft	Damage seam		
9.0 ft	Turbidity increases, difficult to see side of csg	**Casing Size**	
124.0 ft	Piece of debris in well: wood	12"	0.00 ft to N/A
129.0 ft	Turbidity increases, difficult to see side of csg		
136.0 ft	Difficult to see side of cog		
139.6 ft	Fill: end survey		

38 ft



44 ft

44 ft



No perforations were observed. Casing below SAL appeared in relatively good shape

Notes: **All depths are referenced to side-scan lens. Down view lens is 5" below side-scan.**

800.919.7555
909.625.6262

4456 via st. ambrose
claremont ca 91711
www.pacificsurveys.com

fax: 909.399.3180

October 12, 2004

Paul Roberts
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618
TEL: (949) 697-2198
FAX: (949) 753-7071

ELAP No.: 1838
NELAP No.: 02107CA
Workorder No.: 071364

RE: BLOOMFIELD II - CLEAN-OUT, 205372005

Attention: Paul Roberts

Enclosed are the results for sample(s) received on October 08, 2004 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

This cover letter is an integral part of this analytical report.

Advanced Technology Laboratories 3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *12-Oct-04*

CLIENT: Ninyo & Moore
Client Sample ID: GW-1
Lab Order: 071364
Collection Date: 10/7/2004 11:45:00 AM
Project: BLOOMFIELD II - CLEAN-OUT, 205372005
Lab ID: 071364-001
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC6_041011A	QC Batch: I04VW185			PrepDate:		Analyst: **JPC**
GRO	ND	0.20		mg/L	1	10/11/2004
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_041011A	QC Batch: A04VW250			PrepDate:		Analyst: **MFR**
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	1	10/11/2004
1,1,1-Trichloroethane	ND	5.0		µg/L	1	10/11/2004
1,1,2,2-Tetrachloroethane	ND	5.0		µg/L	1	10/11/2004
1,1,2-Trichloroethane	ND	5.0		µg/L	1	10/11/2004
1,1-Dichloroethane	ND	5.0		µg/L	1	10/11/2004
1,1-Dichloroethene	ND	5.0		µg/L	1	10/11/2004
1,1-Dichloropropene	ND	5.0		µg/L	1	10/11/2004
1,2,3-Trichlorobenzene	ND	5.0		µg/L	1	10/11/2004
1,2,3-Trichloropropane	ND	5.0		µg/L	1	10/11/2004
1,2,4-Trichlorobenzene	ND	5.0		µg/L	1	10/11/2004
1,2,4-Trimethylbenzene	ND	5.0		µg/L	1	10/11/2004
1,2-Dibromo-3-chloropropane	ND	5.0		µg/L	1	10/11/2004
1,2-Dibromoethane	ND	5.0		µg/L	1	10/11/2004
1,2-Dichlorobenzene	ND	5.0		µg/L	1	10/11/2004
1,2-Dichloroethane	ND	5.0		µg/L	1	10/11/2004
1,2-Dichloropropane	ND	5.0		µg/L	1	10/11/2004
1,3,5-Trimethylbenzene	ND	5.0		µg/L	1	10/11/2004
1,3-Dichlorobenzene	ND	5.0		µg/L	1	10/11/2004
1,3-Dichloropropane	ND	5.0		µg/L	1	10/11/2004
1,4-Dichlorobenzene	ND	5.0		µg/L	1	10/11/2004
2,2-Dichloropropane	ND	5.0		µg/L	1	10/11/2004
2-Chlorotoluene	ND	5.0		µg/L	1	10/11/2004
4-Chlorotoluene	ND	5.0		µg/L	1	10/11/2004
4-Isopropyltoluene	ND	5.0		µg/L	1	10/11/2004
Benzene	ND	5.0		µg/L	1	10/11/2004
Bromobenzene	ND	5.0		µg/L	1	10/11/2004
Bromodichloromethane	ND	5.0		µg/L	1	10/11/2004
Bromoform	ND	5.0		µg/L	1	10/11/2004
Bromomethane	ND	5.0		µg/L	1	10/11/2004
Carbon tetrachloride	ND	5.0		µg/L	1	10/11/2004
Chlorobenzene	ND	5.0		µg/L	1	10/11/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *12-Oct-04*

CLIENT: Ninyo & Moore
Client Sample ID: GW-1
Lab Order: 071364
Collection Date: 10/7/2004 11:45:00 AM
Project: BLOOMFIELD II - CLEAN-OUT, 205372005
Lab ID: 071364-001
Matrix: WATER

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS11_041011A	QC Batch: A04VW250			PrepDate:		Analyst: **MFR**
Chloroethane	ND	5.0		µg/L	1	10/11/2004
Chloroform	ND	5.0		µg/L	1	10/11/2004
Chloromethane	ND	5.0		µg/L	1	10/11/2004
cis-1,2-Dichloroethene	ND	5.0		µg/L	1	10/11/2004
Dibromochloromethane	ND	5.0		µg/L	1	10/11/2004
Dibromomethane	ND	5.0		µg/L	1	10/11/2004
Dichlorodifluoromethane	ND	5.0		µg/L	1	10/11/2004
Ethylbenzene	ND	5.0		µg/L	1	10/11/2004
Hexachlorobutadiene	ND	5.0		µg/L	1	10/11/2004
Isopropylbenzene	ND	5.0		µg/L	1	10/11/2004
m,p-Xylene	ND	10		µg/L	1	10/11/2004
Methylene chloride	ND	5.0		µg/L	1	10/11/2004
n-Butylbenzene	ND	5.0		µg/L	1	10/11/2004
n-Propylbenzene	ND	5.0		µg/L	1	10/11/2004
Naphthalene	ND	5.0		µg/L	1	10/11/2004
o-Xylene	ND	5.0		µg/L	1	10/11/2004
sec-Butylbenzene	ND	5.0		µg/L	1	10/11/2004
Styrene	ND	5.0		µg/L	1	10/11/2004
tert-Butylbenzene	ND	5.0		µg/L	1	10/11/2004
Tetrachloroethene	ND	5.0		µg/L	1	10/11/2004
Toluene	ND	5.0		µg/L	1	10/11/2004
trans-1,2-Dichloroethene	ND	5.0		µg/L	1	10/11/2004
Trichloroethene	ND	5.0		µg/L	1	10/11/2004
Trichlorofluoromethane	ND	5.0		µg/L	1	10/11/2004
Vinyl chloride	ND	5.0		µg/L	1	10/11/2004

Qualifiers:

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J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *12-Oct-04*

CLIENT: Ninyo & Moore
Work Order: 071364
Project: BLOOMFIELD II - CLEAN-OUT, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

Sample ID: **I101104MB1** SampType: **MBLK** TestCode: **8015_W_G P** Units: **mg/L** Prep Date: Run ID: **GC6_041011A**
Client ID: **ZZZZZ** Batch ID: **I04VW185** TestNo: **EPA 8015B(M** Analysis Date: **10/11/2004** SeqNo: **615844**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	111.8	0	100	0	112	69	126	0	0		

Sample ID: **I101104LC2** SampType: **LCS** TestCode: **8015_W_G P** Units: **mg/L** Prep Date: Run ID: **GC6_041011A**
Client ID: **ZZZZZ** Batch ID: **I04VW185** TestNo: **EPA 8015B(M** Analysis Date: **10/11/2004** SeqNo: **615970**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.923	0.20	1	0	92.3	70	125	0	0		
Surr: Bromofluorobenzene (FID)	112.6	0	100	0	113	69	126	0	0		

Sample ID: **I101104MB1MS** SampType: **MS** TestCode: **8015_W_G P** Units: **mg/L** Prep Date: Run ID: **GC6_041011A**
Client ID: **ZZZZZ** Batch ID: **I04VW185** TestNo: **EPA 8015B(M** Analysis Date: **10/11/2004** SeqNo: **615842**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.931	0.20	1	0.092	83.9	64	129	0	0		
Surr: Bromofluorobenzene (FID)	113	0	100	0	113	69	126	0	0		

Sample ID: **I101104MB1MSD** SampType: **MSD** TestCode: **8015_W_G P** Units: **mg/L** Prep Date: Run ID: **GC6_041011A**
Client ID: **ZZZZZ** Batch ID: **I04VW185** TestNo: **EPA 8015B(M** Analysis Date: **10/11/2004** SeqNo: **615843**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.923	0.20	1	0.092	83.1	64	129	0.931	0.863	30	
Surr: Bromofluorobenzene (FID)	112.8	0	100	0	113	69	126	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 071364
Project: BLOOMFIELD II - CLEAN-OUT, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP

Sample ID: **A101104MB2** SampType: **MBLK** TestCode: **8260_WP** Units: **µg/L** Prep Date: Run ID: **MS11_041011A**
Client ID: **ZZZZZ** Batch ID: **A04VW250** TestNo: **EPA 8260B** Analysis Date: **10/11/2004** SeqNo: **616437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	5.0									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
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Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 071364
Project: BLOOMFIELD II - CLEAN-OUT, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP

Sample ID: **A101104MB2** SampType: **MBLK** TestCode: **8260_WP** Units: **µg/L** Prep Date: Run ID: **MS11_041011A**
Client ID: **ZZZZZ** Batch ID: **A04VW250** TestNo: **EPA 8260B** Analysis Date: **10/11/2004** SeqNo: **616437**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									
Methylene chloride	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	58.5	5.0	50	0	117	64	138	0	0		
Surr: 4-Bromofluorobenzene	54.78	5.0	50	0	110	70	130	0	0		
Surr: Dibromofluoromethane	55.17	5.0	50	0	110	75	124	0	0		
Surr: Toluene-d8	54.59	5.0	50	0	109	75	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 071364
Project: BLOOMFIELD II - CLEAN-OUT, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP

Sample ID: **A101104LC1** SampType: **LCS** TestCode: **8260_WP** Units: **µg/L** Prep Date: Run ID: **MS11_041011A**
Client ID: **ZZZZZ** Batch ID: **A04VW250** TestNo: **EPA 8260B** Analysis Date: **10/11/2004** SeqNo: **616434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.51	5.0	20	0	108	63	147	0	0		
Benzene	22.45	5.0	20	0	112	77	125	0	0		
Chlorobenzene	21.09	5.0	20	0	105	69	126	0	0		
Toluene	21.95	5.0	20	0	110	76	122	0	0		
Trichloroethene	22.47	5.0	20	0	112	70	129	0	0		
Surr: 1,2-Dichloroethane-d4	56.59	5.0	50	0	113	64	138	0	0		
Surr: 4-Bromofluorobenzene	53.38	5.0	50	0	107	70	130	0	0		
Surr: Dibromofluoromethane	55.23	5.0	50	0	110	75	124	0	0		
Surr: Toluene-d8	56.27	5.0	50	0	113	75	130	0	0		

Sample ID: **A101104MB2MS** SampType: **MS** TestCode: **8260_WP** Units: **µg/L** Prep Date: Run ID: **MS11_041011A**
Client ID: **ZZZZZ** Batch ID: **A04VW250** TestNo: **EPA 8260B** Analysis Date: **10/11/2004** SeqNo: **616435**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.73	5.0	20	0	109	63	146	0	0		
Benzene	22.45	5.0	20	0	112	75	126	0	0		
Chlorobenzene	22.05	5.0	20	0	110	73	122	0	0		
Toluene	22.06	5.0	20	0	110	75	123	0	0		
Trichloroethene	22.11	5.0	20	0	111	68	129	0	0		
Surr: 1,2-Dichloroethane-d4	56.5	5.0	50	0	113	64	138	0	0		
Surr: 4-Bromofluorobenzene	55.23	5.0	50	0	110	70	130	0	0		
Surr: Dibromofluoromethane	55.55	5.0	50	0	111	75	124	0	0		
Surr: Toluene-d8	54.1	5.0	50	0	108	75	130	0	0		

Sample ID: **A101104MB2MSD** SampType: **MSD** TestCode: **8260_WP** Units: **µg/L** Prep Date: Run ID: **MS11_041011A**
Client ID: **ZZZZZ** Batch ID: **A04VW250** TestNo: **EPA 8260B** Analysis Date: **10/11/2004** SeqNo: **616436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.51	5.0	20	0	108	63	146	21.73	1.02	30	
Benzene	23.65	5.0	20	0	118	75	126	22.45	5.21	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 071364
Project: BLOOMFIELD II - CLEAN-OUT, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP

Sample ID: **A101104MB2MSD** SampType: **MSD** TestCode: **8260_WP** Units: **µg/L** Prep Date: Run ID: **MS11_041011A**
Client ID: **ZZZZZ** Batch ID: **A04VW250** TestNo: **EPA 8260B** Analysis Date: **10/11/2004** SeqNo: **616436**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	21.48	5.0	20	0	107	73	122	22.05	2.62	30	
Toluene	22.36	5.0	20	0	112	75	123	22.06	1.35	30	
Trichloroethene	22.87	5.0	20	0	114	68	129	22.11	3.38	30	
Surr: 1,2-Dichloroethane-d4	55.83	5.0	50	0	112	64	138	0	0	30	
Surr: 4-Bromofluorobenzene	52.71	5.0	50	0	105	70	130	0	0	30	
Surr: Dibromofluoromethane	54.56	5.0	50	0	109	75	124	0	0	30	
Surr: Toluene-d8	55.43	5.0	50	0	111	75	130	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

CHAIN OF CUSTODY RECORD

Pg 1 of 1

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: [signature] Date: 6/9/04 Time: _____

Method of Transport: Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☒

Sample Condition Upon Receipt:
1. CHILLED 5.7 Y☒ N☐
2. HEADSPACE (VOA) Y☒ N☐
3. CONTAINER INTACT Y☒ N☐
4. SEALED Y☐ N☒
5. # OF SPLS MATCH COC Y☐ N☒
6. PRESERVED Y☒ N☐

Client: Ninyo & Moore
Attn: PAUL ROBERTS
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip Code: 92618
TEL: (949) 753-7070
FAX: (949) 753-7071

Project Name: BLOOMFIELD II - CLEAN-OUT Project #: 205372005 Sampler: (Printed Name) RICHARD STEVENSON (Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (Signature and Printed Name)	Date	Time
[signature] RICHARD STEVENSON	10/8/04	950	[signature]	10/8/04	10:45A
[signature]	10/8/04	2:00	[signature]	10/8/04	1498
[signature]	10/8/04	1500	[signature]	6/9/04	[illegible]

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
RICHARD STEVENSON 10/7/04
Print Name Date
[signature]
Signature

Send Report To:
Attn: SAME AS CLIENT
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: SAME AS CLIENT
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other _____
☐ Return To: _____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	071364 - 001	GW-1	10/7/04	11:45		X			X				X					E	2	VG	H	

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

October 13, 2004
Project No. 205372004

Mr. Jim Detchmendy
Los Angeles County Department of Health Services
Mountain and Rural Program
5050 Commerce Drive
Baldwin Park, California 91706

Subject: Transmittal of Well Decommissioning Permits
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Detchmendy:

This letter transmits the well decommissioning permits for two groundwater wells discovered during grading activities at the above-referenced property ("site"). The letter also documents the clean-out and video logging activities requested by you in a telephone conversation on September 27, 2004. Based on these results and site history, the wells are believed to have been constructed in the early-1900s and may have been associated with historical commercial activities on the site. Below is a summary of the events completed to-date associated with these wells, the results of our clean-out activities, and our proposed decommissioning operations.

- Groundwater wells, designated GW-1 and GW-2 by Ninyo & Moore, were discovered on September 24, 2004 during grading activities associated with the redevelopment of the site (Figure 1).
- Groundwater well GW-1 was constructed of 12-inch steel casing and well GW-2 was constructed of 16-inch diameter steel casing.
- On September 27, 2004, Ninyo & Moore visited the site and measured groundwater in well GW-1 at a depth of approximately 94 feet below the ground surface (bgs). The total depth of this well was measured at approximately 143 feet bgs. Well GW-2 was covered with soil during the site visit, and therefore, measurements could not be made.

- Based on the telephone conversation on September 29, 2004 between Mr. Jim Detchmendy of the Los Angeles County Department of Health Services (DOHS) and Mr. Paul Roberts of Ninyo & Moore, Ninyo & Moore attempted to clean out the wells on October 7, 2004 and video log the well casings on October 11, 2004.

- On October 7, 2004, Ninyo & Moore retained West Hazmat Drilling, a C-57 licensed drilling contractor to clean out the wells. Well GW-1 was jetted with clean water and subsequently bailed to remove the murky water. The total depth of the well was discovered to be approximately 160 feet bgs. More clean water was placed in the well to in an attempt to force the remaining murky water out of the perforated casing and into the surrounding lithology. Bailed groundwater was containerized in 55-gallon drums and left on-site. One sample was collected from these materials and analyzed for total petroleum hydrocarbons as gasoline (TPHg) and volatile organic compounds (VOCs) in general accordance with EPA Method Nos. 8015 (modified) and 8260B. Laboratory results indicated no detectable concentrations. Based on these results, the purged groundwater will be dumped on site.

- The casing associated with well GW-2 had broken off at a depth of approximately 6 feet bgs. Contractors at the site prepared a metal housing around the well to extend the well casing to ground surface. A dill rig equipped with 6-inch hollow stem augers (HSAs) was used to drill out the well. Soil cuttings generated from approximately 6 to 157 feet bgs consisted of a gray, fine sand with minor amounts of fine gravel. From approximately 157 to 190, the soil consisted of a gray clay. The bottom of the casing was assessed at 190 feet bgs. For safety reasons, the well was backfilled with the soil cuttings. In summary, it appears that the total depth of the well is 190 feet bgs; had "silted up" from 157 to 190 (producing the clay materials); and was backfilled with a fine sand from surface to approximately 157 feet bgs.

- On October 11, 2004, Ninyo & Moore retained Pacific Surveys to video log the casing of well GW-1. As noted on the attached information, the total depth of the well was measured at approximately 140 feet bgs; the casing had "silted up." As noted on the enclosed video, the casing was constructed with a crimped seam, was damaged in many locations, and contained pieces of debris (i.e., wood at 124 feet).

- Ninyo & Moore contacted Mr. Detchmendy to discuss the above results and abandonment activities. According to Mr. Detchmendy, the wells should be abandoned in general accordance with the Requirements for Well Construction/Decommissioning presented by the DOHS. Based on these requirements, Ninyo & Moore will clean-out/drill-out the upper 150 feet of materials in the wells using 12-inch HSAs and/or bailing/jetting equipment. The casing from surface to 150 feet bgs will be perforated using a Mills Knife or equivalent equipment, following which, a neat cement will be tremied into the casing. A pressure will then be applied, and the casing will be cut at approximately 5 feet bgs. The concrete will be allowed to mushroom over the well casing.

Please review the enclosed video and other documentations. If you have any questions or comments regarding this letter or the permit application, please contact the undersigned at your convenience.

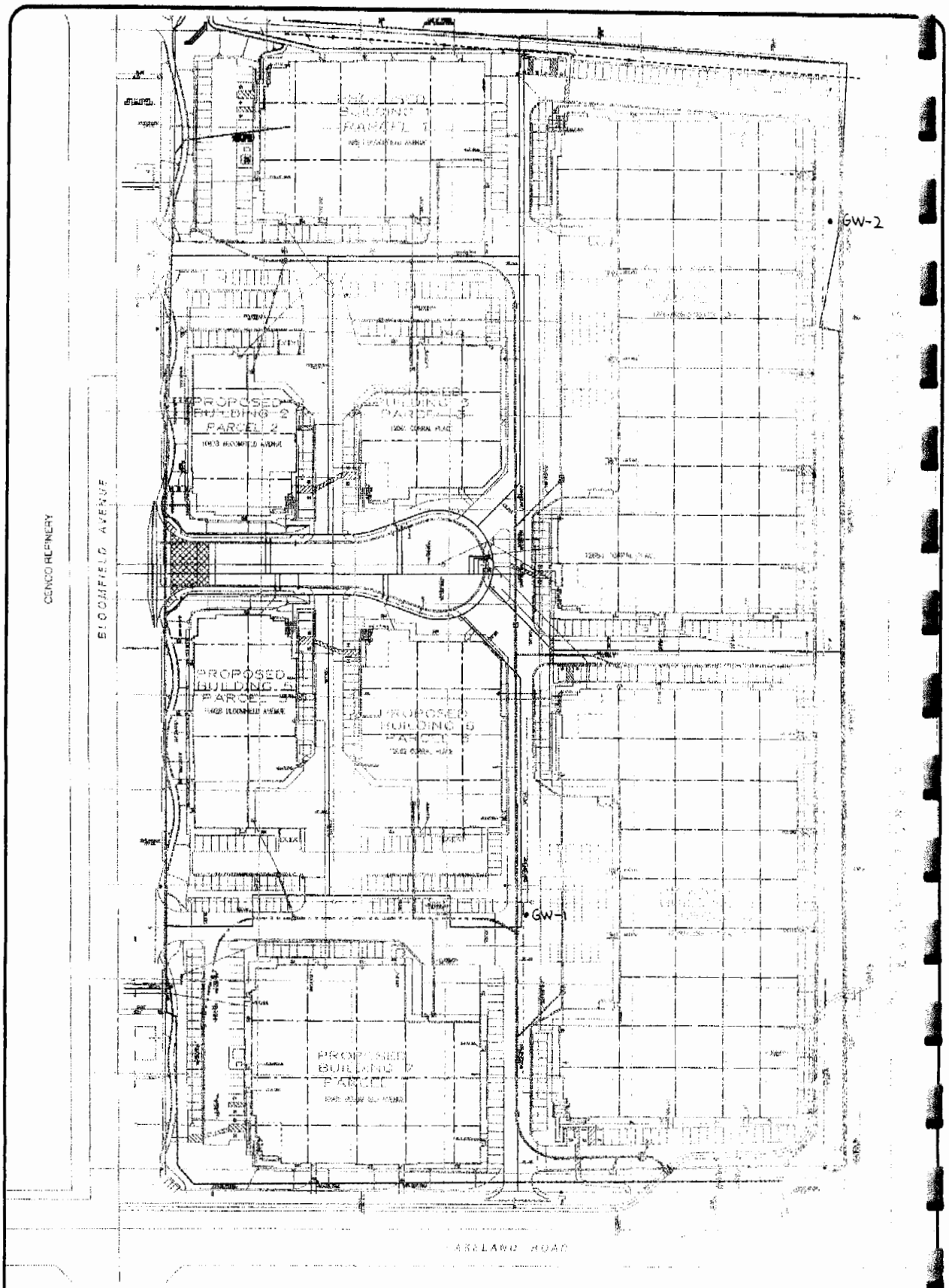
Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR

Attachments: Figure 1 – Site Plan
Well Decommissioning Permit Application
Video Log
Video Survey Report

Distribution: (1) Addressee



NOTES

1. BASE MAP PROVIDED BY BLOOMFIELD PARTNER II, LLC.
2. ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

HYDRANT
LOT LINE
FENCE

0 100
APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE PLAN

BLOOMFIELD II PROPERTY
FORMERLY 10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372004	9/2004	1

205372-B1.DWG

December 16, 2004
Project No. 205372004

Mr. Michael Lui
Los Angeles County Department of Health Services
Mountain and Rural Program
5050 Commerce Drive
Baldwin Park, California 91706

FAR

Subject: Documentation of Telephone Conversation
Well Decommissioning
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Lui:

This letter documents our telephone conversation on November 19, 2004, regarding the decommissioning of two commercial groundwater wells (designated GW-1 and GW-2) discovered during grading activities at the above-referenced property ("site"). This letter presents an alternative abandonment procedure and amends the well permits sent to you on October 13, 2004.

As presented in the groundwater well permits, monitoring well GW-1 was discovered to be constructed of a 12-inch-diameter steel casing with a total depth of approximately 160 feet below the ground surface (bgs). This well was assessed to have "silted-up" to a depth of approximately 140 feet. A video log showed the casing to be damaged and old (pre-1940s). Monitoring well GW-2 was constructed of a 16-inch steel casing with a total depth of approximately 190 feet bgs. This well was discovered to have "silted-up" from approximately 157 to 190 feet, and was full of fine sand from surface to approximately 157 feet bgs.

Based on these findings, Ninyo & Moore has discussed the construction details and proposed abandonment procedures with a number of drilling companies. Based on the age of the wells and damaged casing condition, perforating the casing using a Mills Knife or equivalent perforating equipment was assessed to be very difficult and costly, and could possibly damage surrounding buildings (e.g., the load noise produced by a wire-line method could break windows). Based on

this information, Ninyo & Moore proposed the following abandonment procedures to you in our telephone conversation on November 19, 2004. This letter documents our conversation and your verbal approval of these methods.

Ninyo & Moore will abandon the wells by cleaning out excess soil to a depth of approximately 150 feet bgs, or to the deepest point possible (whichever is most) using air rotary drilling procedures. Neat cement will then be tremied into the casing. A pressure will then be applied, and the casing will be cut at approximately 5 feet bgs. As we discussed, Ninyo & Moore will not perforate the wells prior to the abandonment activities.

The abandonment procedure described herein should adequately destroy the wells and provide protection to the underlying groundwater. These procedures were based on our professional experience and discussions with licensed drilling contractors and are based on the following:

- Based on the age of the wells, the casings were most likely pile-driven using no filter pack.
- As part of the real estate due diligence process, numerous environmental investigations and some soil remediation have been completed at the site under the direction and oversight of the Regional Water Quality Control Board, Los Angeles Region (RWQCB). Following these activities, the RWQCB issued a no further action (NFA) letter dated April 15, 2004. A copy of the letter is attached.
- The site is currently being redeveloped for warehouse/distribution purposes and the wells will be located under an asphalt capped parking lot.
- Groundwater has been measured at depths of approximately 100 feet bgs.

Due to your vacation schedule, Ninyo & Moore has scheduled the abandonment procedures for January 12 and 13, 2005. Ninyo & Moore will contact you in January to remind you of our schedule.

If you have any questions or comments regarding this letter, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR/emp

Attachment: RWQCB No Further Action Letter, dated April 15, 2004

Distribution: (1) Addressee

California Regional Water Quality Control Board

Los Angeles Region

Over 51 Years Serving Coastal Los Angeles and Ventura Counties
Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Terry Tamminen
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Mr. Lowell Morse	From D. Bachowski
Co. Cenco	Co. RWQCB-LAR
Dept.	Phone # (213) 576-6607
Fax # (562) 903-8911	Fax #

April 15, 2004

Mr. Michael Barranco
CENCO Refining Company
12345 Lakeland Road
Santa Fe Springs, CA 90670

NO FURTHER ACTION – FORMER OIL FIELD AND REFINERY PROPERTY-BLOOMFIELD PROPERTY – CENCO REFINERY – 12345 LAKELAND ROAD, SANTA FE SPRINGS (SLIC NO. 318, SITE ID 2040071)

Dear Mr. Barranco:

Thank you for the Closure Report dated December 2003, for the Bloomfield property. Soil investigations and remedial activities was conducted at the property from 1985 to December 2004 to characterize and remediate the source of total petroleum hydrocarbons (TPH), and benzene, toluene, ethylbenzene, and xylenes (BTEX), and volatile organic compounds (VOCs) resulting from historical oilfield production and refinery activities.

Prior to the remediation work, soil analytical results detected the presence of TPH as gasoline (ranging from below detection limits to 653 milligrams per kilogram (mg/kg), TPH as diesel (ranging from below detection limits to 9,760 mg/kg), TPH as motor oil (ranging from below detection limits to 25,000 mg/kg), benzene (ranging from below detection limits to 0.022 mg/kg), toluene (ranging from below detection limits to 0.098 mg/kg), ethylbenzene (ranging from below detection limits to 0.160 mg/kg), and xylenes (ranging from below detection limits to 0.025 mg/kg). Approximately 3,405 tons of impacted soil were excavated from identified areas and transported offsite. The onsite residual contaminants left in place consisted of minor isolated elevated concentrations of methyl tertiary butyl ether (MTBE), Naphthalene, and tertiary butyl alcohol (TBA).

Based upon the information submitted, the Regional Board has no further requirements with respect to soils and groundwater at the site. The residual VOC contaminants are localized, limited in mass and extent, and are expected to naturally attenuate through the biodegradable nature of petroleum based hydrocarbons over time. All other contaminants were below the site specific cleanup levels established by the Regional Board's 1996 Interim Site Assessment and Cleanup Guidebook, and the U.S. EPA Region IX preliminary remediation goals (PRG) levels for human health protection.

Groundwater is encountered at approximately 88 to 105 feet below ground surface (bgs). Three groundwater-monitoring wells are located on the property and have been used to provide site-wide representative information on groundwater quality. Groundwater analytical testing results indicated TPH, fuel oxygenate, and VOCs during monitoring events. One on-site monitoring well had a recent detection of benzene at 1,400 micrograms per liter. The source on the benzene is attributed to an offsite

source that will be managed under Regional Board authority. The groundwater test results and recent soil gas analysis were used to complete a residential scenario human health risk assessment for the site and it was determined that there was no unacceptable exposure potential. The resulting low groundwater concentrations indicate that historical activities at the site have not significantly impacted groundwater quality at this site.

A site-wide risk assessment was performed utilizing the available analytical data from the site, under a residential use scenario. The risk-assessment report was submitted to Cal EPA Office of Environmental Health Hazard Assessment (OEHHA). Approval was received from OEHHA in April 2004.

This determination of no further action for soils and groundwater is based on available information and the provision that the information provided to this agency was accurate and representative of site conditions. Please contact the Regional Board immediately, if additional soil and groundwater contamination is discovered during any future development activities. Future soil cleanup may be required as warranted by redevelopment or change of land use proposed at the site.

A Soils Management Plan (SMP) must be submitted to the Santa Fe Springs Fire Department and approved before any grading activities are conducted on the site. The elements of SMP must be fulfilled during site grading. Please be advised that a final SMP report must be submitted and approved by the Santa Fe Springs Fire Department before a building permit can be issued for the site.

Please contact J. T. Liu at (213) 576-6667 or Mr. Steven Hariri at (213) 576-6745, if you have any questions regarding this matter.

Sincerely,

Dennis A. Dickerson
Executive Officer

cc: Barry Molnaa, Arcadis
Andy Lazzaretto, City of Santa Fe Springs

February 18, 2005
Project No. 205372004

Mr. Michael Lui
Los Angeles County Department of Health Services
Mountain and Rural Program
5050 Commerce Drive
Baldwin Park, California 91706

Subject: Documentation of Commercial Well Decommissioning
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Lui:

This letter documents the destruction of two commercial groundwater wells, designated by Ninyo & Moore as GW-1 and GW-2, discovered during grading activities at 10806 Bloomfield Avenue in the city of Santa Fe Springs, California (site, Figures 1 and 2). The site is located on the east side of Bloomfield Avenue, between Lakeland Road and Florence Avenue. Work was conducted in general accordance with the contract dated September 28, 2004, between Bloomfield Partners II, LLC, and Ninyo and Moore. Work was completed in accordance with the County of Los Angeles, Department of Health Services (DOHS) permit No. 340870 (Attachment A).

Following receipt of the approved destruction permits, Ninyo & Moore completed a preliminary investigation of the wells to further assess the construction details. These investigations included assessing the depth of the wells, purging groundwater and attempting to "clean" well GW-1, and video logging well GW-1. The results of these investigations were presented in a letter report to the DOHS dated October 13, 2004 (Attachment B).

Commercial groundwater well GW-1 was discovered to be constructed of a 12-inch-diameter steel casing with a total depth of approximately 160 feet below the ground surface (bgs). The well was assessed to have "silted-up" to a depth of approximately 140 feet. A video log showed

the casing to be damaged and old (pre-1940's). Monitoring well GW-2 was constructed of a 16-inch steel casing with a total depth of approximately 190 feet bgs. This well was discovered to have "silted-up" from approximately 157 to 190 feet, and was full of fine sand from surface to approximately 157 bgs. Due to the thickness of the casing, well GW-2 was also assumed to be pre-1940 in age.

Based on the age and condition of the wells, perforating the casing using a Mills Knife or equivalent perforating equipment was assessed to be very difficult and costly. Ninyo & Moore proposed alternative abandonment procedures to you in our telephone conversation on November 19, 2004. The telephone conversation and approved abandonment procedures were documented in a letter dated November 19, 2004 (Attachment B).

Ninyo & Moore retained West HAZMAT Drilling Corporation of Anaheim, California, a state-licensed C-57 drilling company, to destruct the groundwater wells. Work was conducted under the direction and oversight of a California Professional Geologist from Ninyo & Moore, and Mr. Michael Lui of the DOHS.

Both wells were abandoned on January 25 and 26, 2005. Hollow stem auger was used to "clean out" the sand and silt in both well casings to depths of the approximately 150 feet bgs. Soils removed from the casings in both wells were monitored for volatile organic compounds (VOCs) using a photoionization detector (PID) calibrated to hexane. No petroleum hydrocarbon odors, staining, and low PID readings (less than 1 part per million [ppm]) were reported from the soils removed from the casing of well GW-1. Some stained and odorous soil was detected in the sand materials removed from the casing of well GW-2 and was segregated. Although PID readings from these materials were relatively low (between 15 and 72 ppm), these soils were stockpiled in another area of the site and will be disposed of at an off-site facility.

The hollow-stem auger was used to tremie the cement slurry into well casings. Rather than applied pressure during cement placement, the head of the cement volume was determined to exert sufficient pressure to displace water and allow the cement slurry to penetrate the casing perforations. The slurry was continuously placed within the casings until it reached approximately

10 feet bgs. The cement was allowed to settle while a backhoe excavated around the well casings to a depth of approximately 8 feet bgs. The well casings were cut at approximately 5 feet below the ground surface and then topped with more cement and allowed to "mushroom" within the excavations and around the remaining casings.

Approximately 12 and 13.5 cubic yards of cement were used to destruct wells GW-1 and GW-2, respectively. After the wells were given the opportunity to settle, the excavations were backfilled and compacted on January 31, 2005, as part of the overall grading activities that were being conducted at the site. Copies of the concrete field tickets are included in Attachment C. Photographs documenting the abandonment procedures are provided in Attachment D.

If you have any questions or comments regarding this letter, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

PROFESSIONAL GEOLOGIST
PAUL A. ROBERTS
NO. 6897
EXP. 1-06
STATE OF CALIFORNIA

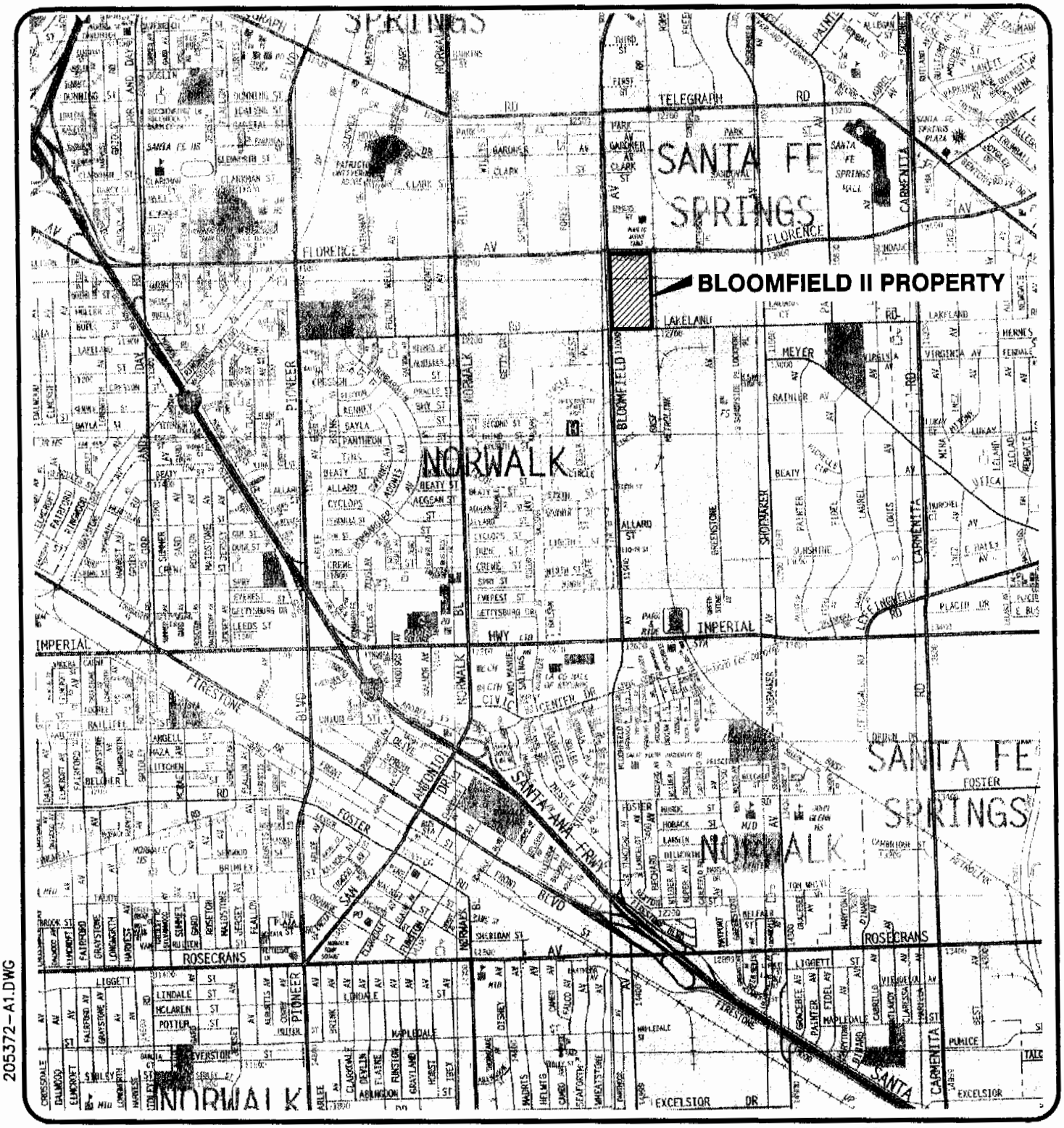
Darren P. Burgett
Senior Staff Environmental Scientist

Paul A. Roberts, P.G., R.E.A. I/II
Senior Environmental Geologist

DPB/PAR/emp

Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan
Attachment A – Copy of Well Destruction Permit
Attachment B – Copies of Letter/Reports
Attachment C – Copies of Field Concrete Tickets
Attachment D – Photographic Documentation

Distribution: (1) Addressee
(1) Mr. Peter Rooney, Bloomfield Partners II, LLC
(1) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory, LLP



205372-A1.DWG

REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372004	2/2005	1

UNLIMITED REPROGRAPHICS

Downtown L.A.
444 S. Flower St.
Suite 250
Los Angeles, CA 90071
Tel.: 213.892.9000
Fax: 213.892.9010

Century City
1880 Century Park East
Suite 209
Los Angeles, CA 90067
Tel.: 310.282.0202
Fax: 310.282.0209

Long Beach
200 Oceangate
Suite 820
Long Beach, CA 90802
Tel.: 562.491.4600
Fax: 562.491.0045

Job Number: 78818 090988

Firm Name: Yee & Belilove
Address:
Phone
Order By: Karen Khazen
Client Matter #: Carpenter V. Eclipse

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STANDARD LANGUAGE	☐	☐	☐
SLIP SHEETS	☐	☐	☐ AS ORIGINAL

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☐	☐	Velo Bind	☐ Top	☐ Side	☐ Covers
☐	☐	GBC Bind	☐ Top	☐ Side	☐ Covers
☐	☐	Acco Bind	☐ Top	☐ Side	☐ Covers

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Special Instructions

1. ON:site: Friday Morning @ 10:00 AM 9-11-09
2. Location: 129 East Linden Ave. Burbank, CA. 91502
3. Copy Documents regarding Weekend Warrior.
4. Approx. 138 Boxes

Client Signature Account Manager/CSR JEFF Graham

ATTACHMENT A

COPY OF WELL DESTRUCTION PERMIT

WELL PERMIT APPLICATION - PRODUCTION WELLS

WATER & SEWAGE / MOUNTAIN & RURAL PROGRAMS - ENVIRONMENTAL HEALTH DIVISION
5050 COMMERCE DRIVE, BALDWIN PARK, CA 91706 (626) 430 - 5380 FAX (626) 813 - 3016

DATE: 9-28-04

☐ NEW WELL CONSTRUCTION	☐ PRIVATE DOMESTIC ☐ PUBLIC DOMESTIC
☐ RECONSTRUCTION OR RENOVATION	☐ IRRIGATION ☐ Small System
☒ DECOMMISSIONING	☒ INDUSTRIAL ☐ Large System
☐ OTHER:	☐ GRAVEL PACK ☐ Other :

WELL LOCATION

SITE ADDRESS	CITY	ZIP CODE
10806 Bloomfield Ave.	Santa Fe Springs	90670

Township	Range	Section	Map Book Page/ Grid
35	11W	5	707/A6

GPS LOCATION : (To be completed after the final seal) Surveyed as per attached map GW-1/GW-2

WELL STRUCTURE

Type and Size of Production Casing	GW-1 = 12inch GW-2= 16inch
Sanitary / Annular Sealing Material	Unknown W.T. 68½
Depth of Sanitary / Annular Seal	Unknown
Conductor Casing Seal	Unknown

CONSULTANT

Company	Ninyo & Moore
Contact Person	Paul Roberts
Address	475 Goddard, Suite 200
City , State Zip	Irvine, CA 92618
Telephone	949-753-7070

OWNER / DRILLER INFORMATION

Well Owner	Bloomfield Partners II, LLC
Address	18802 Bardeen Ave
City / Zip Code	Irvine 92612
Telephone	949-756-5959
Well Driller	West Hazmat Drilling
Address	1016 E. Katella Ave.
City / Zip Code	Anzheim, 92805
C-57 License No.	819548
Telephone	714-939-6850

IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED IN THE FIELD ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THIS OFFICE, WORK PLAN MODIFICATIONS MAY BE REQUIRED

WELL DECOMMISSIONING

Well Depth ☒ log / records	GW-1 = ~~160~~ 145' GW-2= 190
Method of Well Assessment	Field measurement/videolog
Depth and Number of Perforations	Unknown
Type of Perforator Size of Perforations	Unknown 50' Mills Knife
Type and Amount of Sealant	Neat cement
Method of Upper Seal Pressure Application	Drill rig

DISPOSITION OF PERMIT (Department Use Only)

THIS PERMIT IS CONSIDERED COMPLETE WHEN THE WORK PLAN IS APPROVED, A FINAL INSPECTION CONDUCTED BY THIS DEPARTMENT, AND THE RECEIPT OF A WELL COMPLETION LOG. NO WELL CONSTRUCTION OR DECOMMISSIONING CAN BE INITIATED WITHOUT THE WORK PLAN APPROVAL FROM THIS DEPARTMENT.

WORK PLAN APPROVAL
This Approval is Valid for 180 Days

Date 1/25/05 REHS Michael Lin

Conditions

DECOMMISSIONING STARTED ON TUESDAY 1/25/05

THE PLACEMENT OF THE ANNULAR SEAL MUST BE WITNESSED BY THIS DEPARTMENT. CONTACT THIS OFFICE AND ARRANGE FOR AN APPOINTMENT.

FINAL INSPECTION
Annular seal or final decommissioning seal witnessed

Date 1/26/05 REHS Michael Lin

PERMIT ISSUED #340870
The well log must be submitted to this Department prior to issuance of the final approval

Date 10/18/04 REHS Michael Lin

THE COMPLETED WELL MUST BE PROPERLY DISINFECTED AND MEET BACTERIOLOGICAL STANDARDS PRIOR TO USE

WATER QUALITY
The water from the well must meet bacteriological standards prior to domestic use

Date REHS

I hereby agree to comply in every respect with all the regulations of the County Environmental Health Division and with all ordinances and laws of the County of Los Angeles and the State of California pertaining to well construction, reconstruction and decommissioning. Upon completion of the well and within thirty days thereafter, I will furnish the Environmental Health office with a completion log of the well giving date drilled, depth of the well, perforations in the casing, and any other data deemed necessary by County Environmental Health Division.

Paul Roberts
Applicant's Signature

Applicant Name: (PRINT)
Telephone:

76A668-A
I-13 (Rev. 10/2000)

ATTACHMENT B

COPIES OF LETTER/REPORTS

October 13, 2004
Project No. 205372004

Mr. Jim Detchmendy
Los Angeles County Department of Health Services
Mountain and Rural Program
5050 Commerce Drive
Baldwin Park, California 91706

Subject: Transmittal of Well Decommissioning Permits
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Detchmendy:

This letter transmits the well decommissioning permits for two groundwater wells discovered during grading activities at the above-referenced property ("site"). The letter also documents the clean-out and video logging activities requested by you in a telephone conversation on September 27, 2004. Based on these results and site history, the wells are believed to have been constructed in the early-1900s and may have been associated with historical commercial activities on the site. Below is a summary of the events completed to-date associated with these wells, the results of our clean-out activities, and our proposed decommissioning operations.

- Groundwater wells, designated GW-1 and GW-2 by Ninyo & Moore, were discovered on September 24, 2004 during grading activities associated with the redevelopment of the site (Figure 1).
- Groundwater well GW-1 was constructed of 12-inch steel casing and well GW-2 was constructed of 16-inch diameter steel casing.
- On September 27, 2004, Ninyo & Moore visited the site and measured groundwater in well GW-1 at a depth of approximately 94 feet below the ground surface (bgs). The total depth of this well was measured at approximately 143 feet bgs. Well GW-2 was covered with soil during the site visit, and therefore, measurements could not be made.

- Based on the telephone conversation on September 29, 2004 between Mr. Jim Detchmendy of the Los Angeles County Department of Health Services (DOHS) and Mr. Paul Roberts of Ninyo & Moore, Ninyo & Moore attempted to clean out the wells on October 7, 2004 and video log the well casings on October 11, 2004.

- On October 7, 2004, Ninyo & Moore retained West Hazmat Drilling, a C-57 licensed drilling contractor to clean out the wells. Well GW-1 was jetted with clean water and subsequently bailed to remove the murky water. The total depth of the well was discovered to be approximately 160 feet bgs. More clean water was placed in the well to in an attempt to force the remaining murky water out of the perforated casing and into the surrounding lithology. Bailed groundwater was containerized in 55-gallon drums and left on-site. One sample was collected from these materials and analyzed for total petroleum hydrocarbons as gasoline (TPHg) and volatile organic compounds (VOCs) in general accordance with EPA Method Nos. 8015 (modified) and 8260B. Laboratory results indicated no detectable concentrations. Based on these results, the purged groundwater will be dumped on site.

- The casing associated with well GW-2 had broken off at a depth of approximately 6 feet bgs. Contractors at the site prepared a metal housing around the well to extend the well casing to ground surface. A dill rig equipped with 6-inch hollow stem augers (HSAs) was used to drill out the well. Soil cuttings generated from approximately 6 to 157 feet bgs consisted of a gray, fine sand with minor amounts of fine gravel. From approximately 157 to 190, the soil consisted of a gray clay. The bottom of the casing was assessed at 190 feet bgs. For safety reasons, the well was backfilled with the soil cuttings. In summary, it appears that the total depth of the well is 190 feet bgs; had "silted up" from 157 to 190 (producing the clay materials); and was backfilled with a fine sand from surface to approximately 157 feet bgs.

- On October 11, 2004, Ninyo & Moore retained Pacific Surveys to video log the casing of well GW-1. As noted on the attached information, the total depth of the well was measured at approximately 140 feet bgs; the casing had "silted up." As noted on the enclosed video, the casing was constructed with a crimped seam, was damaged in many locations, and contained pieces of debris (i.e., wood at 124 feet).

- Ninyo & Moore contacted Mr. Detchmendy to discuss the above results and abandonment activities. According to Mr. Detchmendy, the wells should be abandoned in general accordance with the Requirements for Well Construction/Decommissioning presented by the DOHS. Based on these requirements, Ninyo & Moore will clean-out/drill-out the upper 150 feet of materials in the wells using 12-inch HSAs and/or bailing/jetting equipment. The casing from surface to 150 feet bgs will be perforated using a Mills Knife or equivalent equipment, following which, a neat cement will be tremied into the casing. A pressure will then be applied, and the casing will be cut at approximately 5 feet bgs. The concrete will be allowed to mushroom over the well casing.

UNLIMITED REPROGRAPHICS

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Los Angeles, CA 90071
Tel.: 213.892.9000
Fax: 213.892.9010

Century City
1880 Century Park East
Suite 209
Los Angeles, CA 90067
Tel.: 310.282.0202
Fax: 310.282.0209

Long Beach
200 Oceangate
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Long Beach, CA 90802
Tel.: 562.491.4600
Fax: 562.491.0045

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Phone
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Client Matter #: Carpenter V. Eclipse

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STANDARD LANGUAGE	☐	☐	☐
SLIP SHEETS	☐	☐	☐ AS ORIGINAL

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☐	☐	Velo Bind	☐ Top	☐ Side	☐ Covers
☐	☐	GBC Bind	☐ Top	☐ Side	☐ Covers
☐	☐	Acco Bind	☐ Top	☐ Side	☐ Covers

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- Tabs ☐ Side ☐ Bottom ☐ Alpha ☐ Number ☐ w/ Exhibit

Bates Labeling

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Prefix Sequence Start ☐ Space ☐ Other

Special Instructions

1. ON:site: Friday Morning @ 10:00 AM 9-11-09
2. Locations: 129 EAST LINDEN Ave. Burbank, CA. 91502
3. Copy Documents regarding Weekend Warrior.
4. Approx. 138 Boxes

Client Signature Account Manager/CSR JEFF Graham

6367

NINYO & MOORE
475 GODDARD, SUITE 200
IRVINE, CA 92618
949-753-7070

16-24 / 1220 4462

DATE 9/28/04

PAY TO THE ORDER OF Los Angeles Co. Dept. of Health Services — $ 548.00

Five Hundred - Forty Eight & NO/100 — DOLLARS

RJT. 205372004

WELLS FARGO
Wells Fargo Bank, N.A.
California
wellsfargo.com

FOR Well Destruction Permits

⑈006367⑈ ⑆122000247⑆0808489108⑈

WELL PERMIT APPLICATION - PRODUCTION WELLS

WATER & SEWAGE / MOUNTAIN & RURAL PROGRAMS - ENVIRONMENTAL HEALTH DIVISION
5050 COMMERCE DRIVE, BALDWIN PARK, CA 91706 (626) 430 - 5380 FAX (626) 813 - 3016

DATE: 9-28-04

☐ NEW WELL CONSTRUCTION ☐ RECONSTRUCTION OR RENOVATION ☒ DECOMMISSIONING ☐ OTHER:	☐ PRIVATE DOMESTIC ☐ PUBLIC DOMESTIC ☐ IRRIGATION ☐ Small System ☒ INDUSTRIAL ☐ Large System ☐ GRAVEL PACK ☐ Other :

WELL LOCATION

SITE ADDRESS	CITY	ZIP CODE
10806 Bloomfield Ave.	Santa Fe Springs	90670

Township	Range	Section	Map Book Page/ Grid
35	11W	5	707/A6

GPS LOCATION : (To be completed after the final seal) Surveyed as per attached map GW-1/GW-2

WELL STRUCTURE

Type and Size of Production Casing	GW-1 = 12inch GW-2 = 16inch
Sanitary / Annular Sealing Material	Unknown
Depth of Sanitary / Annular Seal	Unknown
Conductor Casing Seal	Unknown

CONSULTANT

Company	Ninyo & Moore
Contact Person	Paul Roberts
Address	475 Goddard, Suite 200
City , State Zip	Irvine, CA 92618
Telephone	949-753-7070

OWNER / DRILLER INFORMATION

Well Owner	Bloomfield Partners II, LLC
Address	18802 Bardeen Ave
City / Zip Code	Irvine 92612
Telephone	949-756-5959
Well Driller	West Hazmat Drilling
Address	1016 E. Katella Ave.
City / Zip Code	Anzheim, 92805
C-57 License No.	819548
Telephone	714-939-6850

IF WELL AND GEOLOGIC CONDITIONS ENCOUNTERED IN THE FIELD ARE FOUND TO DIFFER FROM THE SCOPE OF WORK PRESENTED TO THIS OFFICE, WORK PLAN MODIFICATIONS MAY BE REQUIRED

WELL DECOMMISSIONING

Well Depth & log / records	GW-1 = 160 GW-2 = 190
Method of Well Assessment	Field measurement/videolog
Depth and Number of Perforations	Unknown
Type of Perforator Size of Perforations	0 to 150' Mills Knife
Type and Amount of Sealant	Neat cement
Method of Upper Seal Pressure Application	Drill rig

DISPOSITION OF PERMIT (Department Use Only)

THIS PERMIT IS CONSIDERED COMPLETE WHEN THE WORK PLAN IS APPROVED, A FINAL INSPECTION CONDUCTED BY THIS DEPARTMENT, AND THE RECEIPT OF A WELL COMPLETION LOG. NO WELL CONSTRUCTION OR DECOMMISSIONING CAN BE INITIATED WITHOUT THE WORK PLAN APPROVAL FROM THIS DEPARTMENT.

WORK PLAN APPROVAL
This Approval is Valid for 180 Days

Date	REHS
Conditions	

THE PLACEMENT OF THE ANNULAR SEAL MUST BE WITNESSED BY THIS DEPARTMENT. CONTACT THIS OFFICE AND ARRANGE FOR AN APPOINTMENT.

FINAL INSPECTION
Annular seal or final decommissioning seal witnessed

Date	REHS

PERMIT ISSUED
The well log must be submitted to this Department prior to issuance of the final approval

Date	REHS

I hereby agree to comply in every respect with all the regulations of the County Environmental Health Division and with all ordinances and laws of the County of Los Angeles and the State of California pertaining to well construction, reconstruction and decommissioning. Upon completion of the well and within thirty days thereafter, I will furnish the Environmental Health office with a completion log of the well giving date drilled, depth of the well, perforations in the casing, and any other data deemed necessary by County Environmental Health Division.

Paul Roberts
Applicant's Signature

Applicant Name: (PRINT)
Telephone:

THE COMPLETED WELL MUST BE PROPERLY DISINFECTED AND MEET BACTERIOLOGICAL STANDARDS PRIOR TO USE

WATER QUALITY
The water from the well must meet bacteriological standards prior to domestic use

Date	REHS

A668-A
13 (Rev. 10/2000)

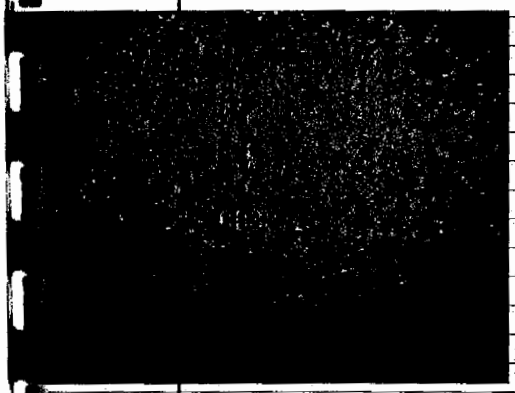
Pacific Surveys

a full service geophysical well logging company

Video Survey Report

Company:	Ninyo & Moore		**Date:**	11-Oct-04	
Well:	Well #1		**Run No.**	One	**Truck** PS-3
Field:	Santa Fe Springs		**Job Ticket:**	11638	
State:	California		**Total Depth:**	139 ft	
			Water Level:	67 ft	
Location:	10806 Bloomfield Ave.		**Operator:**	Ridder	
Zero Datum:	Top of CSG	**Tool Zero:**	Side-Scan		
Reason for Survey:	General Inspection				

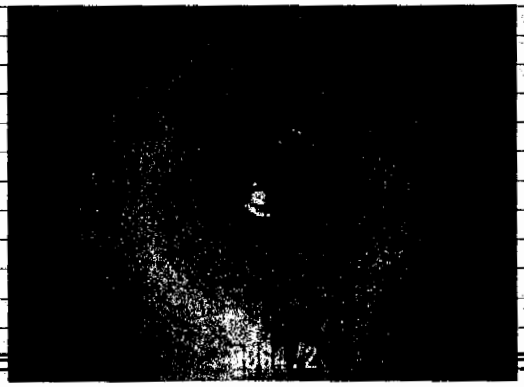
Depth	Remarks	Perforation:	
38.0 ft	Separated seam due to corrosion	N/A	
44.7 ft	Hole in casing		
[illegible].0 ft	Damaged seam		
[illegible].0 ft	Damaged seam: able to see formation		
67.3 ft	SWL: water very turbid, difficult to see down		
71.0 ft	Damage seam		
[illegible].0 ft	Turbidity increases, difficult to see side of csg	Casing Size	
[illegible]4.0 ft	Piece of debris in well: wood	12"	0.00 ft to N/A
129.0 ft	Turbidity increases, difficult to see side of csg		
136.0 ft	Difficult to see side of cog		
[illegible]9.6 ft	Fill: end survey		

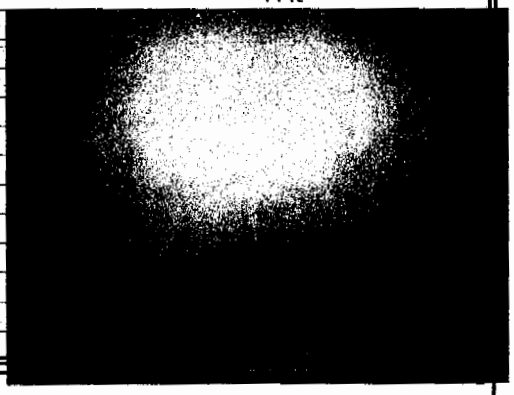


38 ft

44 ft

44 ft





No perforations were observed. Casing below SAL appeared in relatively good shape

Notes: **All depths are referenced to side-scan lens. Down view lens is 5" below side-scan.**

800.919.7555
909.625.6262

4456 via st. ambrose
claremont ca 91711
www.pacificsurveys.com

fax: 909.399.3180

Pacific Surveys

WELL: No. 1

Ninyo & Moore

DEPTH: 139 ft RUN: One

DATE: 10/11/04

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

December 16, 2004
Project No. 205372004

Mr. Michael Lui
Los Angeles County Department of Health Services
Mountain and Rural Program
5050 Commerce Drive
Baldwin Park, California 91706

FAR

Subject: Documentation of Telephone Conversation
Well Decommissioning
Bloomfield II Property
10806 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Lui:

This letter documents our telephone conversation on November 19, 2004, regarding the decommissioning of two commercial groundwater wells (designated GW-1 and GW-2) discovered during grading activities at the above-referenced property ("site"). This letter presents an alternative abandonment procedure and amends the well permits sent to you on October 13, 2004.

As presented in the groundwater well permits, monitoring well GW-1 was discovered to be constructed of a 12-inch-diameter steel casing with a total depth of approximately 160 feet below the ground surface (bgs). This well was assessed to have "silted-up" to a depth of approximately 140 feet. A video log showed the casing to be damaged and old (pre-1940s). Monitoring well GW-2 was constructed of a 16-inch steel casing with a total depth of approximately 190 feet bgs. This well was discovered to have "silted-up" from approximately 157 to 190 feet, and was full of fine sand from surface to approximately 157 feet bgs.

Based on these findings, Ninyo & Moore has discussed the construction details and proposed abandonment procedures with a number of drilling companies. Based on the age of the wells and damaged casing condition, perforating the casing using a Mills Knife or equivalent perforating equipment was assessed to be very difficult and costly, and could possibly damage surrounding buildings (e.g., the load noise produced by a wire-line method could break windows). Based on

this information, Ninyo & Moore proposed the following abandonment procedures to you in our telephone conversation on November 19, 2004. This letter documents our conversation and your verbal approval of these methods.

Ninyo & Moore will abandon the wells by cleaning out excess soil to a depth of approximately 150 feet bgs, or to the deepest point possible (whichever is most) using air rotary drilling procedures. Neat cement will then be tremied into the casing. A pressure will then be applied, and the casing will be cut at approximately 5 feet bgs. As we discussed, Ninyo & Moore will not perforate the wells prior to the abandonment activities.

The abandonment procedure described herein should adequately destroy the wells and provide protection to the underlying groundwater. These procedures were based on our professional experience and discussions with licensed drilling contractors and are based on the following:

- Based on the age of the wells, the casings were most likely pile-driven using no filter pack.
- As part of the real estate due diligence process, numerous environmental investigations and some soil remediation have been completed at the site under the direction and oversight of the Regional Water Quality Control Board, Los Angeles Region (RWQCB). Following these activities, the RWQCB issued a no further action (NFA) letter dated April 15, 2004. A copy of the letter is attached.
- The site is currently being redeveloped for warehouse/distribution purposes and the wells will be located under an asphalt capped parking lot.
- Groundwater has been measured at depths of approximately 100 feet bgs.

Due to your vacation schedule, Ninyo & Moore has scheduled the abandonment procedures for January 12 and 13, 2005. Ninyo & Moore will contact you in January to remind you of our schedule.

If you have any questions or comments regarding this letter, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR/emp

Attachment: RWQCB No Further Action Letter, dated April 15, 2004

Distribution: (1) Addressee

California Regional Water Quality Control Board

Los Angeles Region

Over 51 Years Serving Coastal Los Angeles and Ventura Counties
Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

Terry Tamminen
Secretary for Environmental Protection

Arnold Schwarzenegger
Governor

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: http://www.swrcb.ca.gov/rwqcb4

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 2
To Mr. Lowell Morse	From D. Zachowski
Co. Cenco	Co. RWQCB-LAR
Dept.	Phone # (213) 576-6607
Fax # (562) 903-8911	Fax #

April 15, 2004

Mr. Michael Barranco
CENCO Refining Company
12345 Lakeland Road
Santa Fe Springs, CA 90670

NO FURTHER ACTION – FORMER OIL FIELD AND REFINERY PROPERTY-BLOOMFIELD PROPERTY – CENCO REFINERY – 12345 LAKELAND ROAD, SANTA FE SPRINGS (SLIC NO. 318, SITE ID 2040071)

Dear Mr. Barranco:

Thank you for the Closure Report dated December 2003, for the Bloomfield property. Soil investigations and remedial activities was conducted at the property from 1985 to December 2004 to characterize and remediate the source of total petroleum hydrocarbons (TPH), and benzene, toluene, ethylbenzene, and xylenes (BTEX), and volatile organic compounds (VOCs) resulting from historical oilfield production and refinery activities.

Prior to the remediation work, soil analytical results detected the presence of TPH as gasoline (ranging from below detection limits to 653 milligrams per kilogram (mg/kg), TPH as diesel (ranging from below detection limits to 9,760 mg/kg), TPH as motor oil (ranging from below detection limits to 25,000 mg/kg), benzene (ranging from below detection limits to 0.022 mg/kg), toluene (ranging from below detection limits to 0.098 mg/kg), ethylbenzene (ranging from below detection limits to 0.160 mg/kg), and xylenes (ranging from below detection limits to 0.025 mg/kg). Approximately 3,405 tons of impacted soil were excavated from identified areas and transported offsite. The onsite residual contaminants left in place consisted of minor isolated elevated concentrations of methyl tertiary butyl ether (MTBE), Naphthalene, and tertiary butyl alcohol (TBA).

Based upon the information submitted, the Regional Board has no further requirements with respect to soils and groundwater at the site. The residual VOC contaminants are localized, limited in mass and extent, and are expected to naturally attenuate through the biodegradable nature of petroleum based hydrocarbons over time. All other contaminants were below the site specific cleanup levels established by the Regional Board's 1996 Interim Site Assessment and Cleanup Guidebook, and the U.S. EPA Region IX preliminary remediation goals (PRG) levels for human health protection.

Groundwater is encountered at approximately 88 to 105 feet below ground surface (bgs). Three groundwater-monitoring wells are located on the property and have been used to provide site-wide representative information on groundwater quality. Groundwater analytical testing results indicated TPH, fuel oxygenate, and VOCs during monitoring events. One on-site monitoring well had a recent detection of benzene at 1,400 micrograms per liter. The source on the benzene is attributed to an offsite

source that will be managed under Regional Board authority. The groundwater test results and recent soil gas analysis were used to complete a residential scenario human health risk assessment for the site and it was determined that there was no unacceptable exposure potential. The resulting low groundwater concentrations indicate that historical activities at the site have not significantly impacted groundwater quality at this site.

A site-wide risk assessment was performed utilizing the available analytical data from the site, under a residential use scenario. The risk-assessment report was submitted to Cal EPA Office of Environmental Health Hazard Assessment (OEHHA). Approval was received from OEHHA in April 2004.

This determination of no further action for soils and groundwater is based on available information and the provision that the information provided to this agency was accurate and representative of site conditions. Please contact the Regional Board immediately, if additional soil and groundwater contamination is discovered during any future development activities. Future soil cleanup may be required as warranted by redevelopment or change of land use proposed at the site.

A Soils Management Plan (SMP) must be submitted to the Santa Fe Springs Fire Department and approved before any grading activities are conducted on the site. The elements of SMP must be fulfilled during site grading. Please be advised that a final SMP report must be submitted and approved by the Santa Fe Springs Fire Department before a building permit can be issued for the site.

Please contact J. T. Liu at (213) 576-6667 or Mr. Steven Hariri at (213) 576-6745, if you have any questions regarding this matter.

Sincerely,

Dennis A. Dickerson
Executive Officer

cc: Barry Molnaa, Arcadis
Andy Lazzaretto, City of Santa Fe Springs

ATTACHMENT C

COPIES OF FIELD CONCRETE TICKETS

Chaparral Concrete Company

PLANT
LOS ANGELES ST.
ALE, CA 91706
13-4383

519 So. Benson Avenue
Ontario, CA 91762
(909) 983-9789

49830

Check FOR $506.61
Balance of 36.82 FOR Wed

WEIGHMASTER CERTIFICATE
THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

WARNING: Injurious to eyes. Causes skin irritation. Read warning on reverse side of this ticket before using.

NOTICE: Our Customer Service Associates will make every effort to place material where Customer designates, but the Company assumes no responsibility for damages inside curb or property line. Claims for shortage will not be allowed unless made at the time of delivery.

PLANT NO.	CUSTOMER NO.	PROJECT NO.	TIME	DATE	BATCH TICKET
AL.PRK.	91001		11:54AM	25-Jan-05	41295

SOLD TO:
WEST HAZ MAT DRILLING

DELIVERY ADDRESS:
10806 BLOOMFIELD S FE SPRINGS
707 A-6
N / E CRNR LAKELAND
PO # 501-508

MIX DESIGN	MIX DESCRIPTION	LOAD NO.	QUANTITY THIS TICKET	QUANTITY ORDERED	QUANTITY DELIVERED
0SS	[redacted] SK SAND SLRY	1	4.00 yd3	4.00	4.00

CHAPARRAL CONCRETE COMPANY WEIGHMASTER
By JAY BLACKBURN
DEPUTY

COMMENTS
COD Cor Check OK

PRICE 95.5	382.00
MINIMUM LOAD	
MISC.	100.00 20.00
SUBTOTAL	502.00
SALES TAX	41.42
DELAY TIME	
TOTAL DUE THIS TICKET	543.42
PREVIOUS TOTAL	
PAY THIS AMOUNT	

WATER OR OTHER INGREDIENTS ADDED TO THIS CONCRETE MAY REDUCE ITS STRENGTH [redacted] AND SHALL BE ADDED ONLY [redacted] ER'S REQUEST. CUSTOMER [redacted] AGREES TO INDEMNIFY [redacted] CONCRETE COMPANY [redacted] CLAIM ARISING FROM SUCH [redacted]

WATER ADDED AT JOB SITE: 20 GA.
WATER ADDED AT PLANT SITE: ____ GA.
MAXIMUM ALLOWABLE WATER: ____ GA.

DESIGNED SLUMP 4" IN.

TEST CYLINDERS TAKEN? ☐ YES ☑ NO

DELAY TIME
Four (4) minutes per yard free time allowed.
Excess time charged at hourly rate.
____ Hrs. ____ Mins

TRUCK NO. 512 MIKE
CUSTOMER SERVICE ASSOCIATE GIBSON

LEAVE PLANT	1201	DRUM REVS	
ARRIVE JOB	1258		
START UNLOAD	100	LEAVE PLANT	
FINISH UNLOAD	103		
END CLEANUP	150	START UNLOAD	
LEAVE JOB	150	FINISH UNLOAD	
ARRIVE PLANT	252		

I HEREBY ACKNOWLEDGE I HAVE READ AND AGREE TO THE TERMS OF THE INVOICE, SUBJECT TO CONDITIONS ON REVERSE SIDE OF TICKET.

X
CUSTOMER SIGNATURE

CUSTOMER SERVICE ASSOCIATE SIGNATURE

I do hereby certify that I delivered the herein named materials at the above address, and saw said material incorporated into said address.

Chaparral Concrete Company

49557

DALE PLANT
. E. LOS ANGELES ST.
.NDALE, CA 91706
3) 813-4383

519 So. Benson Avenue
Ontario, CA 91762
(909) 983-9789

COMPANY CHECK
11050

WEIGHMASTER CERTIFICATE
THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

WARNING: Injurious to eyes. Causes skin irritation. Read warning on reverse side of this ticket before using.

NOTICE: Our Customer Service Associates will make every effort to place material where Customer designates, but the Company assumes no responsibility for damages inside curb or property line. Claims for shortage will not be allowed unless made at the time of delivery.

PLANT	CUSTOMER NO	PROJECT NO.	TIME	DATE	BATCH TICKET
BAL. [redacted]	91001		2:29PM	25-Jan-05	41299

SOLD TO:
WEST [redacted] MAT DRILLING

DELIVERY ADDRESS:
10806 BLOOMFIELD S FE SPRNGS
707 A-6
N / E CRNR LAKELAND
PO # 501-[redacted]

MIX DESIGN	MIX DESCRIPTION	LOAD NO.	QUANTITY THIS TICKET	QUANTITY ORDERED	QUANTITY DELIVERED
10[redacted]	[redacted] SK SAND SLRY	2	4.00 yd3	4.00	8.00

[redacted] CONCRETE COMPANY WEIGHMASTER
By [redacted] BLACKBURN
DEPUTY

COMMENTS
COD Co check

WATER OR [redacted] INGREDIENTS ADDED TO THIS CON[redacted]E MAY REDUCE ITS STRENGTH AND [redacted]LITY AND SHALL BE ADDED ONLY AT C[redacted]STOMER'S REQUEST. CUSTOMER HE[redacted]BY AGREES TO INDEMNIFY CHAPARRAL CONCRETE COMPANY FROM ANY CLAIM ARISING FROM SUCH ADDITIONS.

WATER ADDED AT JOB SITE: Ø GA.
WATER ADDED AT PLANT SITE: ____ GA.
MAXIMUM ALLOWABLE WATER: ____ GA.

DESIGNED SLUMP 4" IN.

TEST CYLINDERS TAKEN? ☐ YES ☑ NO

DELAY TIME
Four (4) minutes per yard free time allowed.
Excess time charged at hourly rate.
____ Hrs. ____ Mins

TRUCK NO.	CUSTOMER SERVICE ASSOCIATE
401	CARLOS R.

LEAVE PLANT	2:44	DRUM REVS	
ARRIVE JOB	3:20		
START UNLOAD	3:30	LEAVE PLANT	
FINISH UNLOAD	3:35		
END CLEANUP	3:45	START UNLOAD	
LEAVE JOB	3:45	FINISH UNLOAD	
ARRIVE PLANT	4:20		

PRICE 95.5	382.00
MINIMUM LOAD	
MISC. [redacted]	100.[redacted] 20.00
SUBTOTAL	502.00
SALES TAX	41.42
DELAY TIME	
TOTAL DUE THIS TICKET	543.42
PREVIOUS TOTAL	PAID 0 Y
PAY THIS AMOUNT	CHECK

I HEREBY ACKNOWLEDGE I HAVE READ AND AGREE TO THE TERMS OF THE INVOICE, SUBJECT TO CONDITIONS ON REVERSE SIDE OF TICKET.

X [signature]
CUSTOMER SIGNATURE

CUSTOMER SERVICE ASSOCIATE SIGNATURE

I ____ do hereby certify that I delivered the herein named materials at the above address, and saw said material incorporated into said address.

EFORE USING. ... irritation, ... waterproof ... when ... high

Chaparral Concrete Company

49561

WEIGHED AT: IRWINDALE PLANT
13000 E. LOS ANGELES ST.
IRWINDALE, CA 91706
(626) 813-4383

519 So. Benson Avenue
Ontario, CA 91762
(909) 983-9789

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

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PLANT NO.	CUSTOMER NO	PROJECT NO.	TIME	DATE	BATCH TICKET
BAL.PRK.	91001		11:54AM	26-Jan-05	41303

SOLD TO:
WEST HAZ MAT DRILLING

DELIVERY ADDRESS:
10806 BLOOMFIELD S FE SPRNGS
707 A-6
N / E CRNR LAKELAND
PO # 501-508

MIX DESIGN	MIX DESCRIPTION	LOAD NO.	QUANTITY THIS TICKET	QUANTITY ORDERED	QUANTITY DELIVERED
23NEAT	23.8 SK NEAT	1	4.50 yd3	9.00	4.50

CHAPARRAL CONCRETE COMPANY WEIGHMASTER
By [redacted] BLACKBURN
DEPUTY

COMMENTS
COD co. check OK

PRICE 185.0	832.50
MINIMUM LOAD	
MISC.	20.00
SUBTOTAL	852.50
SALES TAX	70.33
DELAY TIME	
TOTAL DUE THIS TICKET	922.83
PREVIOUS TOTAL	
PAY THIS AMOUNT	

WATER OR CO[illegible]EDIENTS ADDED TO THIS CO[illegible] MAY REDUCE ITS STRENGTH AND QUALITY AND SHALL BE ADDED ONLY AT CUSTOMER'S REQUEST. CUSTOMER HEREBY AGREES TO INDEMNIFY CHAPARRAL CONCRETE COMPANY FROM ANY CLAIM ARISING FROM SUCH ADDITIONS.

WATER ADDED AT JOB SITE: 0 GA.
WATER ADDED AT PLANT SITE: ____ GA.
MAXIMUM ALLOWABLE WATER: ____ GA.

DESIGNED SLUMP 6" IN.

TEST CYLINDERS TAKEN? ☐ YES ☑ NO

DELAY TIME
Four (4) minutes per yard free time allowed.
Excess time charged at hourly rate.
____ Hrs. ____ Mins

TRUCK NO.	CUSTOMER SERVICE ASSOCIATE
512	MIKE GIBSON

LEAVE PLANT	1154	DRUM REVS	
ARRIVE JOB	1257	LEAVE PLANT	
START UNLOAD	1259	START UNLOAD	
FINISH UNLOAD	127	FINISH UNLOAD	
END CLEANUP	139		
LEAVE JOB	139		
ARRIVE PLANT	222		

HEREBY ACKNOWLEDGE I HAVE READ AND AGREE TO THE TERMS OF THE INVOICE, SUBJECT TO CONDITIONS ON REVERSE SIDE OF TICKET.

X [signature]
CUSTOMER SIGNATURE

CUSTOMER SERVICE ASSOCIATE SIGNATURE

I _____ do hereby certify that I delivered the herein named materials at the above address, and saw said material incorporated into said address.

Chaparral Concrete Company

49562

WEIGHED AT: IRWINDALE PLANT
13000 E. LOS ANGELES ST.
IRWINDALE, CA 91706
(626) 813-4383

519 So. Benson Avenue
Ontario, CA 91762
(909) 983-9789

WEIGHMASTER CERTIFICATE
THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

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PLANT NO.	CUSTOMER NO.	PROJECT NO.	TIME	DATE	BATCH TICKET
[illegible]	[illegible]		[illegible]	[illegible]	[illegible]

SOLD TO: WEST HAZ MAT DRILLING

DELIVERY ADDRESS: 10846 BLOOMFIELD S FT SPRINGS
1907 A-6
N Z E CHNP LAKELAND
PO # 501-50N

MIX DESIGN	MIX DESCRIPTION	LOAD NO.	QUANTITY THIS TICKET	QUANTITY ORDERED	QUANTITY DELIVERED
[illegible]	[illegible] SK NEAT	2	[illegible] yd	[illegible]	9

CHAPARRAL CONCRETE COMPANY WEIGHMASTER
By JAY PLACKRUN
DEPUTY

COMMENTS: COD

PRICE	885.0
	832.50
MINIMUM LOAD	36.00
MISC	0.00
SUBTOTAL	832.50
SALES TAX	68.68
DELAY TIME	
TOTAL DUE THIS TICKET	901.18
PREVIOUS TOTAL	922.[illegible]
PAY THIS AMOUNT	[illegible]

WATER OR OTHER INGREDIENTS ADDED TO THIS CONCRETE MAY REDUCE ITS STRENGTH AND QUALITY AND SHALL BE ADDED ONLY AT CUSTOMER'S REQUEST. CUSTOMER HEREBY AGREES TO INDEMNIFY CHAPARRAL CONCRETE COMPANY FROM ANY CLAIM ARISING FROM SUCH ADDITIONS.

WATER ADDED AT JOB SITE: _____ GA.
WATER ADDED AT PLANT SITE: _____ GA.
MAXIMUM ALLOWABLE WATER: _____ GA.

DESIGNED SLUMP _____ IN.

TEST CYLINDERS TAKEN? ☐ YES ☒ NO

DELAY TIME
Four (4) minutes per yard free time allowed.
Excess time charged at hourly rate.
_____ Hrs. _____ Mins

TRUCK NO.	CUSTOMER SERVICE ASSOCIATE
904	BILL JONES

LEAVE PLANT	[illegible]	DRUM REVS	
ARRIVE JOB	[illegible]		
START UNLOAD		LEAVE PLANT	
FINISH UNLOAD	[illegible]		
END CLEANUP		START UNLOAD	
LEAVE JOB	[illegible]	FINISH UNLOAD	
ARRIVE PLANT			

I HEREBY ACKNOWLEDGE I HAVE READ AND AGREE TO THE TERMS OF THE INVOICE, SUBJECT TO CONDITIONS ON REVERSE SIDE OF TICKET.

X _____
CUSTOMER SIGNATURE

CUSTOMER SERVICE ASSOCIATE SIGNATURE

I _____ do hereby certify that I delivered the herein named materials at the above address, and saw said material incorporated into said address.

ATTACHMENT D

PHOTOGRAPHIC DOCUMENTATION

Photograph No. 1: Removal of upper 5 feet of well casing at GW-1.

Photograph No. 2: Cement "mushroomed" over top of well casing at GW-1.

Photograph No. 3: Removal of upper 5 feet of well casing at GW-2.

Photograph No. 4: Cement "mushroomed" over top of well casing at GW-2.

APPENDIX F

PERTINENT INFORMATION REGARDING FORMER PLEGEL OIL COMPANY LEASE

City of Santa Fe Springs

Headquarters Fire Station

11300 Greenstone Ave. • CA • 90670-4619 • (562) 944-9713 • Fax (562) 941-1817 • www.santafesprings.org

March 8, 2005

Mr. Paul Roberts
Ninyo & Moore
475 Goddard
Irvine, CA 92618

INDUSTRIAL WASTEWATER PRETREATMENT EQUIPMENT CLOSURE CERTIFICATION FOR THE TWO-STAGE WASTE WATER SEPARATOR AND THREE-STAGE CLARIFIER @ 12600 FLORENCE AVENUE

This office has reviewed the *Excavation Report* dated February 25, 2005 and a copy of the building department permit for the clarifier removal. Based on the information submitted, we find that you have complied with the tasks outlined in the *Addendum to the General Work Plan* approved by our department October 6, 2004. It is our understanding that documentation related to soil pile disposal will be included in the site-wide Final Grading Report. In addition, this grading report will include all elements of the approved *Revised Soil Management Plan* for the Bloomfield II Property. Our department will review the elements of the Final Grading Report corresponding to the Revised Soil Management Plan. Approval of the Final Grading Report from our department will fulfill the soil management plan report submittal requirement in condition No. 46C of Development Plan Approval (DPA) Case No. 778-785.

Any questions regarding this matter should be directed to Tom Hall, Environmental Protection Specialist, at (562) 906-3815.

Very truly yours,

Neal Welland

Neal Welland
Fire Chief

cc: Linda Escamilla, Building & Safety
Wayne Morrell, Planning Department

February 25, 2005
Project No. 205372005

City of Santa Fe Springs
Fire Department
Environmental Protection Division

APPROVED FOR THE FOLLOWING PROGRAMS

[redacted] [redacted]
[redacted] [redacted]
[redacted] [redacted] X Other Site Mitigation

Subject to field inspection [illegible] test, notations hereon, conditions in correspondence and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any regulation of the law.

By [signature] Date 3/8/05

X See 3/8/05 Closure Cert. letter from SFSFD for details

Mr. Tom Hall
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, California 90670

Subject: Excavation Report
Bloomfield II Property
Former Plegel Oil Company Lease
12600 Florence Avenue
Santa Fe Springs, California

Dear Mr. Hall:

This report presents the results of the excavation activities that were conducted to mitigate petroleum hydrocarbon and metal impacted soil previously discovered at the former Plegel Oil Company Lease property (referred to as the Plegel lease property or the site) located in the northwestern corner of the Bloomfield II Property in Santa Fe Springs, California (Figures 1 and 2). The impacted soil was discovered during an initial soil boring investigation and closure of the aboveground storage tanks (ASTs) and the industrial wastewater unit at the site. Work was completed in general accordance with the approved AST/Industrial Wastewater Unit Closure Report and Remedial Action Plan (RAP) dated February 8, 2005.

BACKGROUND

Prior to acquisition of the site in early 2004 by Bloomfield Partners II, LLC, Ninyo & Moore completed a subsurface investigation adjacent to the ASTs and industrial wastewater unit as part of a real estate due diligence activity. Petroleum hydrocarbon and lead impacted soil was discovered in limited areas. Characterization of these areas indicated that the petroleum hydrocarbon impacted soil was limited vertically and laterally, and would not threaten groundwater that was reported beneath the site at depths of approximately 95 feet below the ground surface (bgs). Following acquisition of the site, Ninyo & Moore completed a Soil Management Plan (SMP) under

the direction of the Santa Fe Springs Fire Department (SFSFD) which outlined cleanup standards and management activities of possible unknown environmental features that might be encountered during redevelopment activities (Ninyo & Moore, 2004). In early 2005, Ninyo & Moore removed the ASTs and industrial wastewater unit under the direction and oversight of the SFSFD. Confirmation samples collected beneath some of these features also indicated elevated concentrations of lead and copper. As presented in the RAP, the following presents the areas that were proposed to be mitigated by excavation due to the elevated concentrations of petroleum hydrocarbons and/or metals, the proposed scope of work, and the chemical of concern (COC) in each area.

- **Boring POL1** – Laboratory results indicated elevated concentrations of total lead in a soil sample collected at a depth of approximately 5 feet bgs. Laboratory results of the soil sample collected at approximately 10 feet bgs in this boring indicated low concentrations of total lead (Table 1). The depth of the excavation is expected to be less than 7 to 8 feet bgs. Confirmation samples will be analyzed for total lead.

- **Boring POL2 and Confirmation Sample T5-2** – Laboratory results of a soil sample collected at a depth of approximately 15 feet bgs in boring POL2 indicated elevated concentrations of total petroleum hydrocarbons as gasoline (TPHg) and total petroleum hydrocarbons as diesel fuel (TPHd). Laboratory results of the soil sample collected at 20 feet bgs in this boring indicated no detectable to low concentrations of TPHg and TPHd (Table 2). Shallower samples collected in the vicinity of this boring (see sample T5-2 on Table 2, collected at 9 feet bgs) also indicated elevated concentrations of TPHd and naphthalene. Soils will be excavated to anticipated depths of approximately 17 to 18 feet bgs. Confirmation samples will be analyzed for TPHg, TPHd, and naphthalene.

- **Boring POL3** – Laboratory results of a soil sample collected at approximately 10 feet bgs indicated elevated concentrations of TPHg and naphthalene (Table 3). The 5- and 15-foot samples collected from this boring indicated no detectable to low concentrations of TPHg and naphthalene (Table 3). Following removal of the clean overburden to depths of approximately 5 to 7 feet bgs, the impacted soils will be excavated to an anticipated depth of approximately 12 to 13 feet bgs. Confirmation samples will be analyzed for TPHg and naphthalene.

- **Pipeline P1-1** – Laboratory results of a soil sample collected at a depth of approximately 2.5 feet bgs indicated elevated concentrations of total lead, exceeding the Preliminary Remediation Goal for residential use (PRGr) value (Table 4). Because total copper exceeded ten times the Soluble Threshold Limit Concentration (STLC), soluble copper was analyzed using the Waste Extraction Test (WET) method. Laboratory results indicated elevated concentrations of soluble copper (Table 4). The depth of the excavation is expected to be less than 5 feet bgs. The confirmation samples will be analyzed for total lead and total copper.

- **Pipeline P1-5** – Laboratory results of a soil sample collected at a depth of approximately 1.5 feet bgs indicated elevated concentrations of total lead, exceeding 10 times the STLC and the PRGr value (Table 5). Further analysis indicated elevated concentrations of soluble lead using the WET method (Table 5). The depth of the excavation is expected to be less than 3 feet bgs. The confirmation samples will be analyzed for total lead.

Because naphthalene had been recently classified as a carcinogen by the Federal EPA which reduced the PRGr value from 56 milligrams per kilogram (mg/kg) to 1.7 mg/kg, Ninyo & Moore completed a Human Health Screening Evaluation (HHSE) as part of the RAP. The HHSE evaluated the remaining soils that contained elevated concentrations of naphthalene to assess whether a health risk was present. Based on the results, the remaining naphthalene concentrations of 3 mg/kg at 25 feet bgs, 9.3 mg/kg at 2 feet, and 17 mg/kg at 9 feet were assessed not to be a health threat to future occupants (Ninyo & Moore, 2005). These soils were proposed to be left in-place. Other elevated concentrations of naphthalene were discovered to be associated with elevated concentrations of petroleum hydrocarbons. As discussed herein, these soils were excavated and removed from the site. Following review of the RAP, the SFSFD verbally approved the scope of work on February 15, 2005.

OBJECTIVE

The objective of the excavation activities was to mitigate the soils containing elevated concentrations of petroleum hydrocarbons and metals.

EXCAVATION ACTIVITIES AND LABORATORY RESULTS

Reliable Equipment Rental was retained by Bloomfield Partners II, LLC, to excavate the impacted soils under the direction of a California Professional Geologist from Ninyo & Moore. On February 17, 2005, the impacted soils were excavated and confirmation samples were collected. Selected soil samples were analyzed for TPHg, TPHd, and naphthalene by a State-certified mobile laboratory. Lead and copper analyses were completed by a State-certified stationary laboratory. Laboratory results are summarized on Tables 1 through 5 and laboratory reports are

presented in Attachment A. The following presents the results of the excavation and soil sampling activities.

Boring POL1

The area associated with Boring POL1 was excavated as shown on Figure 3, and measured approximately 10 feet by 7 feet by 10 feet bgs. Confirmation samples POL1E-1 through POL1E-5 were collected from the floor and walls (wall samples were collected at a depth of approximately 5 feet bgs) of the excavation and were analyzed for total lead. Laboratory results indicated low concentrations of total lead, well below the PRGr value and hazardous waste criteria (Table 1).

Boring POL2 and Confirmation Sample T5-2

The area associated with Boring POL2 was excavated as shown on Figure 3. At the time of our excavation activities, the area surrounding the "Baker" 5 oil well was being excavated to re-abandon the well. The excavation in the vicinity of previous soil boring POL2 was excavated to a depth of approximately 20 feet bgs. Confirmation sample POL2E-1 was collected from the floor of the excavation and the wall samples (POL2E-2 through POL2E-5) were collected at a depth of approximately 10 feet bgs. Laboratory results indicated no detectable to low concentrations of TPHg and TPHd. Except for sample POL2E-5, laboratory results indicated low concentrations of naphthalene in the confirmation samples (Table 2).

Laboratory results of naphthalene (2.7 mg/kg) in sample POL2E-5 collected at a depth of approximately 10 feet bgs slightly exceeded the PRGr value of 1.7 mg/kg. These results were compared to similar sample concentrations and sample depths that were evaluated during the HHSE for naphthalene. As presented in the HHSE, a sample collected at 9 feet bgs with a concentration of naphthalene at 17 mg/kg was determined not to be a health threat for future occupants. Based on this information, the concentrations of naphthalene discovered in sample POL2E-5 would be considered low and would not pose a health risk to future occupants of the site.

Boring POL3

The clean overburden was excavated in the area of Boring POL3 to a depth of approximately 7 feet bgs and segregated from the impacted soil. The impacted soil was excavated from approximately 7 to 14 feet bgs. Five confirmation soil samples (designated POL3E-1 through POL3E-5) were collected from the floor (at 14 feet bgs) and from each wall (wall sample were collected at approximately 10 feet bgs) as shown on Figure 2. Laboratory results indicated no detectable to low concentrations of TPHg and naphthalene (Table 3).

Pipeline P1-1

The area associated with Pipeline P1-1 was excavated as shown on Figure 2. The final excavation measured approximately 4 feet by 8 feet by 5 feet bgs. Five confirmation samples (designated P1-1E-1 through P1-1E-5) were collected from the floor and walls (wall samples were collected at a depth of approximately 2.5 feet bgs). Laboratory results indicated low concentrations of total lead and copper, well below the PRGr values and hazardous waste criteria (Table 4).

Pipeline P1-5

The area associated with Pipeline P1-5 was excavated as shown on Figure 2. The final excavation measured approximately 4 feet by 8 feet by 4 feet bgs. Five confirmation samples (designated P1-5E-1 through P1-5E-5) were collected from the floor and walls (at a depth of approximately 1.5 feet bgs). Except for sample P1-5E-4, laboratory results indicated low concentrations of total lead, well below the PRGr values and hazardous waste criteria (Table 5).

Laboratory results of sample P1-5E-4 indicated concentrations of total lead below the PRGr value, but exceeded ten times the STLC value of 50 mg/kg. Based on this result, sample P1-5E-4 was analyzed for soluble lead using the Waste Extraction Test (WET) method. Laboratory results indicated no detectable concentrations of soluble lead.

SITE RESTORATION

Based on the laboratory results, the excavations are planned to be backfilled with imported soils and compacted as part of the grading activities. Ninyo & Moore collected four soil samples from the excavated materials for disposal profiling purposes. The impacted soils will be removed from the site and disposed or recycled at an appropriate licensed facility.

CONCLUSIONS AND RECOMMENDATION

In accordance with the approved RAP, Ninyo & Moore successfully excavated the areas of containing elevated concentrations of petroleum hydrocarbons and metals that were previously discovered at the site. Laboratory results of confirmation samples indicated that the extent had been reached. Based on these data, Ninyo & Moore requests that the SFSFD issue a no further action (NFA) letter for the site.

If you have any questions or comments regarding this proposal, please call the undersigned at your convenience.

Sincerely,
NINYO & MOORE

PROFESSIONAL GEOLOGIST
PAUL A. ROBERTS
NO. 6897
EXP. 1-06
STATE OF CALIFORNIA

Paul A. Roberts, P.G., R.E.A. I/II
Senior Environmental Geologist

PAR/mll/emp

Attachments:
- Table 1 – Laboratory Results of Confirmation Samples, Boring POL1
- Table 2 – Laboratory Results of Confirmation Samples, Boring POL2 and Confirmation Sample T5-2
- Table 3 – Laboratory Results of Confirmation Samples, Boring POL3
- Table 4 – Laboratory Results of Confirmation Samples, Pipeline P1-1
- Table 5 – Laboratory Results of Confirmation Samples, Pipeline P1-5
- Figure 1 – Site Location Map
- Figure 2 – Sample Location Map
- Figure 3 – Excavation Area of Borings POL1 and POL2
- Attachment A – Laboratory Reports

Distribution: (2) Addressee
(1) Mr. Peter Rooney, Bloomfield Partners II, LLC
(1) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory, LLP

REFERENCES

Ninyo & Moore, 2004, Revised Soil Management Plan, Bloomfield II Property, 10806 Bloomfield Avenue, Santa Fe Springs, California: Report prepared for Bloomfield Partners II, LLC, Irvine, California, dated June 17.

Ninyo & Moore, 2005, AST/Industrial Wastewater Unit Closure Report and Remedial Action Plan, Bloomfield II Property, Former Plegel Oil Company Lease, 12600 Florence Avenue, Santa Fe Springs, California: Report prepared for the Santa Fe Springs Fire Department, Santa Fe Springs, California, dated February 8.

TABLE 1 – LABORATORY RESULTS OF CONFIRMATION SAMPLES, BORING POL1

Sample No.	Rationale	Depth (ft bgs)	Removed/ Remaining	TPH_{CC} C_4-C_{12} (mg/kg)	TPH_{CC} C_{13}-C_{22} (mg/kg)	TPH_{CC} C_{23}-C_{32+} (mg/kg)	VOCs (mg/kg)	Title 22 Metals (mg/kg)	Soluble Lead WET Analysis (mg/l)	Soluble Lead TCLP Analysis (mg/l)
POL1-5	Previous soil boring to assess soils in the vicinity of former ASTs	5	Removed	99.0	650	2,220	ND	Arsenic 14 Lead 520	4.2	2.4
POL1-10	**Previous soil sample to assess vertical extent of lead impacted soil**	**10**	**Remaining**	–	–	–	–	**Arsenic 11** **Lead 5**	–	–
POL1E-1	**Confirmation sample, floor of excavation**	**8**	**Remaining**	–	–	–	–	**Lead 6.3**	–	–
POL1E-2	**Confirmation sample, west wall of excavation**	**5**	**Remaining**	–	–	–	–	**Lead 6.7**	–	–
POL1E-3	**Confirmation sample, south wall of excavation**	**5**	**Remaining**	–	–	–	–	**Lead 19**	–	–
POL1E-4	**Confirmation sample, north wall of excavation**	**5**	**Remaining**	–	–	–	–	**Lead 8.9**	–	–
POL1E-5	**Confirmation sample, east wall of excavation**	**5**	**Remaining**	–	–	–	–	**Lead 7.1**	–	–
Maximum Soil Screening Levels				1,600	7,500	36,000	NA	Lead: PRGr – 150 TTLC – 1,000 STLC – 5 10 x STLC – 50 Arsenic: Background – 13	5	5

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000 Series
WET – waste extraction test
TCLP – toxicity characteristic leaching procedure
PRGr – Preliminary Remediation Goal for residential use
Maximim soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
"–" – not analyzed
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)

TABLE 2 – LABORATORY RESULTS OF CONFIRMATION SAMPLES, BORING POL2 AND CONFIRMATION SAMPLE T5-2

Sample No.	Rationale	Depth (ft bgs)	Removed/ Remaining	TPH_{CC} C_6-C_{12} (mg/kg)	TPH_{CC} C_{13}-C_{22} (mg/kg)	TPH_{CC} C_{23}-C_{32+} (mg/kg)	VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)
POL2-15	Previous soil boring to assess soils in the vicinity of the former 2nd stage wastewater separator	15	Removed	2,600	8,800	9,300	1,2,4-Trimethylbenzene 0.15 1,3,5-Trimethylbenzene 0.0056 Ethylbenzene 0.037 4-Isopropyltoluene 0.041 Isopropylbenzene 0.097 n-Propylbenzene 0.16 n-Butylbenzene 0.069 sec-Butylbenzene 0.11 tert-Butylbenzene 0.0083 Napthalene 0.41 Xylenes 0.012	<PRGr and/or background	--
POL2-20	**Previous soil sample to assess the vertical extent of impacted soil**	**20**	**Remaining**	**ND**	**29**	**22**	**ND**	--	--
T5-2	Previous confirmation sample collected beneath 2nd stage wastewater separator	9	Removed	5	7,700	6,100	1,2,4-Trimethylbenzene 0.17 Ethylbenzene 0.11 4-Isopropyltoluene 0.045 Isopropylbenzene 0.26 n-Propylbenzene 7.2 n-Butylbenzene 0.058 sec-Butylbenzene 0.18 Naphthalene 28	<PRGr and/or background	2-Methylnaphthalene 60 Naphthalene 22
POL2E-1	**Confirmation sample, floor of excavation**	**20**	**Remaining**	**ND**	**ND**	--	**Naphthalene 0.017**	--	
POL2E-2	**Confirmation sample, west wall of excavation**	**10**	**Remaining**	**ND**	**ND**	--	**Naphthalene 0.021**	--	
POL2E-3	**Confirmation sample, north wall of excavation**	**10**	**Remaining**	**350**	**1,600**	--	**Naphthalene 0.29**	--	
POL2E-4	**Confirmation sample, south wall of excavation**	**10**	**Remaining**	**ND**	**19**	--	**Naphthalene 0.12**	--	
POL2E-5	**Confirmation sample, east wall of excavation**	**10**	**Remaining**	**1,300**	**4,200**	--	**Naphthalene 2.7**	--	
Maximum Soil Screening Levels				1,600	7,500	36,000	1,2,4-Trimethylbenzene 52/NA 1,3,5-Trimethylbenzene 28/NA Ethylbenzene 8.9/7 4-Isopropyltoluene NA/NA Isopropylbenzene NA/NA n-Propylbenzene 240/NA n-Butylbenzene 240/NA sec-Butylbenzene 220/NA tert-Butylbenzene 390/NA 2-Methylnaphthalene NA/NA Naphthalene 1.7/NA Xylenes 270/20	<PRGr and/or background	See VOCs

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000 Series
PNAs – poly nuclear aromatic hydrocarbons analyzed by EPA Method No. 8270B
PRGr – Preliminary Remediation Goal for residential use
Maximum soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
mg/kg – milligrams per kilogram
"–" – not analyzed
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)
Maximum soil screening level for VOCs are presented in PRGr values/RWQCB values (using Table 4-1, for the conservative values of sandy conditions at 80 feet above groundwater)

TABLE 3 – LABORATORY RESULTS OF CONFIRMATION SAMPLES, BORING POL3

Sample No.	Rationale	Depth (ft bgs)	Removed/ Remaining	TPHcc			VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)
				C_6-C_{12} (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)			
P1-4	Previous confirmation sample collected beneath pipeline 1	1.5	Removed	ND	13	77	ND	<PRGr and/or background	ND
POL3-5	Previous soil boring to assess soils in the vicinity of former ASTs	5	Removed	470	1,650	1,440	Isopropylbenzene 0.22 n-Propylbenzene 0.31 n-Butlybenzene 0.011 sec-Butylbenzene 0.089 Napthalene 0.40	--	--
POL3-10	Previous soil boring to assess soils in the vicinity of former ASTs	10	Removed	2,200	6,300	6,900	n-Propylbenzene 0.57 n-Butlybenzene 0.69 sec-Butylbenzene 2.8 Napthalene 7.0	--	--
POL3-15	**Previous soil sample to assess the vertical extent of impacted soils in the vicinity of the former ASTs**	**15**	**Remaining**	**ND**	**ND**	**ND**	**ND**	--	--
POL3E-1	**Confirmation sample, floor of excavation**	**14**	**Remaining**	**ND**	--	--	**Naphthalene 0.033**	--	--
POL3E-2	**Confirmation sample, west wall of excavation**	**10**	**Remaining**	**ND**	--	--	**Naphthalene 0.019**	--	--
POL3E-3	**Confirmation sample, north wall of excavation**	**10**	**Remaining**	**ND**	--	--	**Naphthalene 0.016**	--	--
POL3E-4	**Confirmation sample, south wall of excavation**	**10**	**Remaining**	**ND**	--	--	**Naphthalene 0.012**	--	--
POL3E-5	**Confirmation sample, east wall of excavation**	**10**	**Remaining**	**2.1**	--	--	**Naphthalene 0.040**	--	--
Maximum Soil Screening Levels				**1,600**	**7,500**	**36,000**	Isopropylbenzene NA/NA n-Propylbenzene 240/NA n-Butylbenzene 240/NA sec-Butylbenzene 220/NA Naphthalene 1.7/NA	<PRGr and/or background	NA

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000 Series
PNAs – poly nuclear aromatic hydrocarbons analyzed by EPA Method No. 8270B
PRGr – Preliminary Remediation Goal for residential use
Maximim soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
"--" – not analyzed
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)
Maximum soil screening level for VOCs are presented in PRGr values/RWQCB values (using Table 4-1, for the conservative values of sandy conditions at 80 feet above groundwater)

TABLE 4 – LABORATORY RESULTS OF CONFIRMATION SAMPLES, PIPELINE P1-1

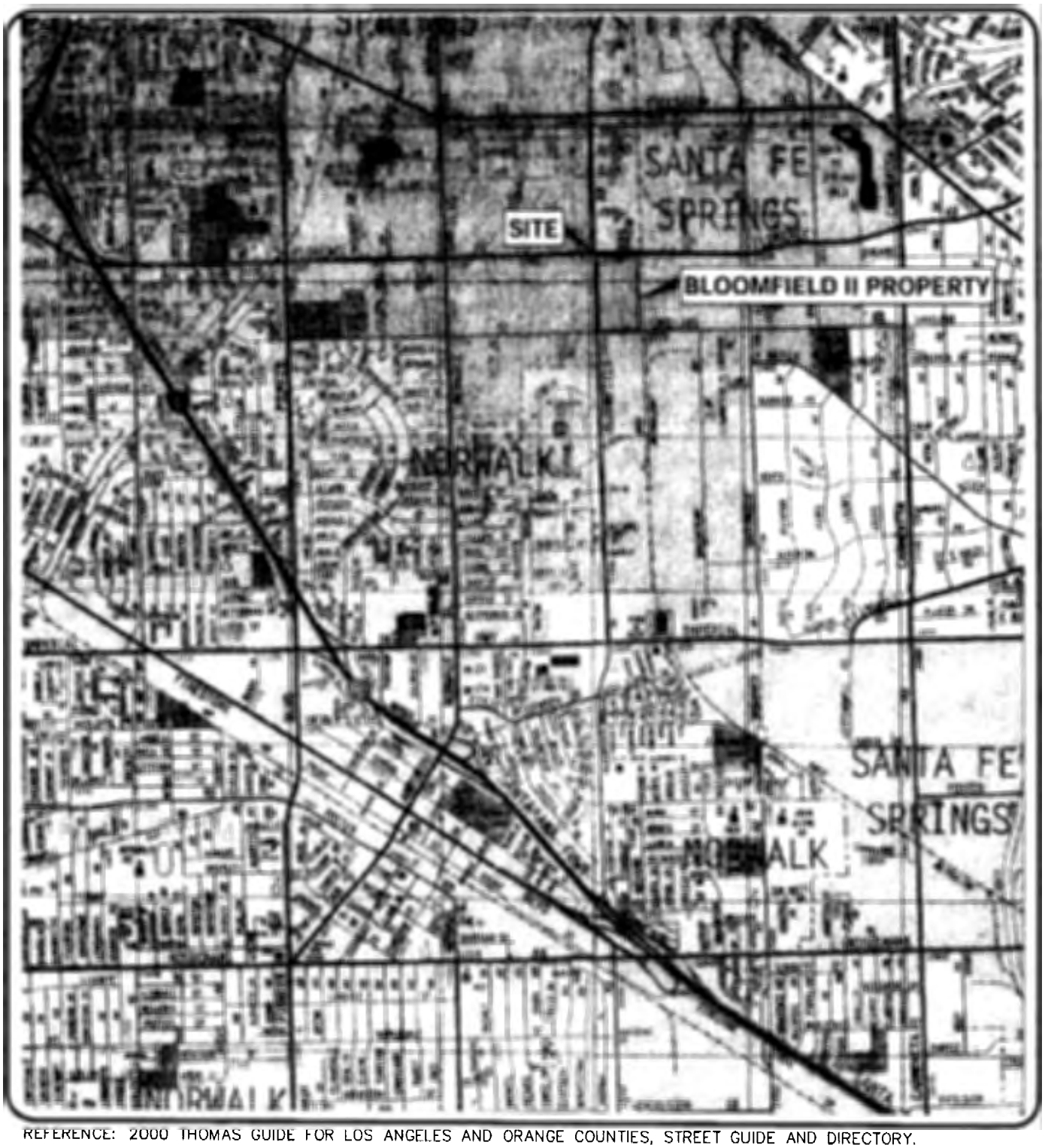
Sample No.	Rationale	Depth (ft bgs)	Removed/ Remaining	TPH_{CC} C_4–C_{12} (mg/kg)	TPH_{CC} C_{13}–C_{22} (mg/kg)	TPH_{CC} C_{23}–C_{32+} (mg/kg)	VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)	Soluble Metals WET Analysis (mg/l)	Soluble Lead TCLP Analysis (mg/l)
P1-1	Previous confirmation sample beneath pipeline 1	2.5	Removed	ND	220	900	ND	Copper 1,500 Lead 200 All Others <PRGr and/or background	ND	Copper 56.2 Lead 4.82	ND
P1-1E-1	Confirmation sample, floor of excavation	5	Remaining	–	–	–	–	Copper 26 Lead 6.9	–	–	–
P1-1E-2	Confirmation sample, north wall of excavation	2.5	Remaining	–	–	–	–	Copper 25 Lead 12	–	–	–
P1-1E-3	Confirmation sample, south wall of excavation	2.5	Remaining	–	–	–	–	Copper 24 Lead 6.3	–	–	–
P1-1E-4	Confirmation sample, east wall of excavation	2.5	Remaining	–	–	–	–	Copper 25 Lead 17	–	–	–
P1-1E-5	Confirmation sample, west wall of excavation	2.5	Remaining	–	–	–	–	Copper 22 Lead 5.4	–	–	–
Maximum Soil Screening Levels				1,600	7,500	36,000	NA	Copper: PRGr – 3,100 TTLC – 2,500 STLC – 25 10 x STLC – 250 Lead: PRGr – 150 TTLC – 1,000 STLC – 5 10 x STLC – 50	NA	Copper: STLC - 25 Lead: STLC-5	Lead 5

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000 Series
PNAs – poly nuclear aromatic hydrocarbons analyzed by EPA Method No. 8270B
WET – waste extraction test
TCLP – toxicity characteristic leaching procedure
PRGr – Preliminary Remediation Goal for residential use
Maximim soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
"–" – not analyzed
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)

TABLE 5 – LABORATORY RESULTS OF CONFIRMATION SAMPLES, PIPELINE P1-5

Sample No.	Location	Depth (ft bgs)	Removed/ Remaining	TPH_{CC}			VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)	Soluble Lead WET analysis (mg/l)	Soluble lead TCLP analysis (mg/l)
				C_4-C_{12} (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)					
P1-5	Previous confirmation sample beneath pipeline 1	1.5	Removed	ND	49	302.9	ND	Lead 230 All Others <PRGr and/or background	ND	Lead 6.66	ND
P1-5E-1	**Confirmation sample, floor of excavation**	**4**	**Remaining**	–	–	–	–	**Lead 11**	–	–	–
P1-5E-2	**Confirmation sample, north wall of excavation**	**1.5**	**Remaining**	–	–	–	–	**Lead 8.2**	–	–	–
P1-5E-3	**Confirmation sample, west wall of excavation**	**1.5**	**Remaining**	–	–	–	–	**Lead 6.7**	–	–	–
P1-5E-4	**Confirmation sample, east wall of excavation**	**1.5**	**Remaining**	–	–	–	–	**Lead 68**	–	**ND**	–
P1-5E-5	**Confirmation sample, south wall of excavation**	**1.5**	**Remaining**	–	–	–	–	**Lead 16**	–	–	–
Maximum Soil Screening Levels				1,600	7,500	36,000	NA	Lead: PRGr – 150 TTLC – 1,000 STLC – 5 10 x STLC – 50	NA	STLC-5	5

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000 Series
PNAs – poly nuclear aromatic hydrocarbons analyzed by EPA Method No. 8270B
WET – waste extraction test
TCLP – toxicity characteristic leaching procedure
PRGr – Preliminary Remediation Goal for residential use
Maximim soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
"–" – not analyzed
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)



205372-A7.DWG

REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

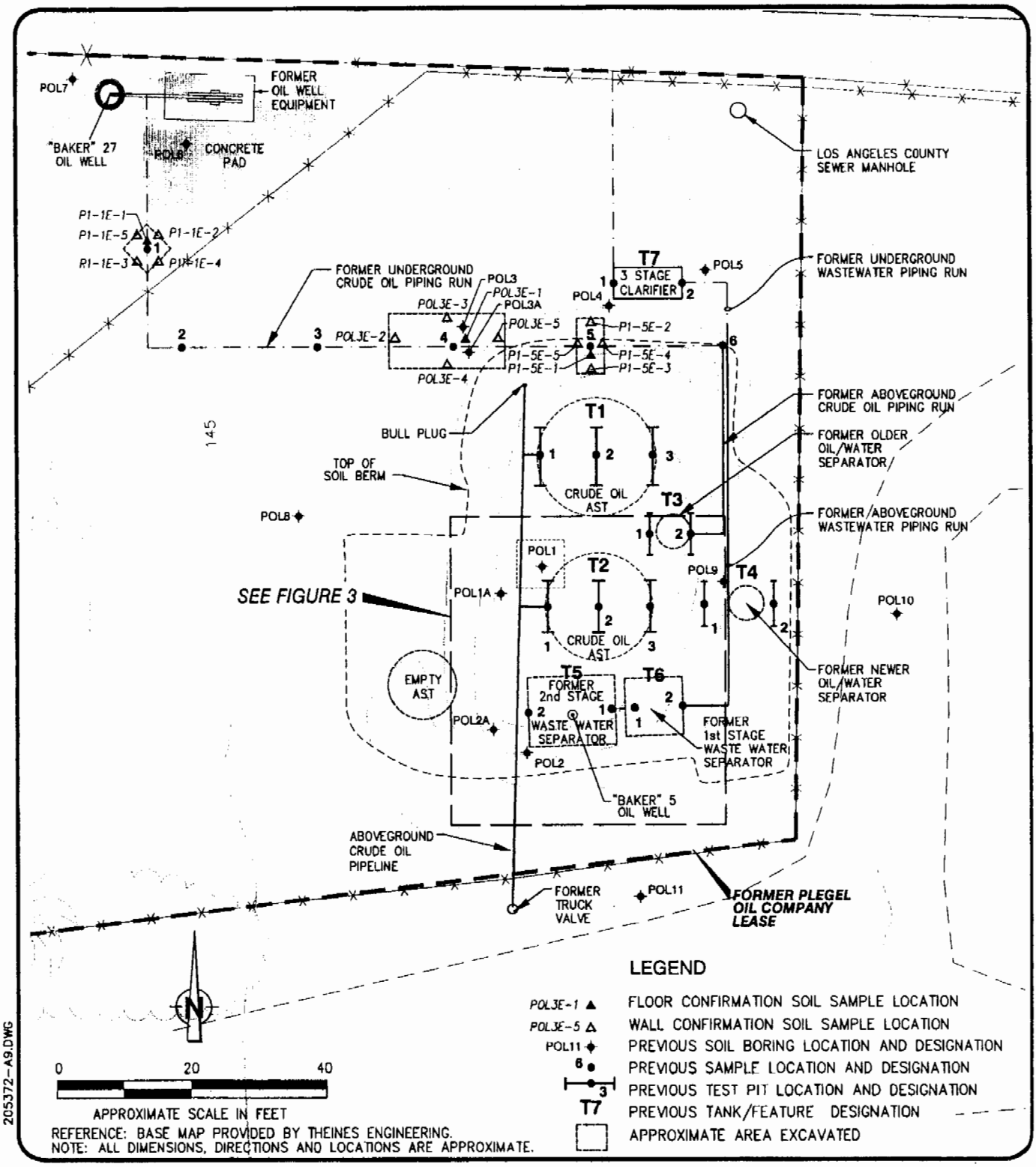
APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE LOCATION MAP

12600 FLORENCE AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	2/2005	1



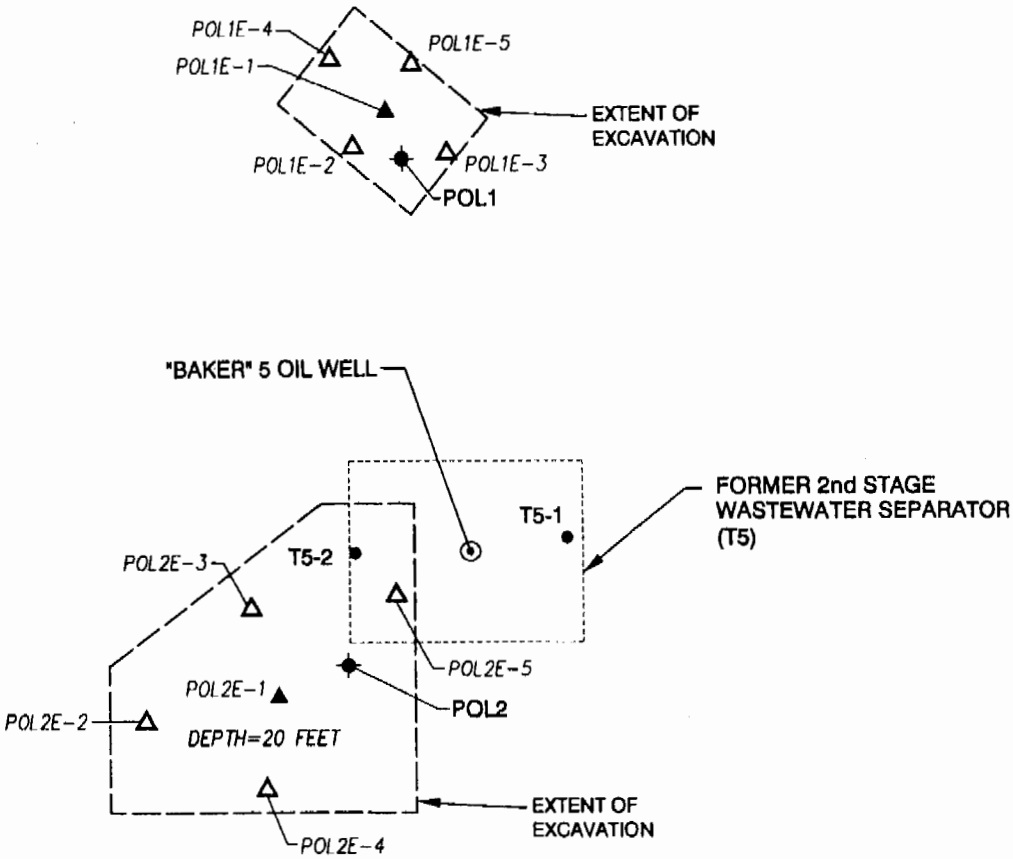
REFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

SAMPLE LOCATION MAP

12600 FLORENCE AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	3/2005	2



LEGEND

POL1E-1 ▲	FLOOR CONFIRMATION SOIL SAMPLE LOCATION
POL2E-5 △	WALL CONFIRMATION SOIL SAMPLE LOCATION
POL2 ✦	PREVIOUS SOIL BORING LOCATION AND DESIGNATION
T5-2 ●	PREVIOUS SAMPLE LOCATION AND DESIGNATION
— — — —	EXTENT OF EXCAVATION

N

0 10 20

APPROXIMATE SCALE IN FEET

REFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

205372-A10.DWG

Ninyo & Moore

EXCAVATION AREA OF BORINGS POL1 AND POL2

12600 FLORENCE AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	3/2005	3

ATTACHMENT A

LABORATORY REPORTS

February 22, 2005

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196

Paul Roberts
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618

TEL: (949) 697-2198
FAX: (949) 753-7071

Workorder No.: 074467

RE: Bloomfield II, 205372005

Attention: Paul Roberts

Enclosed are the results for sample(s) received on February 17, 2005 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *22-Feb-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	PI-5E-4
Lab Order:	074467		
Project:	Bloomfield II, 205372005	**Collection Date:**	2/17/2005
Lab ID:	074467-014A	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS BY STLC						
				WET/ EPA 6010B		
RunID: ICP6_050221A	QC Batch: R46675			PrepDate:		Analyst: **RQ**
Lead	ND	1.0		mg/L	20	2/21/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike/Surrogate outside of limits due to matrix interferen
H - Sample exceeded analytical holding time
E - Value above quantitation range
R - RPD outside acceptable recovery limits

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *22-Feb-05*

CLIENT: Ninyo & Moore
Work Order: 074467
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_ST

Sample ID: **MB-21364** SampType: **MBLK** TestCode: **6010_ST** Units: **mg/L** Prep Date: Run ID: **ICP6_050221A**
Client ID: **ZZZZZ** Batch ID: **R46675** TestNo: **WET/ EPA 60** Analysis Date: **2/21/2005** SeqNo: **682351**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.050									

Sample ID: **LCS-21364** SampType: **LCS** TestCode: **6010_ST** Units: **mg/L** Prep Date: Run ID: **ICP6_050221A**
Client ID: **ZZZZZ** Batch ID: **R46675** TestNo: **WET/ EPA 60** Analysis Date: **2/21/2005** SeqNo: **682352**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.073	0.050	1	0	107	85	115	0	0		

Sample ID: **073788-004AMS** SampType: **MS** TestCode: **6010_ST** Units: **mg/L** Prep Date: Run ID: **ICP6_050221A**
Client ID: **ZZZZZ** Batch ID: **R46675** TestNo: **WET/ EPA 60** Analysis Date: **2/21/2005** SeqNo: **682358**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	3.027	1.0	2.5	0.7876	89.6	67	120	0	0		

Sample ID: **073788-004AMSD** SampType: **MSD** TestCode: **6010_ST** Units: **mg/L** Prep Date: Run ID: **ICP6_050221A**
Client ID: **ZZZZZ** Batch ID: **R46675** TestNo: **WET/ EPA 60** Analysis Date: **2/21/2005** SeqNo: **682359**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	2.996	1.0	2.5	0.7876	88.3	67	120	3.027	1.02	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Arada, Mary Rachelle

From: Paul Roberts [proberts@ninyoandmoore.com]
Sent: Friday, February 18, 2005 3:21 PM
To: Arada, Mary Rachelle
Subject: RE: Results

Rachelle:

Please run sample P1-5E-4 for soluble lead using the WET method. I need this on a RUSH basis.

Paul.

-----Original Message-----
From: Arada, Mary Rachelle [mailto:Rachelle@atlglobal.com]
Sent: Friday, February 18, 2005 3:01 PM
To: Paul Roberts
Subject: Results

<<74467.pdf>>

Rachelle Arada
Project Coordinator
www.atlglobal.com
voice: 562.989.4045 ext 237
fax : 562.989.4040

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.

February 18, 2005

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196

Paul Roberts
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618

TEL: (949) 697-2198
FAX: (949) 753-7071

Workorder No.: 074467

RE: Bloomfield II, 205372005

Attention: Paul Roberts

Enclosed are the results for sample(s) received on February 17, 2005 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Feb-05*

CLIENT: Ninyo & Moore
Project: Bloomfield II, 205372005
Lab Order: 074467

Lab ID: 074467-001 **Collection Date:** 2/17/2005
Client Sample ID: POLIE-1 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	6.3	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-002 **Collection Date:** 2/17/2005
Client Sample ID: POLIE-2 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	6.7	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-003 **Collection Date:** 2/17/2005
Client Sample ID: POLIE-3 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	19	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-004 **Collection Date:** 2/17/2005
Client Sample ID: POLIE-4 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	8.9	1.0		mg/Kg	1	2/18/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Sample exceding holding time

Results are wet unless othewise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Feb-05*

CLIENT: Ninyo & Moore
Project: Bloomfield II, 205372005
Lab Order: 074467

Lab ID: 074467-005 **Collection Date:** 2/17/2005 10:45:00 AM
Client Sample ID: POLIE-5 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: RQ
Lead	7.1	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-006 **Collection Date:** 2/17/2005
Client Sample ID: PI-IE-1 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: RQ
Copper	26	2.0		mg/Kg	1	2/18/2005
Lead	6.9	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-007 **Collection Date:** 2/17/2005
Client Sample ID: PI-IE-2 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: RQ
Copper	25	2.0		mg/Kg	1	2/18/2005
Lead	12	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-008 **Collection Date:** 2/17/2005
Client Sample ID: PI-IE-3 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: RQ
Copper	24	2.0		mg/Kg	1	2/18/2005
Lead	6.3	1.0		mg/Kg	1	2/18/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Sample exceding holding time

Results are wet unless othewise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Feb-05*

CLIENT: Ninyo & Moore
Project: Bloomfield II, 205372005
Lab Order: 074467

Lab ID: 074467-009 **Collection Date:** 2/17/2005
Client Sample ID: PI-IE-4 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Copper	25	2.0		mg/Kg	1	2/18/2005
Lead	17	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-010 **Collection Date:** 2/17/2005
Client Sample ID: PI-IE-5 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Copper	22	2.0		mg/Kg	1	2/18/2005
Lead	5.4	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-011 **Collection Date:** 2/17/2005
Client Sample ID: PI-5E-1 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	11	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-012 **Collection Date:** 2/17/2005
Client Sample ID: PI-5E-2 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	8.2	1.0		mg/Kg	1	2/18/2005

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Sample exceding holding time

Results are wet unless othewise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Feb-05*

CLIENT: Ninyo & Moore
Project: Bloomfield II, 205372005
Lab Order: 074467

Lab ID: 074467-013 **Collection Date:** 2/17/2005
Client Sample ID: PI-5E-3 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	6.7	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-014 **Collection Date:** 2/17/2005
Client Sample ID: PI-5E-4 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	68	1.0		mg/Kg	1	2/18/2005

Lab ID: 074467-015 **Collection Date:** 2/17/2005
Client Sample ID: PI-5E-5 **Matrix:** SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050218A	QC Batch: 21330				PrepDate: 2/17/2005	Analyst: **RQ**
Lead	16	1.0		mg/Kg	1	2/18/2005

Qualifiers:

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J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Sample exceding holding time

Results are wet unless othewise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *18-Feb-05*

CLIENT: Ninyo & Moore
Work Order: 074467
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-21330** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **2/17/2005** Run ID: **ICP5_050218A**
Client ID: **ZZZZZ** Batch ID: **21330** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **2/18/2005** SeqNo: **681083**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	2.0									
Lead	ND	1.0									

Sample ID: **LCS-21330** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **2/17/2005** Run ID: **ICP5_050218A**
Client ID: **ZZZZZ** Batch ID: **21330** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **2/18/2005** SeqNo: **681084**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	52.54	2.0	50	0	105	80	120	0	0		
Lead	47.87	1.0	50	0	95.7	80	120	0	0		

Sample ID: **074467-015AMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **2/17/2005** Run ID: **ICP5_050218A**
Client ID: **PI-5E-5** Batch ID: **21330** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **2/18/2005** SeqNo: **681100**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	125.4	2.0	125	15.73	87.7	58	136	0	0		
Lead	102.5	1.0	125	16.26	69	47	125	0	0		

Sample ID: **074467-015AMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **2/17/2005** Run ID: **ICP5_050218A**
Client ID: **PI-5E-5** Batch ID: **21330** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **2/18/2005** SeqNo: **681101**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	127.9	2.0	125	15.73	89.7	58	136	125.4	1.97	20	
Lead	102	1.0	125	16.26	68.6	47	125	102.5	0.437	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Page 1 of 1

CHAIN OF CUSTODY RECORD

Pg 1 of ____

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____
Logged By: [signature] Date: 2/17/05 Time: ____

Method of Transport: Walk-in ☑ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

Sample Condition Upon Receipt:
1. CHILLED 5.5 Y☑ N☐
2. HEADSPACE (VOA) Y☐ N☐
3. CONTAINER INTACT Y☑ N☐
4. SEALED Y☐ N☑
5. # OF SPLS MATCH COC Y☑ N☐
6. PRESERVED Y☐ N☑

Client: Ninyo & Moore
Attn: Paul A. Roberts
Address: 475 Goddard Suite 200
City Irvine State CA Zip Code 92618
TEL: (949) 753-7070
FAX: (949) 753-7071

Project Name: Bloomfield II
Project #: 205372005
Sampler: (Printed Name) Darren P. Burgett (Signature) [signature]

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[signature] Darren P. Burgett	2/17/05	2:10	[signature]	2/17/05	EW

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Darren P. Burgett (Print Name) 2/17/05 (Date)
[signature] (Signature)

Send Report To:
Attn: Paul A. Roberts
Co: Ninyo & Moore
Address 475 Goddard, Ste 200
City Irvine State CA Zip 92618

Bill To:
Attn: Same
Co: ____
Address ____
City ____ State ____ Zip ____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____
* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER ____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Lead	Total Copper	SOLID & SOIL SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	074467-001A	POLIE-1	2/17/05								X		X								1			
	2	POLIE-2									X										1			
	3	POLIE-3									X										1			
	4	POLIE-4									X										1			
	5	POLIE-5		10:45							X										1			
	6	PI-1E-1									X	X									1			
	7	PI-1E-2									X	X									1			
	8	PI-1E-3									X	X									1			
	9	PI-1E-4									X	X									1			
	10	PI-1E-5									X	X									1			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

[redacted]BUTI[redacted]hite [redacted]port. [redacted] to fo[redacted]ink t[redacted]nitter.[redacted]

CHAIN OF CUSTODY RECORD

Pg 2 of ____

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____

Logged By: [signature] Date: 2/17/05 Time: ____

Method of Transport: Walk-in ☑ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

Sample Condition Upon Receipt:
1. CHILLED Y☑ N☐ 4. SEALED Y☐ N☑
2. HEADSPACE (VOA) Y☐ N☐ 5. # OF SPLS MATCH COC Y☑ N☐
3. CONTAINER INTACT Y☑ N☐ 6. PRESERVED Y☐ N☑

Client: Ninyo & Moore
Attn: Paul A. Roberts
Address: 475 Goddard Suite 200
City Irvine State CA Zip Code 92618
TEL: (949) 753-7070
FAX: (949) 753-7071

Project Name: Bloomfield II
Project #: 205372005
Sampler: (Printed Name) Darren P. Burgett (Signature) [signature]

Relinquished by: (Signature and Printed Name) [signature] Darren P. Burgett Date: 2/17/05 Time: 2:10
Received by: (Signature and Printed Name) [signature] Date: 2/17/05 Time: 2:10
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Darren P. Burgett 2/17/05
Print Name Date
[signature]
Signature

Send Report To:
Attn: Paul A. Roberts
Co: Ninyo & Moore
Address 475 Goddard, Ste 200
City Irvine State CA Zip 92618

Bill To:
Attn: Same
Co:
Address
City State Zip

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested

CIRCLE APPROPRIATE MATRIX

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER ____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPHG/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	Total Lead	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	074467-01	P1-5E-1	2/17/05								X	X								1			
	12	P1-5E-2	↓								↓	↓								1			
	13	P1-5E-3	↓								↓	↓								1			
	14	P1-5E-4	↓								↓	↓								1			
	15	P1-5E-5	↓								↓	↓								1			

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 449-9685

JONES ENVIRONMENTAL

LABORATORY REPORT

Client:	NINYO & MOORE	**Report Date:**	02/18/05
Client Address:	475 Goddard, Suite 200 Irvine, CA 92618	**JEL Ref. No.:**	C-0891
		Client Ref. No.:	205372005
Attn:	Paul Roberts	**Date Sampled:**	02/17/05
		Date Received:	02/17/05
Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

ANALYSES REQUESTED

1. EPA 8260B/5035 - Volatile Organics Compounds by GC/MS for Naphthalene
2. Mod 8015/5035 Gasoline - Volatile Hydrocarbons
3. Mod 8015 Diesel - Semi-Volatile Hydrocarbons

Approval:

Steve Jones, Ph.D.
Laboratory Manager

Jones Environmental, Inc.

Testing Laboratories

P.O. Box 5387 • Fullerton, CA 92838
(714) 449-9937 • FAX (714) 449-9685

JONES ENVIRONMENTAL

LABORATORY RESULTS

Client:	NINYO & MOORE	**Report Date:**	02/18/05
Client Address:	475 Goddard, Suite 200	**JEL Ref. No.:**	C-0891
	Irvine, CA 92618	**Client Ref. No.:**	205372005
Attn:	Paul Roberts	**Date Sampled:**	02/17/05
		Date Received:	02/17/05
Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

EPA 8260B/5035 - Volatile Organics by GC/MS for Naphthalene

Sample ID:	POL2E-1	POL2E-2	POL2E-3	POL2E-4	POL2E-5	Practical Quantitation Limits	Units
Analytes:							
Naphthalene	**17**	**21**	**290**	**120**	**2700**	1.0	ug/Kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery :						**QC Limits**	
Dibromofluoromethane	98%	95%	98%	99%	96%	60 - 140	
Toluene-d_8	99%	102%	97%	96%	98%	60 - 140	
4-Bromofluorobenzene	101%	101%	96%	106%	104%	60 - 140	

EPA 8260B/5035 - Volatile Organics by GC/MS for Naphthalene

Sample ID:	POL3E-1	POL3E-2	POL3E-3	POL3E-4	POL3E-5	Practical Quantitation Limits	Units
Analytes:							
Naphthalene	33	19	16	12	40	1.0	ug/Kg
Dilution Factor	1	1	1	1	1		
Surrogate Recovery :						**QC Limits**	
Dibromofluoromethane	103%	103%	98%	100%	96%	60 - 140	
Toluene-d_8	102%	102%	98%	96%	98%	60 - 140	
4-Bromofluorobenzene	103%	100%	100%	94%	104%	60 - 140	

ND = Not Detected

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JONES ENVIRONMENTAL

QUALITY CONTROL INFORMATION

Client:	NINYO & MOORE	**Report Date:**	02/18/05
Client Address:	475 Goddard, Suite 200 Irvine, CA 92618	**JEL Ref. No.:**	C-0891
		Client Ref. No.:	205372005
Attn:	Paul Roberts	**Date Sampled:**	02/17/05
		Date Received:	02/17/05
Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

EPA 8260B/5035 - Volatile Organics by GC/MS

Sample Spiked: POL3E-4

Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)
1,1-Dichloroethylene	93%	97%	4.7%	60 - 140
Benzene	102%	107%	4.8%	60 - 140
Trichloroethylene	104%	107%	3.2%	60 - 140
Toluene	99%	113%	13%	60 - 140
Chlorobenzene	103%	108%	5.1%	60 - 140

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference

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Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

Modified EPA 8015/5035 - Volatile Hydrocarbons (Gasoline)

Sample ID	Concentration (mg/Kg)	Surrogate Recovery %	**Dilution Factor**	**Practical Quantitation Limits (mg/Kg)**
POL2E-1	ND	114%	1	1.0
POL2E-2	ND	91%	1	1.0
POL2E-3	**350**	--♦	10	1.0
POL2E-4	ND	107%	1	1.0
POL2E-5	**1300**	--♦	100	1.0
POL3E-1	ND	100%	1	1.0
POL3E-2	ND	102%	1	1.0
POL3E-3	ND	104%	1	1.0
POL3E-4	ND	97%	1	1.0
POL3E-5	**2.1**	99%	1	1.0

ND = Not Detected

♦ = High Hydrocarbon concentration in this sample prevented adequate surrogate recovery

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JONES ENVIRONMENTAL

QUALITY CONTROL INFORMATION

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Attn:	Paul Roberts	**Date Sampled:** **Date Received:**	02/17/05 02/17/05
Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

Modified EPA 8015/5035 - Volatile Hydrocarbons (Gasoline)

Sample Spiked: POL3E-4

Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)
Gasoline	97%	103%	6.4%	65 – 125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference

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JONES ENVIRONMENTAL

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Attn:	Paul Roberts	**Date Sampled:**	02/17/05
		Date Received:	02/17/05
Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

Modified EPA 8015 - Semi-Volatile Hydrocarbons (Diesel)

Sample ID	Concentration (mg/Kg)	Surrogate Recovery %	**Dilution Factor**	**Practical Quantitation Limits (mg/Kg)**
POL2E-1	ND	114%	1	10
POL2E-2	ND	91%	1	10
POL2E-3	**1600**	--♦	1	10
POL2E-4	**19**	108%	1	10
POL2E-5	**4200**	--♦	1	10
POL3E-1	ND	100%	1	10
POL3E-2	ND	102%	1	10
POL3E-3	ND	104%	1	10
POL3E-4	ND	97%	1	10
POL3E-5	ND	99%	1	10

ND = Not Detected

♦ = High Hydrocarbon concentration in this sample prevented adequate surrogate recovery

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QUALITY CONTROL INFORMATION

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		Date Received:	02/17/05
Project:	Vacant Lot	**Date Analyzed:**	02/17/05
Project Address:	SE Corner of Bloomfield & Florence, Santa Fe Springs, CA	**Physical State:**	Soil

Modified EPA 8015 - Semi-Volatile Hydrocarbons (Diesel)

Sample Spiked: POL3E-4

Parameter	MS Recovery (%)	MSD Recovery (%)	RPD	Acceptability Range (%)
Diesel	110%	109%	0.6%	65 - 125

Method Blank = Not Detected

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference

JONES ENVIRONMENTAL
TESTING LABORATORIES

P.O. Box 5387
Fullerton, CA 92838
(714) 449-9937
Fax (714) 449-9685

Chain-of-Custody Record

Client: Ninyo + Moore
Date: 2/12/05
Project Name: Vacant Lot
Client Project #: 205372005
Project Address: SE Corner of Bloomfield + Florence, Santa Fe Springs, CA
Project Contact: Paul Roberts

Turn Around Requested:
- ☐ Immediate Attention
- ☐ Rush 24-48 Hours
- ☐ Rush 72-96 Hours
- ☐ Normal
- ☒ Mobile Lab

JEL Project #: C0891
Page 1 of 2

Lab Use Only
Sample Condition as Received:
Chilled ☐ yes ☒ no
Sealed ☒ yes ☐ no

Analysis Requested

Sample ID	Discussion	Date	Time	Laboratory Sample Number	Sample Matrix: Soil (S), Sludge (SL), Aqueous (A), Soil Gas (SG)	8260 (Full)	Mod-8015 (Gasoline)	Mod-8015 (Diesel)				Number of Containers	Remarks/Special Instructions
POL2E-1		2/12/05	08:53	C0891-1	S	X	X	X				3	1 Glass Jar + 2 Encores
POL2E-2		2/12/05	08:58	C0891-2	S	X	X	X				3	
POL2E-3		2/12/05	09:01	C0891-3	S	X	X	X				3	
POL2E-4		2/12/05	09:07	C0891-4	S	X	X	X				3	
POL2E-5		2/12/05	09:20	C0891-5	S	X	X	X				3	
POL3E-1		2/12/05	10:03	C0891-6	S	X	X					3	
POL3E-2		2/12/05	10:05	C0891-7	S	X	X					3	
POL3E-3		2/12/05	10:06	C0891-8	S	X	X					3	
POL3E-4		2/12/05	10:07	C0891-9	S	X	X					3	
POL3E-5		2/12/05	10:09	C0891-10	S	X	X					3	

❶ Relinquished by (signature): Paul Roberts	Date: 2/12/05	❷ Received by (signature): [signature]	Date: 2/12/05
Company:	Time: 12:30	Company: JEL	Time: 12:30
❸ Relinquished by (signature):	Date:	❹ Received by Laboratory (signature):	Date:
Company:	Time:	Company:	Time:

Total Number of Containers

The delivery of samples and the signature on this Chain of Custody form constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof.

10-31-05

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800 Lab. C.)

Policy No. W7280922283 Company Am. Auto. Ins Co.

☐ Certified copy is hereby furnished. 5-1-05

☐ Certified copy is filed with the county building inspection department.

Date 5-1-05 Applicant Ninyo & Moore

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section need not be completed if the work involved by the permit is for one hundred dollars ($100) or less.)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws.

Date _____ Applicant _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

LICENSED CONTRACTORS DECLARATION

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

License Number 697063 Lic. Class A

Contractor Ninyo & Moore Date ~~9-22-04~~ 10-31-06

☐ I am exempt under Sec. _____ of the L.A. Co. Plumbing Code and/or Sec. _____ of the B. & P. Code for the following reason _____

_____ Date _____

Signature _____

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Section 7031.5, Business and Professions Code):

☐ I, as owner of the property, or my employees with wages as their sole compensation, will do the work and the structure is not intended or offered for sale (Section 7044, Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Section 7044, Business and Professions Code).

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____

Lender's Address _____

I certify that I have read this application and state that the above information is correct. I agree to comply with all County ordinances and State laws regulating Plumbing and Sewers, and hereby authorize representatives of this County to enter upon the above-mentioned property for inspection purposes.

[signature] 9-22-04

Signature of Permittee Date

20-0051 DPW Rev. 4/00

APPLICATION FOR PERMIT

SEWER - SEWAGE DISPOSAL

COUNTY OF LOS ANGELES BUILDING AND SAFETY

FOR APPLICANT TO FILL IN

BUILDING ADDRESS	12600 Florence Ave
LOCALITY	Santa Fe Springs
NEAREST CROSS ST.	Florence Ave / Bloomfield Ave
LEGAL DESCRIPTION	LOT NO.
BLOCK	TRACT
ASSESSOR MAP BOOK	PAGE / PARCEL
SIZE OF LOT	20 acres
NO. OF BLDGS. NOW ON LOT	0
USE OF BUILDINGS	NA
OWNER	Bloomfield Partners II, LLC
MAIL ADDRESS	18802 Bardeen Ave.
CITY	Irvine
TEL. NO.	949-756-5959
CONTRACTOR	Ninyo & Moore
ADDRESS	475 Goddard
CITY	Irvine
TEL. NO.	949-753-7070
STATE LICENSE NO.	697063
LIC. CLASS	A

NO.	DESCRIPTION OF WORK	FEE	
	HOUSE SEWER CONNECTING TO PUBLIC SEWER		
	SEPTIC TANK SEEPAGE PIT OR PITS AND OR DRAINFIELD		
	HOUSE SEWER CONNECTING TO PRIVATE DISPOSAL SYSTEM		
	CONNECT ADDITIONAL BLDG OR WORK TO HOUSE SEWER		
	OVERFLOW SEEPAGE PIT DRAINFIELD EXTN CESSPOOL DRYWELL MANHOLE		
	ALTER REPAIR OR ABANDON HOUSE SEWER OR DISPOSAL SYSTEM		
1	Abandon Clarifier	26	80

OWNER'S AUTHORIZATION			
	Permit $	25	50
	TOTAL FEE	52	30

I HAVE AT THIS DATE A CONTRACT WITH THE HEREIN NAMED CONTRACTOR TO CONNECT THE ABOVE DESCRIBED EXISTING DWELLING TO THE PUBLIC SEWER

SIGNED THIS 22 DAY OF Sept 20 04

OWNER OR OWNERS AGENT [signature]

ADDRESS 475 Goddard, Irvine, CA

CONNECTION DATA

STATION	DEPTH
MANHOLE REFERENCE	UPPER / LOWER
TYPE OF CONNECTION	CURB / PL
LENGTH FROM	ML TO PL
CO IMP NO	P C NO / JOB NO
TRUNK PERMIT NO	ROAD PERMIT NO
AFFIDAVIT / WAIVER / EASEMENT / RECORD INSTR NO	DATE
HWY OR ST WIDENING	
STATE ENCROACHMENT PERMIT NO	

CHARGES

CONNECTION CHARGE FEE	
REIMBURSEMENT FEE	

DISTRICT NO	GROUP	MAP BK	MAP PG	PROCESSED BY
4105				[signature]

FINAL DATE

FINAL BY

VALIDATION

12'4" from ℄ Manhole + ℄ of abandoned Sewer line.

SEE REVERSE FOR EXPLANATORY LANGUAGE

READ CONDITIONS BELOW

THIS FORM WHEN PROPERLY MACHINE VALIDATED BELOW IS A PERMIT TO DO THE WORK DESCRIBED.

Permittee is hereby authorized to install the work as shown, in accordance with provisions of Ordinance No. 2069 and related Ordinances.
This permit becomes null and void if work is not commenced within 180 days from the date of issuance, or if work is suspected at any time during construction for a period of 180 days, or if any work is done on the said building or structure in violation of the County Ordinances or State laws govering same.

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (*Section 7031.5, Business and Professions Code*): *Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).*:

☐ I, as the owner of the property will do the work, and the structure is not intended or offered for sale. (*Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale*).

I am exempt under Sec. _____

B & P.C. for this reason _____

_____

Date _____

Owner _____

AST/INDUSTRIAL WASTEWATER UNIT CLOSURE REPORT AND REMEDIAL ACTION PLAN BLOOMFIELD II PROPERTY FORMER PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVENUE SANTA FE SPRINGS, CALIFORNIA

City of Santa Fe Springs
Fire Department
Environmental Protection Division

APPROVED FOR THE FOLLOWING PROGRAMS

- [ ] CUPA Programs
- [ ] UFC Article 80
- [ ] Approval Not Required
- [ ] Industrial Waste
- [ ] Domestic Waste Only
- [x] Other Site Mitigation *

Subject to field inspection and required test, notations hereon, conditions in correspondence and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any regulation of the law.

By [signature] Date 2/22/05

PREPARED FOR:
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, California 90670

* The SMP report for the Bloomfield II Property will include copies of Building Dept. permits, disposal documents for contaminated soil, and other documents associated with the RAP.

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

February 8, 2005
Project No. 205372005

February 8, 2005
Project No. 205372005

Mr. Tom Hall
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, California 90670

Subject: AST/Industrial Wastewater Unit
Closure Report and Remedial Action Plan
Bloomfield II Property
Former Plegel Oil Company Lease
12600 Florence Avenue
Santa Fe Springs, California

Dear Mr. Hall:

Ninyo & Moore has performed an Aboveground Storage Tank (AST)/Industrial Wastewater Unit Closure Report and Remedial Action Plan for the above-referenced property. The attached report presents our methodology, findings, conclusions, and recommendations regarding the environmental conditions at the site.

If you have any questions regarding this report, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

PROFESSIONAL GEOLOGIST
PAUL A. ROBERTS
NO. 6897
EXP. 1-06
STATE OF CALIFORNIA

Paul A. Roberts, P.G., R.E.A. I/II
Senior Environmental Geologist

PAR/emp

Distribution: (2) Addressee
(1) Mr. Peter Rooney, Bloomfield Partners II, LLC
(1) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory, LLP

TABLE OF CONTENTS

Page

1. INTRODUCTION 1
2. BACKGROUND 1
3. OBJECTIVES 3
4. AST AND INDUSTRIAL WASTEWATER UNIT REMOVAL 3
   - 4.1. AST Removal and Soil Sampling 3
   - 4.2. Industrial Wastewater Unit Removal and Soil Sampling 4
   - 4.3. Laboratory Results 5
5. HUMAN HEALTH SCREENING EVALUATION 6
   - Exposure Pathways and Media of Exposure 6
   - Exposure Concentrations and Chemical of Concern 7
   - Toxicity Values 7
   - Risk Characterization Summary 7
   - Uncertainty Analysis 7
   - 5.1. Exposure Pathways and Media of Concern 7
   - 5.2. Exposure Concentrations and Chemical of Concern 8
   - 5.3. Risk Characterization Summary 9
   - 5.4. Uncertainty Analysis 9
6. REMEDIAL ACTION PLAN 10
7. SITE RESTORATION 11
8. DISCUSSION 11
9. RECOMMENDATION 12
10. REFERENCE 13

Table

Table 1 – Summary of Soil Samples Collected from the Initial Soil Borings
Table 2 – Summary of Soil Samples Collected Beneath the Former Aboveground Storage Tanks and Industrial Wastewater Unit

Figures

Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Sample Location Map

Appendices

Appendix A – Closure Permits
Appendix B – Non-Hazardous Waste Manifests
Appendix C – Tank Certificate
Appendix D – Sampling Procedures
Appendix E – Laboratory Reports
Appendix F – Documentation Associated with the Human Health Screening Evaluation

1. INTRODUCTION

Bloomfield Partners II, LLC, authorized Ninyo & Moore to perform aboveground storage tank (AST) and Industrial Wastewater Unit closure activities at the former Plegel Oil Company Lease property (referred to as the Plegel lease property or the site) located in the northwestern corner of the Bloomfield II Property in Santa Fe Springs, California (Figures 1 and 2). This report also presents a Remedial Action Plan (RAP) to mitigate the petroleum hydrocarbon and metal impacted soil discovered during these investigations. Work was completed in general accordance with the General Work Plan to Close Aboveground Storage Tanks and Industrial Wastewater Unit dated September 21, 2004, and the Addendum to the General Work Plan dated October 5, 2004. These documents were reviewed and approved by the Santa Fe Springs Fire Department (SFSFD). The Bloomfield II Property and site are currently being redeveloped for commercial purposes.

2. BACKGROUND

The site and Bloomfield II Property have been used as oil production from at least 1923 through the time of this report. Oil wells on the Bloomfield II Property have been reabandoned in preparation of the redevelopment of the property. The site was used by Plegel Oil Company for the production and storage of crude oil. Based on groundwater wells located on the Bloomfield II Property, groundwater has been measured at depths of approximately 95 feet below the ground surface (bgs).

The site currently contains an idle oil well (Hathaway Company "Baker" 27) and a decommissioned and abandoned oil well (Hathaway Company "Baker" 5). The site formerly contained three small ASTs (two containing crude oil and one empty), an older oil/water separator, a newer oil/water separator, two wastewater separators, and a clarifier (Figure 3). Crude oil was pumped from "Baker" 27 and piped to the newer oil/water separator, via underground and aboveground piping (Figure 3). The older oil/water separator was recently taken off line and replaced with the newer oil/water separator. Oil from the separator was pumped into the two ASTs for storage. The ASTs were relatively small, holding approximately 250 barrels of crude oil each (or approxi-

mately 10,500 gallons per AST). According to Mr. Wayne Plegel, owner of Plegel Oil Company, the empty AST was never used to store hazardous materials on site. Based on this information, four ASTs (designated T1 through T4 on Figure 3) were closed as part of the investigations described herein. The ASTs that were closed included the two crude oil tanks, the older oil/water separator, and the newer oil/water separator.

The wastewater generated from the pumping process was diverted through a three stage wastewater system that clarified the water before it was discharged to the city storm drain. Most of the piping associated with the wastewater system was discovered to be aboveground (Figure 3). The first stage of the wastewater system was a metal aboveground tank (referred to as the first stage wastewater separator or T6 on Figure 3). The second stage consists of a concrete lined, belowground "sump" (referred to as the second stage wastewater separator or T5 on Figure 3). During the investigations described herein, this "sump" was discovered to have actually been the cellar for "Baker" 5. The third stage of the wastewater treatment unit was the clarifier located north of the crude oil ASTs (referred to as T7 on Figure 3). Based on this information, the industrial wastewater unit that was closed included the first stage wastewater separator, the second stage wastewater separator, and the clarifier.

As part of the real estate due diligence, in December 2003 and January 2004, Bloomfield Partners II, LLC, retained Ninyo & Moore to conduct a subsurface investigation in the vicinity of the ASTs and wastewater treatment area. As presented on Figure 3, Ninyo & Moore advanced 14 soil borings to depths of up to 65 feet bgs. Laboratory results indicated concentrations of petroleum hydrocarbons and lead that exceeded the Santa Fe Springs Fire Department (SFSFD) Draft Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, "Draft 64" (referred to herein as the "SFSFD guidelines"). Ninyo & Moore prepared and submitted a report dated February 13, 2004, to the SFSFD documenting these findings. Ninyo & Moore has also prepared a Soil Management Plan (SMP) dated June 17, 2004, that outlines the scope of work to investigate and remediate "unknown environmental features" that might be encountered during grading activities. The SMP was reviewed and approved by the SFSFD on June 29, 2004.

On September 10, 2004, Ninyo & Moore met with Mr. Hall to discuss the proposed scope of work to close the subject ASTs and industrial wastewater unit. Because impacted soil is known to exist, it was agreed upon by Ninyo & Moore and the SFSFD that closure procedures would be completed, including the collection of the confirmation soil samples as described herein, following which, all of the laboratory data would be evaluated and this report/RAP would be prepared.

3. OBJECTIVES

The objective of the work described in this report was to close the ASTs and industrial wastewater unit in accordance with current regulatory guidelines. The objective of the RAP is to mitigate the petroleum hydrocarbon and metal impacted soil discovered at the site by excavation.

4. AST AND INDUSTRIAL WASTEWATER UNIT REMOVAL

Bloomfield Partners II, LLC, retained Reliable Equipment Rental (Reliable) to clean and remove the ASTs and industrial wastewater unit at the site. Ninyo & Moore completed the confirmation soil sampling under the direction of Mr. Tom Hall of the SFSFD. The sampling was completed by Mr. Paul A. Roberts, a California Registered Geologist from Ninyo & Moore. Soil samples were collected in accordance with Environmental Protection Agency (EPA) Method No. 5035. The soil lithology encountered during this investigation consisted of silty fine sand. The following describes the removal activities.

4.1. AST Removal and Soil Sampling

Prior to commencement of the removal activities, Ninyo & Moore obtained an approved permit from the SFSFD. A copy of the permit is provided in Appendix A. Reliable triple-rinsed the ASTs and industrial wastewater unit using a pressure washer prior to removal. The rinsate, accompanied by a non-hazardous waste manifest, was transported to DeMenno Kerdoon of Compton, California, for recycling (Appendix B). Following removal of the rinsate contents, Reliable retained an Industrial Hygienist from CTL Environmental Services to certify the ASTs as non-hazardous. A copy of the Tank Certification is presented in Appendix C.

Reliable removed the ASTs on November 30, 2004. Ninyo & Moore collected soil samples associated with the ASTs and associated piping on November 30, 2004, and December 1, 2004. Soil sampling was completed in accordance with our approved work plan and addendum. Field procedures are presented in Appendix D. Three test pits were excavated beneath both of the larger crude oil ASTs (T1 and T2) and two test pits were excavated in the vicinity of the both of the two aboveground oil/water separators (T3 and T4, Figure 3). Samples P1-1 through P1-6 were collected beneath the underground portion of the crude oil pipeline leading from "Baker" 27 to the oil/water separator (Figure 3). No soil samples were collected beneath the aboveground portions of this piping run.

Soil samples were collected at depths of approximately 2, 5, and 10 feet bgs from each test pit. Petroleum hydrocarbon stained and odorous soil was encountered in test pits excavated along the western portion of the large crude oil ASTs (i.e., test pits T1-1, T1-2, T2-1, and T2-3) and in sample P1-6, collected beneath the associated pipeline (Figure 3). No petroleum hydrocarbon odor or staining was noted in samples collected from test pits excavated on the eastern sides of the ASTs or under the oil/water separators (i.e., test pits T1-3, T2-3, T3-1, T3-2, T4-1, and T4-2). No staining or odors were noted in the remaining samples collected beneath the associated pipeline (i.e., P1-1 through P1-5).

4.2. Industrial Wastewater Unit Removal and Soil Sampling

The aboveground steel tank associated with the first stage wastewater separator was removed on November 30, 2004, during the removal of the ASTs. During the rinsing and removal of liquids in the second stage wastewater separator, Reliable discovered "Baker" 5. This separator was originally constructed as the cellar for this oil well. "Baker" 5 was reabandoned by others at this time.

Confirmation soil sampling was completed on January 27, 2005, after the abandonment of "Baker" 5 and the removal of the second stage wastewater separator and clarifier. The second stage wastewater separator extended to a depth of approximately 8 feet bgs, and

confirmation samples were collected at approximately 9 feet bgs (T5-1 and T5-2). Petroleum hydrocarbon stained and odorous soil was noted in both soil samples.

Because the first stage wastewater separator was an aboveground feature, confirmation soil samples were collected at depths of approximately 2 feet bgs (T6-1 and T6-2). A slight petroleum hydrocarbon odor and no staining were noted in sample T6-1, and no staining or odor was noted in sample T6-2.

During removal of the three stage clarifier, the clarifier was noted to be approximately 3.5 feet in depth. In the previously prepared work plan, the depth of the clarifier was misrepresented at a depth of approximately 8 feet bgs. Soil samples collected at approximately 4 feet bgs within the excavation (T7-1 and T7-2) did not show signs of staining or odors. Reliable is planning to cut and cap the effluent pipeline at the on-site sewer manhole (Figure 3). Work will be conducted under the approved permit and oversight of the Santa Fe Springs Building Department. Copies of the signed permit will be forwarded upon receipt.

4.3. Laboratory Results

As per the approved work plan, selected soil samples were analyzed by State-certified laboratories for total petroleum hydrocarbons as gasoline C_4-C_{12} (TPHg), total petroleum hydrocarbons carbon chain C_{10}-C_{32} (which included total petroleum hydrocarbons as diesel fuel C_{13}-C_{22} [TPHd] and total petroleum hydrocarbons as oil C_{23}-C_{32} [TPHo]), volatile organic compounds (VOCs), polynuclear aromatics (PNAs), and Title 22 metals in general accordance with EPA Method Nos. 8015 (modified), 8260B, 8270C, and 6010/7000 series. A summary of the laboratory results are presented on Table 2 and copies of the laboratory reports are provided in Appendix E.

Soil samples collected at depths of approximately 2 feet bgs within each test pit and confirmation samples collected beneath the industrial wastewater unit and pipeline were analyzed for the above described constituents. As presented on Tables 1 and 2 and based on all of the investigations conducted at the site to date, limited areas have been identified that contain

elevated concentrations of petroleum hydrocarbons (either TPHg and/or TPHd), metals (copper and/or lead), and/or naphthalene.

5. HUMAN HEALTH SCREENING EVALUATION

Naphthalene is a chemical that is associated with petroleum hydrocarbons, namely crude oil. Naphthalene has recently been classified as a carcinogen by the Federal EPA. Due to this classification, the Preliminary Remediation Goal for residential use (PRGr) value for naphthalene has been reduced from 56 milligrams per kilogram (mg/kg) to 1.7 mg/kg.

Most of the soils that contain elevated concentrations of naphthalene also contain elevated concentrations of petroleum hydrocarbons, and therefore, will be removed from the site as part of the excavation activities. However, some lower concentrations of naphthalene are proposed to be left in place along with the soils that contain low concentrations of petroleum hydrocarbons. To assess whether these lower concentrations of naphthalene can be left in place, Ninyo & Moore completed a Human Health Screening Evaluation (HHSE) based on site conditions and the conservative residential standards.

This section describes the human health screening evaluation and the estimated potential chronic health hazard from post-remedial residual contamination at the site. The objective of this evaluation is to determine if further risk assessment or additional site remediation, land covenants, or other administrative and/or engineering controls are needed to protect future occupants from the remaining concentrations of naphthalene planned to be left on site. The HHSE was completed in general accordance with the Department of Toxic Substances Control (DTSC) Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Interim Final). Documentation associated with the completion of the HHSE is presented in Appendix F. This evaluation consists of five major steps described below.

Exposure Pathways and Media of Exposure – This step includes developing a Conceptual Site Model (CSM) to evaluate the potential exposure pathways, the media of exposure, and the receptor populations (see Appendix F). The CSM describes the sources of contamination, the release

mechanism, the transport mechanism, the transport media, the exposure point, the routes of exposure, and the receptor population for possible scenarios of contaminant exposure. The model discriminates complete pathways from incomplete pathways for the various routes of exposure.

Exposure Concentrations and Chemical of Concern – This step describes the chemicals of concern (COC) (naphthalene) identified through the site characterization program, evaluates the physical and chemical characteristics of the compound used in the exposure assessment, and provides the rationale for including the COC from the human health screening evaluation process.

Toxicity Values – This step assesses the toxicity of the compound and describes the relevant and significant human toxicity data compiled from various sources.

Risk Characterization Summary – This step integrates the results of the exposure assessment and the toxicity assessment to quantify the risk and hazard from the COC. The risk and hazard is summed for all complete exposure pathways.

Uncertainty Analysis – This step summarizes the basic assumptions and uncertainties of the human health screening evaluation.

5.1. Exposure Pathways and Media of Concern

Based on the Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Interim Final), the human health screening evaluation considered the excess cancer risk (ECR) and non-carcinogenic hazard to an adult for the future site use as a residence. This scenario assumes an exposure duration of 30 years at an exposure frequency of 350 days/year, averaged over 70 years for the cancer risk and averaged over 30 years for the non-cancer hazard. The major route of exposure considered in this HHSE was inhalation of volatile organic compounds (i.e., naphthalene).

The CSM, presented in Figure F, shows the relationship between the contaminant sources, exposure pathways, and potential receptors for the site. The source-pathway-receptor rela-

tionships provide the basis for the quantitative exposure assessment. Only complete source-pathway-receptor relationships are included in this human health screening evaluation.

Based on the knowledge that depth to groundwater at the site is approximately 95 feet bgs, and that groundwater is not used for municipal use, there is no complete pathway for ingestion or absorption. In addition, and as presented in the SFSFD guidelines, the upper 2 feet of soil at final grade is required to be free of petroleum hydrocarbons based on visual and olfactory evidence. Therefore, ingestion or dermal contact with contaminated soil is not a complete pathway. Based on this information, the complete or potentially complete exposure pathway is the inhalation of VOCs migrating from soil to receptors inside a building (i.e., indoor air).

5.2. Exposure Concentrations and Chemical of Concern

Based on site characterization data, the COC was identified as naphthalene. The highest concentrations of naphthalene in soil that will not be excavated during the site remediation were used to estimate the exposure point concentrations (EPC). To obtain the worst case scenario, the site characterization data used to assess exposure from inhalation of naphthalene vapors considered the impacted soils being located at a depth of approximately 2 feet bgs, below the "clean" soil that is required by the SFSFD.

The data used during this evaluation is summarized below.

Sample	Concentration (mg/kg)	Depth
POL2-25	3	25
T1-1	9.3	2
T5-1	17	9

The subsections below briefly describe the methodology used to estimate the ECR and hazard quotient (HQ, which is a measure of the non-cancer hazard to the organism) for inhalation of naphthalene vapors inside a building.

The DTSC modified Johnson & Ettinger 2003 model (SG_SCREEN) was used to calculate the ECR and HQ from inhalation of naphthalene in indoor air. The input parameters included the Chemical Abstracts Service (CAS) number, the calculated soil gas concentration at the source, the depth of the source, and the average soil temperature. All other parameters were set to default for a slab-on-grade structure. The default value for the average vapor flow rate into the building of 5 liters/minute was used in the model. For source concentrations in soil, the soil gas concentration in equilibrium in a three phase system was calculated using Equation 1 on page 6 of the User's Guide for Evaluation of Subsurface Vapor Intrusion into Buildings (EPA, 2003). For each sample concentration, SG_SCREEN was run to calculate the ECR and the HQ. The results of the SG_SCREEN runs are presented in Appendix F.

5.3. Risk Characterization Summary

The cumulative ECR and HQ for each sample concentration were calculated and are summarized in the Tables presented in Appendix F. The results are compared to the acceptable risk for the specified future site use (1E-06 for ECR and 1 for HQ) and are discussed below.

The highest indoor air inhalation risk was quantified as 1.8E-07 (ECR) and 4.2E-03 (HQ). The ECR is comparable to the acceptable risk value considering the inherent conservative uncertainty in the default values used to calculate the ECR (see the uncertainty section). The calculated HQ is well below the target HQ of 1.

5.4. Uncertainty Analysis

The HHSE was based on assumptions intended to overestimate risks to provide a conservative estimate of potential health effects. These conservative assumptions include:

- Use of the maximum detected concentration of a contaminant as the exposure concentration.
- Discounting the attenuation and/or dilution of contaminants during transport from the secondary source to the receptor.

- The toxicity values used to calculate the cancer risk and hazard quotient and obtained from the referenced source have built-in factors of conservatism.
- Factors such as averaging time, exposure duration are overestimated as the likelihood of actual continuous chronic exposure averaged over the receptors lifetime for the exposure pathways of incidental ingestion of soil or dermal contact are very low.
- Residential standards.
- The risk calculation does not account for a reduced contaminant intake based on reduced bioavailability.

The calculated risk values are therefore, inherently conservative, and may overestimate risks by one or more orders of magnitude. In summary, the inhalation risk from the sample concentrations of naphthalene that is representative of the residual contamination is acceptable. Based on the results of this HHSE, the concentrations of naphthalene proposed to be left in place would not pose a health risk to future occupants of the site.

6. REMEDIAL ACTION PLAN

Based on the laboratory data collected to-date and the RA described above, the following areas are proposed to be mitigated by excavation. The following presents the areas to be excavated and the COCs found in each area. Ninyo & Moore proposes to excavate the impacted soil in each of these areas, following which confirmation samples will be collected and analyzed for the appropriate COC. Confirmation samples will include, at a minimum, one sample per wall and one floor sample from each excavation. The anticipated extent of the excavations associated with each area is shown on Figure 3. The depth and lateral extent may vary depending on the results of confirmation samples. Additional sampling may be warranted if the excavations exceed the areas shown on Figure 3. If needed, the number of confirmation samples will be discussed and agreed upon between Ninyo & Moore and the SFSFD prior to sample collection.

- **Boring POL1** – Laboratory results indicated elevated concentrations of total lead in a soil sample collected at a depth of approximately 5 feet bgs. Laboratory results of the soil sample collected at approximately 10 feet bgs in this boring indicated low concentrations of total lead (Table 1). The depth of the excavation is expected to be less than 7 to 8 feet bgs. Confirmation samples will be analyzed for total lead.

- **Boring POL2 and Confirmation Sample T5-2** – Laboratory results of a soil sample collected at a depth of approximately 15 feet bgs in boring POL2 indicated elevated concentrations of TPHg and TPHd. Laboratory results of the soil sample collected at 20 feet bgs in this boring indicated no detectable to low concentrations of TPHg and TPHd (Table 1). Shallower samples collected in the vicinity of this boring (see sample T5-2-9 on Table 2, collected at 9 feet bgs) also indicated elevated concentrations of TPHd and naphthalene. Soils will be excavated to anticipated depths of approximately 17 to 18 feet bgs. Confirmation samples will be analyzed for TPHg, TPHd, and naphthalene.

- **Boring POL3** – Laboratory results of a soil sample collected at approximately 10 feet bgs indicated elevated concentrations of TPHg and naphthalene (Table 1). The 5- and 15-foot samples collected from this boring indicated no detectable to low concentrations of TPHg and naphthalene. Following removal of the clean overburden to depths of approximately 5 to 7 feet bgs, the impacted soils will be excavated to an anticipated depth of approximately 12 to 13 feet bgs. Confirmation samples will be analyzed for TPHg and naphthalene.

- **Pipeline P1-1** – Laboratory results of a soil sample collected at a depth of approximately 2.5 feet bgs indicated elevated concentrations of total lead, exceeding the PRGr value. Because total copper exceeded ten times the Soluble Threshold Limit Concentration (STLC), soluble copper was analyzed using the Waste Extraction Test (WET) method. Laboratory results indicated elevated concentrations of soluble copper. The depth of the excavation is expected to be less than 5 feet bgs. The confirmation samples will be analyzed for total lead and total copper.

- **Pipeline P1-5** – Laboratory results of a soil sample collected at a depth of approximately 1.5 feet bgs indicated elevated concentrations of total lead, exceeding ten times the STLC and the PRGr value. Further analysis indicated elevated concentrations of soluble lead using the WET method. The depth of the excavation is expected to be less than 3 feet bgs. The confirmation samples will be analyzed for total lead.

7. SITE RESTORATION

Following the excavation of the impacted soils, the excavations will be backfilled with imported soils and/or on-site soils. The areas will be compacted and a compaction report will be provided to the General Contractor as part of the grading and redevelopment activities.

8. DISCUSSION

The ASTs and industrial wastewater unit previously used on the site have been removed. Based on the results of an initial soil boring investigation and subsequent confirmation soil samples col-

lected following removal activities, five areas of petroleum hydrocarbon, metal, and/or naphthalene impacted soils were discovered. Because the areas appear to be limited in volume, Ninyo & Moore proposes to excavate and remove the impacted soils. Following completion of the excavation activities, a soil remediation report will be prepared and submitted to the SFSFD. The report will request that a no further action (NFA) letter be issued for the ASTs and industrial wastewater unit by the SFSFD.

Naphthalene is a chemical that is associated with petroleum hydrocarbons. The proposed excavation activities will mitigate most of the soils that contain elevated concentrations of naphthalene during the removal of the soils that contain elevated concentrations of petroleum hydrocarbons. However, some soils that contain lower concentrations of naphthalene and petroleum hydrocarbons will be left in place. Based on the results of the HHSE completed for naphthalene using residential standards, the concentrations of naphthalene proposed to be left in place would not pose a health risk to future occupants of the site.

9. RECOMMENDATION

Based on the chemical data collected at the site and the limited RA completed for naphthalene, Ninyo & Moore recommends that soils containing elevated concentrations of petroleum hydrocarbons, metals, and naphthalene be excavated and removed from the site. The soils containing lower concentrations of chemicals below regulatory and/or HHSE standards can be left in place.

10. REFERENCE

Ninyo & Moore, 2004a, Results of Subsurface Investigation, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Letter report prepared for SARES-REGIS Group, Irvine, California, dated February 13.

Ninyo & Moore, 2004b, General Work Plan to Close Aboveground Storage Tanks and Industrial Wastewater Unit, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Work plan prepared for the Santa Fe Springs Fire Department, Santa Fe Springs, California, dated September 21.

Ninyo & Moore, 2004c, Addendum to the General Work Plan dated September 21, 2004, Bloomfield II Property, Plegel Oil Company Lease, Santa Fe Springs, California: Addendum to the work plan prepared for the Santa Fe Springs Fire Department, Santa Fe Springs, California, dated October 5.

Regional Water Quality Control Board, Los Angeles Region, 1996, Interim Site Assessment & Cleanup Guidebook, dated May.

United States Environmental Protection Agency (USEPA), 2003, Vapor Intrusion and RCRA Corrective Action (CA), Environmental Indicators (EI) Fact Sheets, Office of Emergency and Remedial Response, dated June 17.

TABLE 1 - SUMMARY OF SOIL SAMPLES COLLECTED FROM THE INITIAL SOIL BORINGS

Sample Number	Sample Depth (ft-bgs)	TPHcc			VOCs (mg/kg)	Title 22 Metals (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead TCLP (mg/l)
		$<C_{12}$ (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)				
POL1-5	5	99	650	2,220	ND	**Arsenic 14** **Lead 520**	4.2	2.4
POL1-10	10	--	--	--	--	Arsenic 11 Lead 5	--	--
POL1A-10	10	ND	ND	ND	--	--	--	--
POL1A-15	15	ND	ND	95	--	--	--	--
POL1A-20	20	ND	ND	23	--	--	--	--
POL1A-25	25	ND	ND	ND	--	--	--	--
POL1-30	30	ND	ND	ND	ND	<PRGr and/or background	--	--
POL2-15	15	**2,600**	**8,800**	9,300	1,2,4-Trimethylbenzene 0.15 1,3,5-Trimethylbenzene 0.0056 Ethylbenzene 0.037 4-Isopropyltoluene 0.041 Isopropylbenzene 0.097 n-Propylbenzene 0.16 n-Butlybenzene 0.069 sec-Butylbenzene 0.11 tert-Butylbenzene 0.0083 Napthalene 0.41 Xylenes 0.012	<PRGr and/or background	--	--
POL2-20	20	ND	29	22	ND	--	--	--
POL2-25	25	310	2,000	1,500	sec-Butylbenzene 0.62 **Napthalene 3.0**	--	--	--
POL2-30	30	ND	ND	ND	ND	--	--	--
POL2A-35	35	ND	ND	ND	--	--	--	--
POL2A-40	40	ND	ND	ND	--	--	--	--
POL2A-45	45	ND	ND	ND	--	--	--	--
POL2A-50	50	ND	ND	ND	--	--	--	--

TABLE 1 - SUMMARY OF SOIL SAMPLES COLLECTED FROM THE INITIAL SOIL BORINGS

Sample Number	Sample Depth (ft-bgs)	TPHcc			VOCs (mg/kg)	Title 22 Metals (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead TCLP (mg/l)
		$<C_{12}$ (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)				
POL3-5	5	470	1,650	1,440	Isopropylbenzene 0.22 n-Propylbenzene 0.31 n-Butlybenzene 0.011 sec-Butylbenzene 0.089 Napthalene 0.40	--	--	--
POL3-10	10	**2,200**	6,300	6,900	n-Propylbenzene 0.57 n-Butlybenzene 0.69 sec-Butylbenzene 2.8 **Napthalene 7.0**	--	--	--
POL3-15	15	ND	ND	ND	ND	--	--	--
POL3A-20	20	ND	ND	ND	--	--	--	--
POL3A-25	25	ND	ND	ND	--	--	--	--
POL3A-30	30	ND	ND	ND	--	--	--	--
POL3A-35	35	ND	52	20	--	--	--	--
POL4-5	5	ND	580	5,100	--	--	--	--
POL5-5	5	ND	ND	340	ND	<PRGr and/or background	--	--
POL5-20	20	ND	ND	ND	ND	--	--	--
POL6-5	5	ND	ND	ND	--	--	--	--
POL6-10	10	ND	ND	ND	--	--	--	--
POL7-5	5	ND	ND	ND	ND	--	--	--
POL7-20	20	ND	ND	ND	ND	--	--	--
POL8-5	5	ND	ND	ND	ND	--	--	--
POL8-20	20	ND	ND	ND	ND	--	--	--
POL9-5	5	ND	ND	ND	--	--	--	--
POL10-5	5	ND	ND	ND	ND	--	--	--
POL10-20	20	ND	ND	ND	ND	--	--	--
POL11-5	5	ND	ND	ND	ND	--	--	--
POL11-20	20	ND	ND	ND	ND	--	--	--

TABLE 1 - SUMMARY OF SOIL SAMPLES COLLECTED FROM THE INITIAL SOIL BORINGS

Sample Number	Sample Depth (ft-bgs)	TPHcc			VOCs (mg/kg)	Title 22 Metals (mg/kg)	Soluble Lead WET (mg/l)	Soluble Lead TCLP (mg/l)
		$<C_{12}$ (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)				
Maximum Soil Screening Levels		**1,600**	**7,500**	**36,000**	1,2,4-Trimethylbenzene 52/NA 1,3,5-Trimethylbenzene 28/NA Ethylbenzene 8.9/7 4-Isopropyltoluene NA/NA Isopropylbenzene NA/NA n-Butylbenzene 240/NA n-Propylbenzene 240/NA sec-Butylbenzene 220/NA tert-Butylbenzene 390/NA Naphthalene 1.7/NA Xylenes 270/20	Lead: PRGr – 150 TTLC – 1,000 STLC – 5 10 x STLC – 50	STLC - 5	TCLP - 5

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000
WET – Waste Extraction Test
TCLP – Toxicity Characterisitc Leaching Procedure
Maximim soil screening levels obtained from the Interim Site Assessment & Cleanup Guidebook dated May 1996 by the California Regional Water Quality Control Board
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
"--" – not analyzed
Maximim soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
Maximum soil screening level for VOCs are presented in PRGr values/RWQCB values (using Table 4-1, for the conservative values of sandy conditions at 80 feet above groundwater)
PRGr – Preliminary Remediation Goal for residential use
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)

TABLE 2 – SUMMARY OF SOIL SAMPLES COLLECTED BENEATH THE FORMER ABOVEGROUND STORAGE TANKS AND INDUSTRIAL WASTEWATER UNIT

Sample No.	Location	Depth (ft bgs)	TPH_{CC} C_4-C_{12} (mg/kg)	TPH_{CC} C_{13}-C_{22} (mg/kg)	TPH_{CC} C_{23}-C_{32+} (mg/kg)	VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)	Soluble metals WET analysis (mg/l)	Soluble lead TCLP analysis (mg/l)
T1-1	Test Pit 1 Excavated Beneath Tank 1	2	41	6,900	9,300	Isopropylbenzene 1.9 Propylbenzene 2.8 n-Butylbenzene 0.61 sec-Butylbenzene 1.3 **Naphthalene 9.3**	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T1-2	Test Pit 2 Excavated Beneath Tank 1	2	ND	31	340	ND	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T1-3	Test Pit 3 Excavated Beneath Tank 1	2	ND	35	430	ND	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T2-1	Test Pit 1 Excavated Beneath Tank 2	2	15	2,490	3,690	1,2,4-Trimethylbenzene 0.250 1,3,5-Trimethylbenzene 0.028 Ethylbenzene 0.016 4-Isopropyltoluene 0.017 Isopropylbenzene 0.033 n-Propylbenzene 0.045 n-Butylbenzene 0.012 sec-Butylbenzene 0.017 Naphthalene 0.110 Xylenes 0.059	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T2-2	Test Pit 2 Excavated Beneath Tank 2	2	ND	104	85	ND	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T2-3	Test Pit 3 Excavated Beneath Tank 2	2	ND	ND	32	ND	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T3-1	Test Pit 1 Excavated Beneath Tank 3	2	ND	ND	32	ND	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T3-2	Test Pit 2 Excavated Beneath Tank 3	2	ND	ND	36	ND	< PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T3-3	Test Pit 3 Excavated Beneath Tank 3	2	--	--	--	--	--	--	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T4-1	Test Pit 1 Excavated Beneath Tank 4	2	ND	19.6	55	ND	<PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--
T4-2	Test Pit 2 Excavated Beneath Tank 4	2	ND	4	9.8	ND	<PRGr and/or background	ND	--	--
		5	--	--	--	--	--	--	--	--
		10	--	--	--	--	--	--	--	--

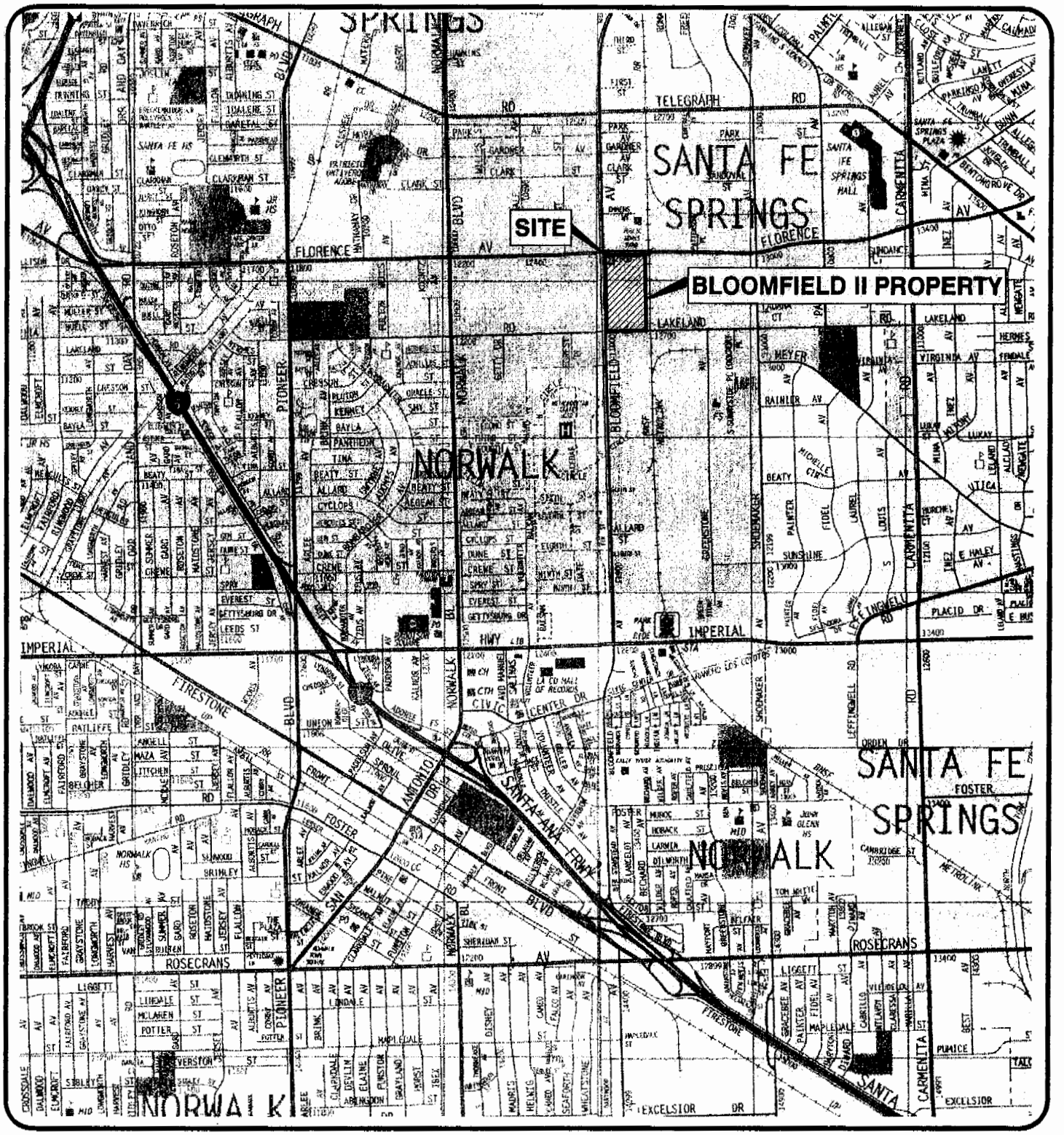
TABLE 2 – SUMMARY OF SOIL SAMPLES COLLECTED BENEATH THE FORMER ABOVEGROUND STORAGE TANKS AND INDUSTRIAL WASTEWATER UNIT

Sample No.	Location	Depth (ft bgs)	TPH_{CC}			VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)	Soluble metals WET analysis (mg/l)	Soluble lead TCLP analysis (mg/l)
			C_4-C_{12} (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)					
T5-1	Beneath 2nd Stage Wastewater Separator	9	440	6,000	4,300	Ethylbenzene 0.027 Isopropylbenzene 0.14 n-Butylbenzene 0.038 sec-Butylbenzene 0.11 n-Propylbenzene 0.23 **Naphthalene 16**	<PRGr and/or background	2-Methylnaphthalene 53 **Naphthalene 17**	--	--
T5-2	Beneath 2nd Stage Wastewater Separator	9	4.5	7,700	6,100	1,2,4-Trimethylbenzene 0.17 Ethylbenzene 0.11 4-Isopropyltoluene 0.045 Isopropylbenzene 0.26 n-Propylbenzene 7.2 n-Butylbenzene 0.058 sec-Butylbenzene 0.18 **Naphthalene 28**	<PRGr and/or background	2-Methylnaphthalene 60 **Naphthalene 22**	--	--
T6-1	Beneath 1st Stage Wastewater Separator	2	1.2	83	440	ND	<PRGr and/or background	ND	--	--
T6-2	Beneath 1st Stage Wastewater Separator	2	ND	15	32	ND	<PRGr and/or background	ND	--	--
T7-1	Beneath Clarifier	4	ND	13	77	ND	<PRGr and/or background	ND	--	--
T7-2	Beneath Clarifier	4	3.2	17	49	1,2,4-Trimethylbenzene 0.031 1,3,5-Trimethylbenzene 0.012 Benzene 0.023 Toluene 0.016 Naphthalene 0.014 Xylenes 0.10	<PRGr and/or background	ND	--	--
P1-1	Beneath Pipeline 1	2.5	ND	220	900	ND	Copper 1,500 **Lead 200** All Others <PRGr and/or background	ND	**Copper 56.2** Lead 4.82	ND
P1-2	Beneath Pipeline 1	2.5	ND	58.5	301.6	ND	Lead 85 All Others <PRGr and/or background	ND	Lead 1.93	--
P1-3	Beneath Pipeline 1	2	ND	61.2	228	ND	Lead 61 All Others <PRGr and/or background	ND	Lead 0.72	--
P1-4	Beneath Pipeline 1	1.5	ND	58.5	320	ND	Lead 74 All Others <PRGr and/or background	ND	Lead 1.60	--
P1-5	Beneath Pipeline 1	1.5	ND	49	302.9	ND	**Lead 230** All Others <PRGr and/or background	ND	**Lead 6.66**	ND
P1-6	Beneath Pipeline 1	1.5	ND	96.7	357.6	ND	Lead 120 All Others <PRGr and/or background	ND	Lead 3.08	ND

TABLE 2 – SUMMARY OF SOIL SAMPLES COLLECTED BENEATH THE FORMER ABOVEGROUND STORAGE TANKS AND INDUSTRIAL WASTEWATER UNIT

Sample No.	Location	Depth (ft bgs)	TPH_{cc}			VOCs (mg/kg)	Title 22 Metals (mg/kg)	PNAs (mg/kg)	Soluble metals WET analysis (mg/l)	Soluble lead TCLP analysis (mg/l)
			C_4-C_{12} (mg/kg)	C_{13}-C_{22} (mg/kg)	C_{23}-C_{32+} (mg/kg)					
Maximum Soil Screening Levels			1,600	7,500	36,000	1,2,4-Trimethylbenzene 52/NA 1,3,5-Trimethylbenzene 28/NA Ethylbenzene 8.9/7 4-Isopropyltoluene NA/NA Isopropylbenzene NA/NA n-Propylbenzene 240/NA n-Butylbenzene 240/NA sec-Butylbenzene 220/NA 2-Methylnaphthalene NA/NA Benzene 0.6/0.033 Naphthalene 1.7/NA Xylenes 270/20	Copper: PRGr – 3,100 TTLC – 2,500 STLC – 25 10 x STLC – 250 Lead: PRGr – 150 TTLC – 1,000 STLC – 5 10 x STLC – 50	NA	Copper: STLC - 25 Lead: STLC-5	Lead 5

Notes:
ft bgs – feet below ground surface
TPHcc – Total Petroleum Hydrocarbon Chain Identification analyzed by EPA Method 8015 modified
VOCs – Volatile Organic Compounds analyzed by EPA Method 8260B
Title 22 Metals – analyzed by EPA Method 6010/7000 Series
PNAs – poly nuclear aromatic hydrocarbons analyzed by EPA Method No. 8270B
WET – waste extraction test
TCLP – toxicity characteristic leaching procedure
PRGr – Preliminary Remediation Goal for residential use
Maximim soil screening levels obtained from the City of Santa Fe Springs Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, the Regional Water Quality Control Board, Los Angeles Region (RWQCB) Interim Site Assessment & Cleanup Guidebook dated May 1996, or the PRGr values. The negotiated screening level for arsenic is 13 mg/kg.
mg/kg – milligrams per kilogram
mg/l – milligrams per liter
"–" – not analyzed
NA – not applicable
ND – not detected above laboratory reporting limits (see individual laboratory reports for analyte detection limits)
Maximum soil screening level for VOCs are presented in PRGr values/RWQCB values (using Table 4-1, for the conservative values of sandy conditions at 80 feet above groundwater)



205372-A1.DWG

REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

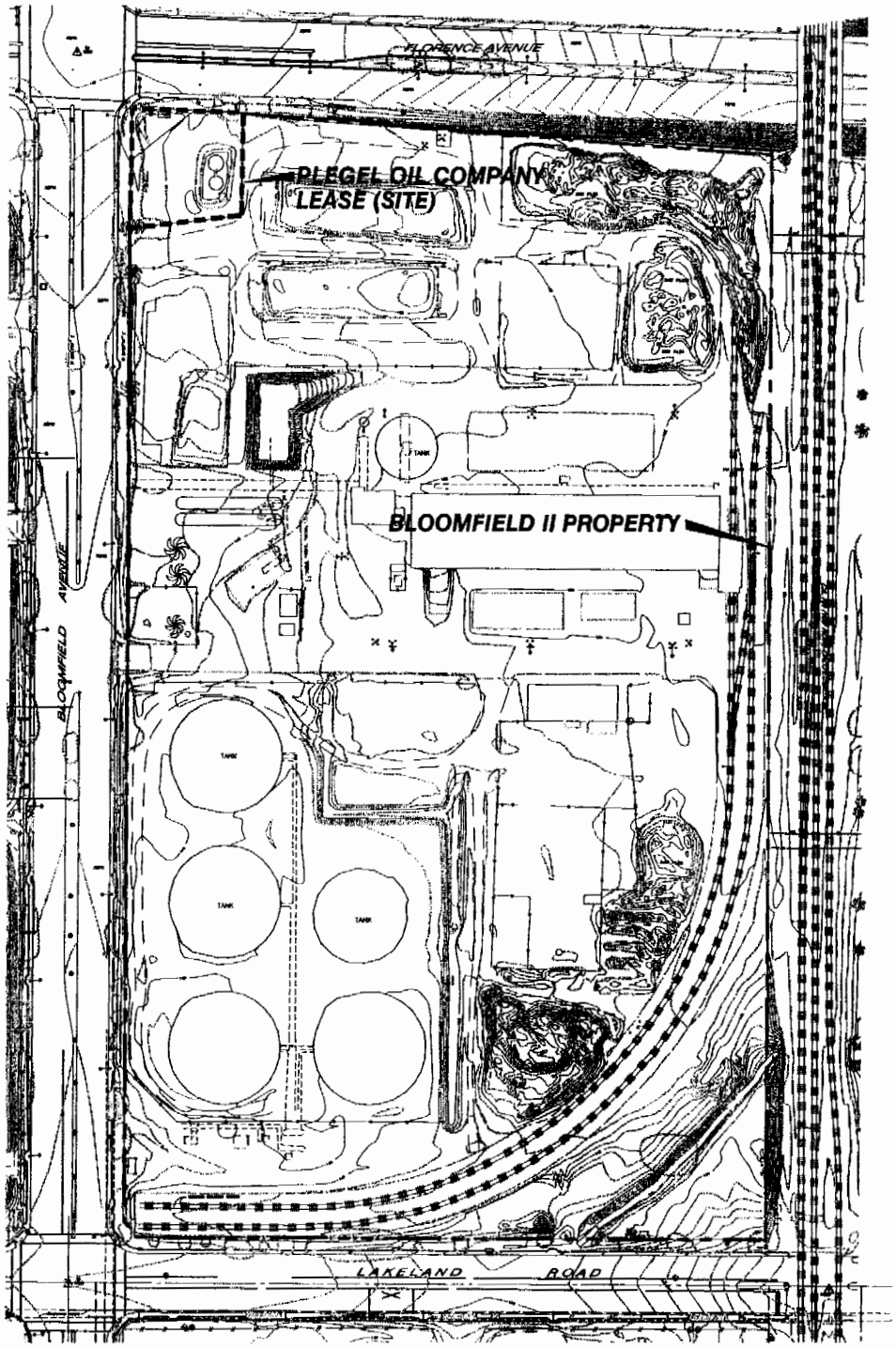
APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	1/2005	1



0 200 400

APPROXIMATE SCALE IN FEET

REEFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

- — - — BLOOMFIELD II PROPERTY BOUNDARY
- - - - - - PLEGEL OIL COMPANY LEASE

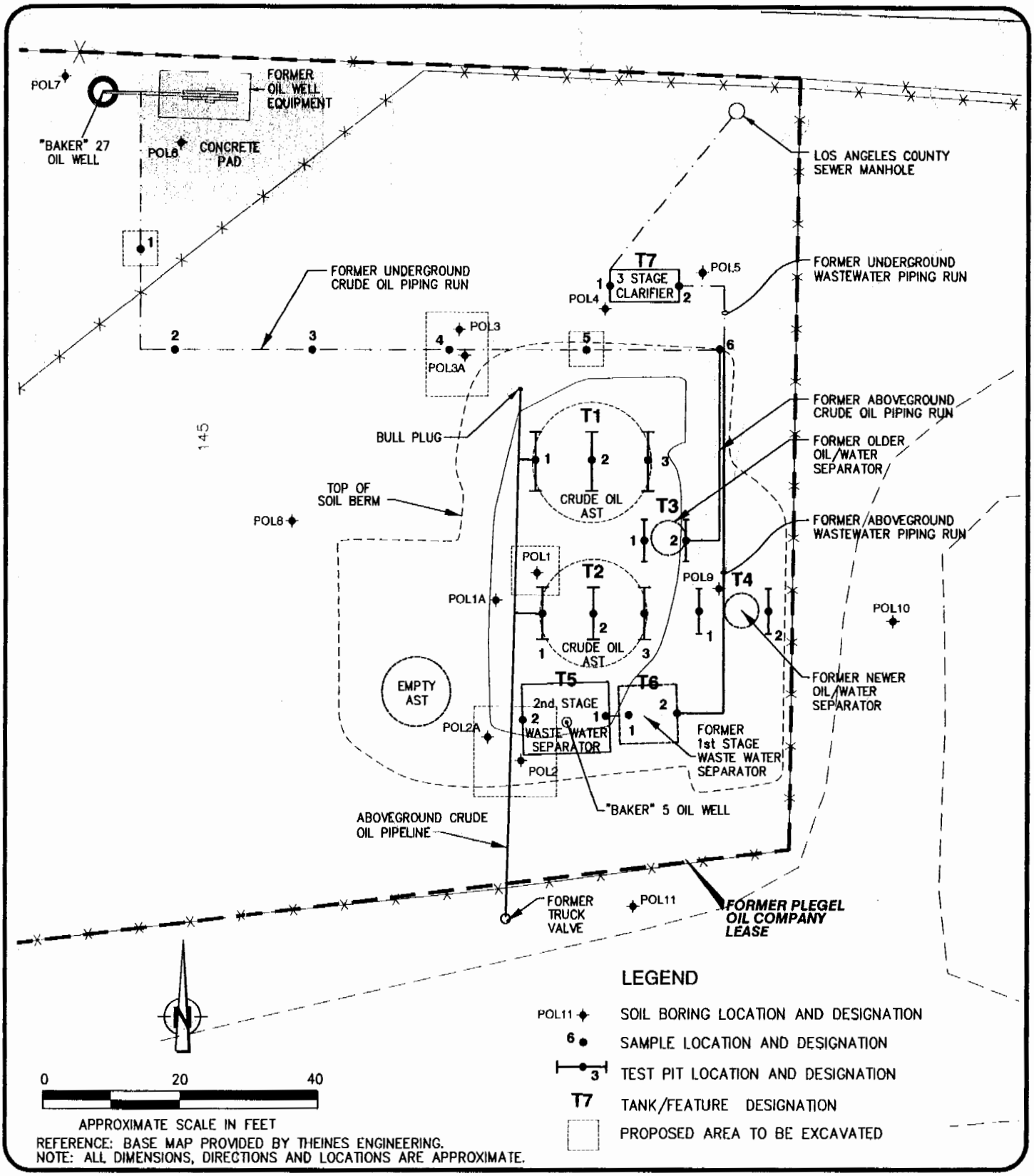
205372-A2.DWG

Ninyo & Moore

SITE PLAN

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	1/2005	2



REFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

SAMPLE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	1/2005	3

APPENDIX A

CLOSURE PERMITS

City of Santa Fe Springs

Headquarters Fire Station

11300 Greenstone Ave. • CA • 90670-4619 • (562) 944-9713 • Fax (562) 941-1817 • www.santafesprings.org

October 6, 2004

Paul Roberts
Ninyo & Moore
475 Goddard
Irvine, CA 92618

Dear Mr. Roberts:

Subject: CLOSURE AUTHORIZATION FOR THE EXISTING 2-STAGE WASTE WATER SEPARATOR AND 3-STAGE CLARIFIER AND @ 12600 FLORENCE AVENUE

Enclosed is your copy of the closure authorization for the removal of the existing 2-stage waste water separator and the 3-stage clarifier located at the Baker Lease oil production site, 12600 Florence Avenue. Compliance with the *Conditions and Limitations* listed on the back of the application and sampling in accordance with the General Work Plan dated September 21, 2004 and amended October 5, 2004 is necessary to ensure proper closure. You are required to schedule a closure inspection 72-hours prior to the removal. Failure to provide proper notification may void this authorization for closure and result in additional site investigation requirements.

The Environmental Protection Division may require additional site investigations if signs of contamination are evident. The permittee is responsible for complying with additional requirements imposed by this Department.

If you have any questions regarding this matter, please contact Tom Hall, Industrial Waste Engineer, at (562) 906-3715

Sincerely,

Thomas Hall
Environmental Protection Specialist

Enclosure

C:\Documents and Settings\THall\My Documents\IW Equipment Closures\Incomplete Closures\Baker Lease IW closure\Closure Authorization (no add ons).doc

C-

City of Santa Fe Springs Fire Department

Fire Protection Division • Environmental Protection Division

11300 Greenstone Avenue • Santa Fe Springs CA 90670-4619 • (562) 944-9713 FAX (562) 941-1817

Industrial Waste Application for Closure

Business Information

Business Name Bloomfield Partners II, LLC			
Company Contact Patrick Russell	Position	Phone number: (949) 756-5959	
Site address 12600 Florence Ave.	City Santa Fe Springs	State CA	Zip
Mailing address 18802 Bardeen Ave	City Irvine	State CA	Zip 92612

Contractor Information

Contractor Name Paul Roberts		Contractor License 697063A	Exp. Date 10/31/04
Company Name Ninyo & Moore		Phone Number (949) 753-7070	
Mailing Address 475 Goddard	City Irvine	State CA	Zip 92618

Type of Closure Requested-All closures under this application must meet the requirements and conditions listed on reverse.

- [x] Treatment unit removal (see conditions A, B, C, E, and F on reverse)
- [ ] Treatment unit abandonment in place (see conditions A, B, C, **D**, and F on reverse)

Description of Waste Generating Operations Being Closed

Type of business Oil production	**IW Permit Number** 15403
Source of wastewater Oil/water separator	
Type of treatment unit Oil/water separator	
Has an unauthorized release ever occurred at this site?	☐ YES ☐ NO
Have structural repairs ever been made to the treatment unit?	☐ YES ☒ NO
Will new treatment unit(s) be installed after closure?	☐ YES ☒ NO
Will industrial waste generating operations remain after closure?	☐ YES ☒ NO
If the answer is YES to any of the above questions, attach an explanation.	

The applicant agrees to submit any additional information necessary to aid in the permit evaluation process. Approved permits may be subject to additional conditions and limitations. An inspection fee may be required upon permit issuance. The applicant's signature certifies under penalty of perjury that all statements and disclosures above are true and correct and that they have read agree to abide by this closure authorization and all conditions and limitations on the reverse side of this form and any additional conditions that may be attached.

Applicant's Name Paul Roberts	Signature **X** Paul Roberts	Date 9-22-04

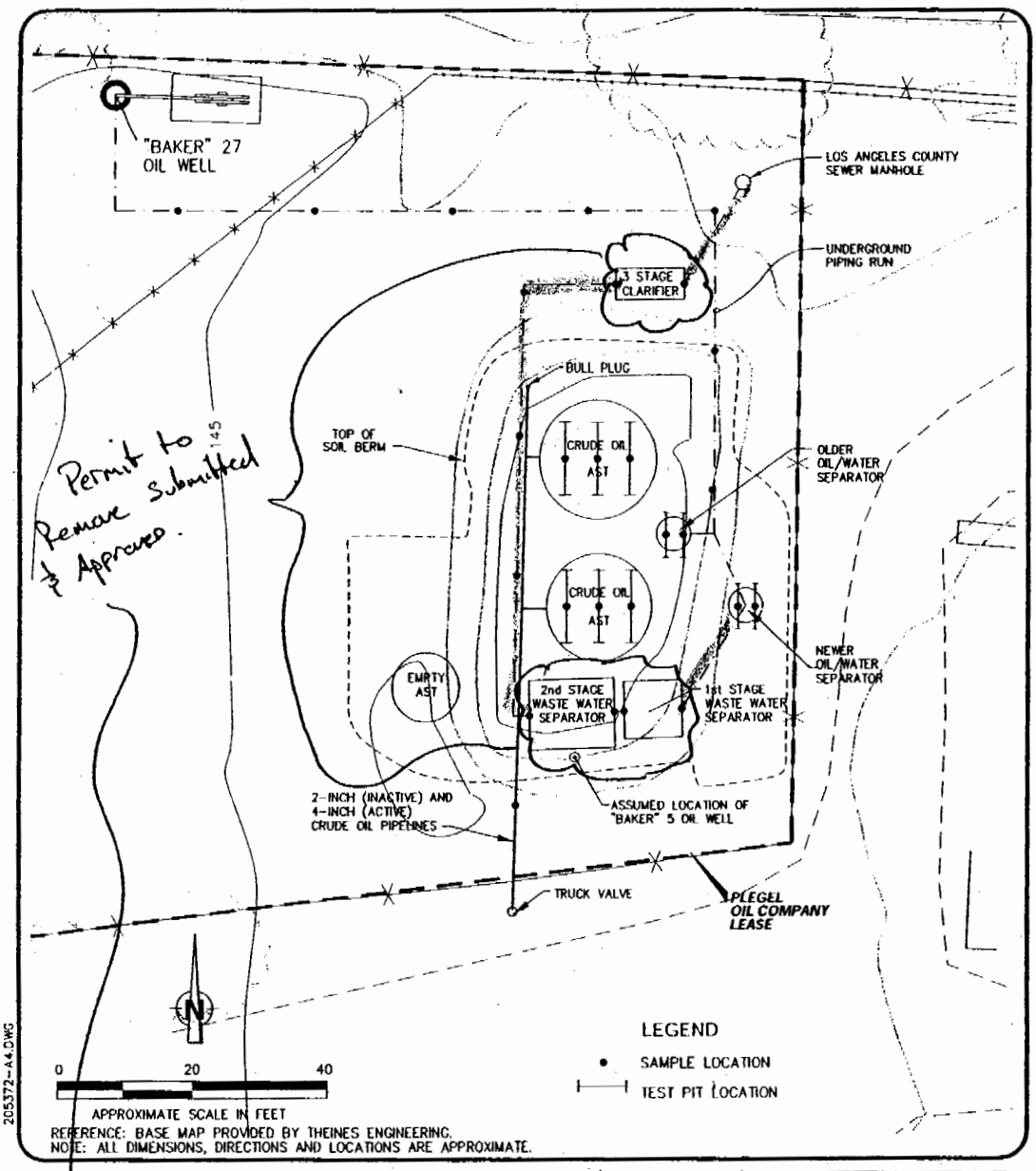
Position ☐ Owner ☐ Operator ☒ Contractor

Return this application, all required plans and supporting information, with the application and plan review fee.

TO BE COMPLETED BY THE SANTA FE SPRINGS FIRE DEPARTMENT

Permission is hereby granted to proceed with the closure described above subject to the attached conditions and limitations. This permit expires 180 days from the date below.

Neal Welland Fire Chief	Inspector Tom Hall		Date Approved 10/5/04
	Fee Amount $150.00	**Date Paid** 9/27/04	**Received By** TMH



Permit to Remove Submitted & Approved.

REFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

PROPOSED SAMPLE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	10/2004	1

City of Santa Fe Springs
Fire Department
Environmental Protection Division

APPROVED FOR THE FOLLOWING PROGRAMS

[redacted] ☒ Industrial Waste – Closure
[redacted]
[redacted]

Subject to field inspection and required test, notations hereon, conditions in correspondence and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any regulation of the law.

By [signature] Date 10/6/04

City of Santa Fe Springs Fire Department • Certified Unified Program Agency
11300 Greenstone Avenue
Santa Fe Springs, CA 90670
Phone (562) 944-9713 • Fax (562) 941-1817

APPLICATION FOR STORAGE TANK CLOSURE

☒ ABOVEGROUND ☐ UNDERGROUND

FACILITY NAME: Former Plegel Oil Lease Property

LOCATION: 12600 Florence Ave.

RESPONSIBLE PARTY INFORMATION:

Name Bloomfield Partners II, LLC

Mailing Address 18802 Bardeen Ave City Irvine State CA Zip 92612

Contact Person Patrick Russell Phone 949-756-5959

☒ CONTRACTOR OR ☐ OWNER/OPERATOR AS CONTRACTOR Please indicate by checking appropriate box. A list of all subcontractors must be provided. List must include subcontractor name, address, phone number, scope of work, and a copy of the contractor's license.

Name Ninyo & Moore State License Number 697063 A

Address 475 Goddard City Irvine State CA Zip 92618

Contact Person Paul Roberts Phone 949-753-7070

CLOSURE REQUESTED: *All closures under this application must meet the requirements and conditions listed below.*

- ☐ Permanent, tank removal, non-hazardous (see condition A attached)
- ☒ Permanent, tank removal, hazardous (see condition B attached)
- ☐ Permanent, closure in place (see condition C attached).
- ☐ Temporary (see condition D attached)
- ☐ Monitoring well abandonment (see Condition E attached)

DATE TANK SYSTEM WILL BE CLEANED AND/OR EXCAVATED, OR CLOSED: _____ INTENDED DISPOSITION OF TANK _____

INTENDED DESTINATION OF TANK SYSTEM (location name and address): _____

COMPLETE THE FOLLOWING:

TANK ID NUMBER (use state tank ID# for underground tanks)	TANK MATERIAL	AGE IN YEARS	CAPACITY	LAST MATERIAL STORED/PAST MATERIAL STORED PER CC4R67383.3(D)1
1	Steel	Unknown	10,500	Crude Oil
2	Steel	Unknown	10,500	Crude Oil
3	Steel	Unknown	2,500	Oil/Water
4	Steel	Unknown	2,500	Oil/Water

	YES	NO
Has an unauthorized release ever occurred at this site?	☐	☐
Have structural repairs ever been made to these tanks?	☐	☒
Will new tanks be installed after this closure?	☐	☒

How many tanks will remain after this closure? ASTs 0 USTs 0

By signature below the applicant certifies that they have read, understand, and agree to abide by the Storage Tank Closure Requirements and Conditions, the Notification/Permit Requirements and Contractor's Declaration, the Notice to Closure Permit Applicants, and all other conditions and limitations attached. Additional guidelines are available upon request. By signature below you declare you are authorized to certify on behalf of the tank operator that the identity of the last material or waste stored or accumulated in the tank is true and correct.

Applicant's Signature Paul Roberts Date 9-22-04

Print Name Paul Roberts Phone 949-753-7070

Title(please check): Owner Operator (Contractor)

TO BE COMPLETED BY THE SANTA FE SPRINGS FIRE DEPARTMENT

PERMISSION IS HEREBY GRANTED TO PROCEED WITH THE CLOSURE DESCRIBED ABOVE SUBJECT TO THE ATTACHED CONDITIONS AND LIMITATIONS. THIS PERMIT EXPIRES 180 DAYS FROM THE DATE BELOW.

Neal Welland Inspector [signature] Date Approved 9/30/04

Fire Chief Fee Amount $ 675 Date Paid 9/27/04 Received by [signature]

CLOSURE REPORT REQUIREMENTS

A closure report for storage tanks shall be submitted to the Santa Fe Springs Fire Department containing the items listed below. All closure report requirements must be submitted to the Fire Department within 30 days from the sampling date or 180 days from the data of this permit, whichever is earlier.

Site address of tank closure location.

Plot plan to scale showing the location of tanks, sampling points, buildings, adjacent streets, and a north arrow. Use a legend to identify tank size and past contents.

Description of methods for obtaining, handling, and transporting samples.

Time and date samples were obtained.

Soil sampling certification (including but not limited to soils classification, boring logs, sample procedures, sample locations, initiating chain of custody, and groundwater location) for tank closure shall be certified by a California Registered Geologist, a California Certified Engineering Geologist, or a California Registered Civil Engineer with sufficient experience in soils. The certification must clearly state that all work was done under the supervision of the person signing.

Chain of custody documentation initiated by the person obtaining samples through the person at a Cal/EPA Department of Toxic Substances Control certified laboratory.

Copy of "clean" closure certification signed by a Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional.

8. Copy of Santa Fe Springs Building Department permit. This is required on all underground tank closures and some aboveground tank closures.

9. Disposal destination of tanks and legal evidence of disposal. Include copy of the Storage Tank Closure Certification form if tanks were removed as hazardous waste.

10. Disposal documentation, such as manifests, signed by the receiving facility, for the disposal of any removed soil, tank rinseate, and/or remaining tank contents. Records shall also include a proper waste determination for all waste material related to the removal of the tank(s).

11. Analysis results by a State certified laboratory submitted on laboratory letterhead showing analysis date, method of extraction, and method of analysis.

12. Documentation as to depths of groundwater at facility.

13. Any observations of site contamination.

14. Remedial action plan to mitigate contamination.

15. Report to be signed by a California Registered Geologist, a California Certified Engineering Geologist, or a California Registered Civil Engineer with sufficient experience in soils.

NOTIFICATION/PERMIT REQUIREMENTS AND CONTRACTOR'S DECLARATION

Storage tank work is subject to compliance with all applicable laws and regulations relating to the performance of work including, but not limited to, business license requirements, Building Codes, Fire Codes, Air Quality regulations, Health and Safety Codes, Water Codes and Transportation regulations.

You are required to complete **ALL** of the agency notifications indicated below within 24 hours prior to the commencement of work on this project. A request for an inspection within 24 hours does not guarantee you will receive the desired inspection appointment time. You may want to schedule appointments in advance of the 24-hour minimum requirement.

24 HOUR NOTIFICATION REQUIRED TO:

(X) City of Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, CA 90670
(562) 944-9713
(562) 941-1817 FAX

(X) City of Santa Fe Springs Building Department
11710 E. Telegraph Road
Santa Fe Springs, CA 90670
(562) 868-0511
(562) 868-7112 FAX

(X) South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
(909) 396-2000

FAILURE TO PROVIDE NOTICE AS REQUIRED ABOVE MAY RESULT IN PERMIT REVOCATION, ADDITIONAL SITE ASSESSMENT REQUIREMENTS, AND/OR ADMINISTRATIVE PENALTIES AS PROVIDE BY LAW.

I declare I have personally read the permit application for installation/removal of aboveground/underground storage tanks and will follow all the requirements. I declare that the statements and information provided are true and correct. I understand that no work is to begin on the project until the application and plans are approved. I have a City of Santa Fe Springs Business Operators Tax Certificate. I understand that the Santa Fe Springs Fire Department must be contacted at least 24 hours in advance to schedule each required inspection. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that the responsibility is not shared nor assumed by the City of Santa Fe Springs. I understand that a Health and safety Pan shall be prepared before performing any site work and that a copy of that Plan shall be available on the job site. I understand that a late fee will be charged as a result of an inspection not being canceled in a timely manner or a "not ready for inspection" condition existing upon arrival of a Fire Department Inspector. I understand that variations from the approved plans void the approval of the plans.

NOTICE TO CLOSURE PERMIT APPLICANTS

The South Coast Air Quality Management District (SCAQMD) has adopted Rule 1166 regulating emissions of Volatile Organic Compounds (VOC) from decontamination of soil effective August 6, 1988.

In addition to the requirements of your Closure Permit, persons excavating any underground storage tank that previously contained VOC's must:

- Notify the SCAQMD Executive Officer by telephone at (310) 403-6000 24 hours prior to tank excavation. 1166 (c) (1) (A)

- Monitor the excavated material during the excavation for VOC contamination. 1166 (C) (1) (B)

- When VOC contamination is detected:
  - Cease excavation
  - Cover the contaminated soil until implementation of approved mitigation measures. 1166 (c) (1) (C)
  - Notify the SCAQMD Executive Officer at (714) 396-2000 within 24 hours of detection of VOC contaminated soil. 1166 9 (c) (2) (A)

- A person shall not engage in or allow any on-site or off-site spreading of VOC contaminated soil which results in uncontrolled evaporation or VOC to the atmosphere. 1166 (c) (3)

EXEMPTIONS

- Treatment of less than one (1) cubic yard of contaminated soil. 1166 (d) (1) (A)

- Decontamination of soil containing organic compounds that have initial boiling point of 302 θF or greater, Reid Vapor Pressure less than 80 mm Hg or Absolute Vapor Pressure less than 36 mm Hg at 20 θC. 1166 (d) (1) (B). (F)

- Removal of soil for sampling purposes pursuant to EPA methods. 1166 (d) (1) (C)

- Accidental spillage of five (5) gallons or less of VOC. 1166 (d) (1) (D)

- Documentation of soil which is contaminated through natural seepage of VOC from oil and gas wells or other natural sources. 166 (d) (1) (E)

SPECIFIC QUESTIONS ON RULE 1166 SHOULD BE REFERRED TO THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT (909) 396-2000

CLOSURE PERMIT SAMPLING SUPPLEMENT

The owner or operator of an underground storage tank being closed shall demonstrate to the satisfaction of the Santa Fe Springs Fire Department that no unauthorized release has occurred. This demonstration shall be based on soil sample analysis and/or water analysis. These requirements are in addition to the conditions listed on the Application for Storage Tank Closure or contained in an approved Closure Plan. Additional guidelines regarding soil sampling requirements are available upon request.

1. Samples shall be obtained at the sampling points (SP) indicated on the attached plot plan.

2. Samples shall be obtained at the depths identified below. *All samples shall be tested by Method 8015 M and 8260 B for all volatile organic compounds (VOC) using preparatory method 5035.

3. Refer to *Soil Sampling Addendum for Volatile, Semi-Volatile and Extremely Hazardous Materials.*

SP	Depth(s)	Compounds	Analysis Method
		To Be included in the sampling workplan for the entire site	

4. All soil samples obtained shall be discrete, undisturbed and unexposed prior to analysis. The method used to obtain the samples and the date of sampling shall be included in the final report.

5. If groundwater is encountered during sampling, a groundwater monitoring well shall be established at the most down gradient sampling point. The well shall be developed by removing a minimum of four well volumes and a groundwater sample shall be obtained and analyzed.

6. The analytical results for all soil samples shall be expressed milligrams per kilogram (mg/kg), or micrograms per kilogram (ug/kg) as appropriate. Practical quantitation limits of 5-10 ug/kg (ppm) for volatile organics and 1 mg/kg (ppm) for the petroleum hydrocarbons must be achieved by the laboratory. Analytical results for groundwater samples shall be expressed in ug/l (ppb) and practical quantitation limits of .5-5 ug/l (ppb) for volatile organics, and 1mg/l (ppm) for petroleum hydrocarbons must be achieved by the laboratory.

7. Analytical results shall be reported on laboratory letterhead and shall include the following information: a) The date the analysis was conducted; b) The method of extraction (if applicable); c) Detection limits for each analytical procedure and determination; d) The method of analysis; e) Signature of chemist certifying results.

8. All soil/groundwater samples obtained shall be handled and transported to the laboratory in strict accordance with applicable EPA regulations utilizing chain-of-custody procedures. Chain-of-custody documentation shall be included in the final report.

9. If the soil/groundwater analysis indicates undefined contamination at the facility, additional sampling shall be required to define the vertical and lateral extent present.

10. A final report that contains all of the above required information shall be submitted to the office above within one (1) month from the sampling date or 180 days from the date of this permit, whichever is earlier.

*Note: per Health and Safety Code, §25299.37.1 and Los Angeles Regional Water Quality Control Board

STORAGE TANK CLOSURE REQUIREMENTS AND CONDITIONS

A permit is required to perform storage tank closure work. No on-site work shall begin until plans have been submitted and approved by the Santa Fe Springs Fire Department. The Fire Department must witness parts of the work and an inspection must be scheduled at least 24 hours in advance. A fee is also required. Any other governmental agency having jurisdiction must be notified before starting closure work in order to obtain proper clearance, permits, and arrange for required inspections. A copy of the Health and Safety Plan and other necessary permits must be obtained and kept available at the site. A tank closure report is required for all aboveground storage tank removals when soil or groundwater sampling is required and all underground storage tank closures that are not temporary. The requirements for this report are listed under Closure Report Requirements.

CONDITION A

PERMANENT UNDERGROUND AND ABOVE GROUND STORAGE TANK REMOVALS

NON-HAZARDOUS METHOD

The Santa Fe Springs Fire Department Inspector shall witness items 8-14.

A minimum of two 2A 40 BC rated fire extinguishers must be on site no further than 75 feet from the tank removal location. Extinguishers must have a current State Fire Marshal's tag attached.

All ignition sources must remain at least 50 feet away from the excavation. No smoking signs shall be posted.

Colored tape, fencing, and/or appropriate barriers shall be used to maintain site security.

All tanks shall be monitored for flammability and oxygen by a monitoring device that has been calibrated within the last six months. A sticker or tag with the last calibration date must be on the unit.

All piping associated with the tank shall be removed and disposed of unless removal might cause damage to other structures or pipes that are being used in a common trench, in which case the piping to be closed. Pipeline abandonment procedures are available at the Fire Department upon request.

All liquids, including rinseate, shall be removed from the tank and connected piping prior to excavation by approved methods. Grounding and bonding procedures shall be followed. Hazardous waste shall be manifested and transported to a fully approved and permitted TSD facility by a Licensed Hazardous Waste Transporter. The fire inspector shall be provided with a copy of the Hazardous Waste Manifest. Associated piping, including vent lines, electrical lines, and in-tank pumps, shall be disconnected from the tank and removed from the ground unless approved by the Chief. Continuous supervision must be maintained during the operations by the contractor named on the permit.

Vapor recovery shall be in accordance with AQMD Rule 1149.

NFPA guidelines shall be followed for the cleaning process. Bonding and grounding shall be in place. No "hot" work is permitted any tanks that previously contained flammable or combustible materials. A pneumatic cold-cutting tool may be used to cut openings for the cleaning procedures. Use only beryllium or approved non-sparking tools. The lower explosive limit must be below 10% to conduct such work.

Each tank is cleaned on-site, certified by a Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional as "clean" and vapor free. Tank cleaning shall be timed such that it is completed prior to the arrival of the fire inspector.

10. The Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional must take the lower explosive limit reading in the presence of the fire inspector *before* adding dry ice to the tank. The monitor must be properly calibrated. The LEL must be 0%.

11. A minimum of 15 pounds of dry ice per thousand gallons of tank capacity shall be placed into the tank.

12. The certified Marine Chemist or certified Industrial Hygienist shall apply an identification number and date to each tank that corresponds to the "certification". A copy of the signed "clean" closure certification form must be given to the fire inspector before he/she leaves the job site.

13. Tanks shall be lifted using a crane unless the contractor, at the time of permit application, can show the inspector that another piece of equipment is acceptable and safe. The tank exterior can only be cleaned with beryllium or non-sparking tools.

14. The tank shall be secured on an appropriate vehicle for immediate removal from the premises. The tank(s) shall be transported for material recycling or salvage with their respective certification(s). Demolition of above ground tanks shall be conducted as in the work plan approved by the Santa Fe Springs Fire Department.

15. In the event that a Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional will not certify the tank as clean, the tanks shall be handled as a hazardous waste and be transported under all applicable regulations. See Condition B

16. Soil samples shall be taken as listed on the Closure Permit Sampling Supplement form.

17. Each tank will be allotted a maximum of one hour for removal, loading, off-site transportation, and soil sampling. Closure periods which exceed this time frame, are subject to the fire inspector's schedule and will be charged at the Fire Department hourly inspection rate.

18. The site shall be backfilled and compacted to a relative compaction of 90%.

19. All Closure Report Requirements must be submitted to the Fire Department within 30 days from the sampling date or 180 days from the date of the permit, whichever is earlier.

CONDITION B

PERMANENT UNDERGROUND AND ABOVE GROUND STORAGE TANK REMOVALS

HAZARDOUS METHOD
Per CHSC§67383.5

The Fire Department Inspector shall witness item numbers 4 - 6.

Items 1-7 as described for Condition A, shall be followed as applicable.

2. All residual liquids, solids, or sludges, shall be removed and handled as a hazardous waste or recyclable materials in accordance with Chapters 6.5 and 6.7 of the Health and Safety Code. NOTICE: Contaminated tanks and residues that may be left in tanks to be closed may be a hazardous waste which must be transported and disposed of pursuant to Chapter 6.5 of the California Health and Safety Code. Failure to comply may be prosecuted as a felony conviction.

The tank's interior atmosphere shall be inerted using 22.2 pounds of dry ice per 1000 gallons of tank capacity.

4. A Certified Industrial Hygienist, Certified Marine Chemist, or Certified Safety Professional shall take LEL readings with a CGI that has been properly calibrated. Oxygen content shall also be measured and must be below 8% or less than 50% of the oxygen concentration required to support combustion, whichever is less, during the entire period that work is in progress. The readings shall be taken at the top, center and bottom of the tank before it is loaded onto the transport vehicle.

5. All openings in the tank shall be plugged, except an 1/8 vent. Cracks, holes or other damage shall be covered to contain any release.

6. Items 16 –19 as identified in Condition A shall be complied with.

CONDITION C

PERMANENT IN PLACE UNDERGROUND STORAGE TANK CLOSURES

The Fire Department Inspector shall witness item numbers 4 - 6.

All in place storage tank closures must be approved by the Building Department before applying to the Fire Department or a scaled drawing, stamped by a Professional Engineer, may be submitted. The drawing must show the location of the tank in plan view and in cross section. The drawing must show the angle (in degrees) from the closest footing of the permanent structure to the closest part of the tank system.

Items 1-7 as described for Condition A, shall be followed as applicable.

All residual liquids, solids, or sludges, shall be removed and handled as a hazardous waste or recyclable materials in accordance with Chapters 6.5 and 6.7 of the Health and Safety Code.

A Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional shall monitor the tank interior and exterior for potential harmful vapors. LEL must be below 10%.

5. The tank shall be completely filled with an inert solid. Cement slurry is acceptable. Sand or water is not. Alternative proposals must be submitted in writing and are subject to Fire Department approval.

6. Each tank will be allotted a maximum of one hour for filling of the tank and soil sampling. Closure periods which exceed this time frame, are subject to the fire inspector's schedule and will be charged at the Fire Department hourly inspection rate.

7. Soil samples shall be taken as listed on the Soil Sampling. Requirements form in the Application for Storage Tank Closure.

8. All Closure Report Requirements must be submitted to the Fire Department within 30 days from the sampling date or 180 days from the date of the permit, whichever is earlier.

CONDITION D

TEMPORARY STORAGE TANK CLOSURES

The Fire Department Inspector shall witness items 2 – 5.

1. Items 2 and 3 as described in Condition C, shall be followed as applicable.

2. The Fire Department shall witness verification that the tank is empty. This may be done by dip sticking the tank. Afterward, the storage tank may be filled with a non-corrosive liquid that is not a hazardous substance. Proof of compatibility of the liquid with the tank must be submitted to the Santa Fe Springs Fire Department.

3. Except for required venting, all fill and access locations and piping shall be sealed using locking caps or concrete plugs.

   Power service shall be disconnected from all pumps associated with the use of the storage tank unless the power services some other equipment which is not being closed, such as an impressed-current cathodic protection system.

5. Monitoring shall continue pursuant to the permit during the temporary closure, unless determined otherwise by the Fire Department.

6. The storage tank shall be inspected every 3 months by the owner or operator to verify temporary closure requirements are still in place.

7. Temporary closure permits are valid for six months from the date of approval. The tank must be removed, closed in place, or put back into use. If the tank is reused, it must meet the requirements of the Uniform Fire Code, Article 3 or 6 of Title 23 of the California Code of Regulations, Division 3, Chapter 16, and Health and Safety Code Ch. 6.7.

CONDITION E

WELL ABANDONMENTS

1. All abandoned wells shall be destroyed in such a way that they will not produce water or act as a channel for interchange of water, when such interchange may result in deterioration of the quality of water in any or all water bearing formations penetrated, or present a hazard to the safety and well being of people and animals.

   A well destruction permit issued by the Los Angeles Department of Health Services shall be required for all wells requiring a permit for their initial construction.

3. Well destruction shall be accomplished according to methods described in the latest "Water Well Standards: State of California" by the Department of Water Resources, contained in bulletin 74-81, December 1981, or any other methods that will provide equivalent or better protection.

4. Verification of well abandonment may be submitted in writing or by requesting a Fire Department inspection.

CLOSURE REPORT REQUIREMENTS

A closure report for storage tanks shall be submitted to the Santa Fe Springs Fire Department containing the items listed below. All closure report requirements must be submitted to the Fire Department within 30 days from the sampling date or 180 days from the data of this permit, whichever is earlier.

Site address of tank closure location.

2. Plot plan to scale showing the location of tanks, sampling points, buildings, adjacent streets, and a north arrow. Use a legend to identify tank size and past contents.

3. Description of methods for obtaining, handling, and transporting samples.

4. Time and date samples were obtained.

5. Soil sampling certification (including but not limited to soils classification, boring logs, sample procedures, sample locations, initiating chain of custody, and groundwater location) for tank closure shall be certified by a California Registered Geologist, a California Certified Engineering Geologist, or a California Registered Civil Engineer with sufficient experience in soils. The certification must clearly state that all work was done under the supervision of the person signing.

Chain of custody documentation initiated by the person obtaining samples through the person at a Cal/EPA Department of Toxic Substances Control certified laboratory.

Copy of "clean" closure certification signed by a Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional.

8. Copy of Santa Fe Springs Building Department permit. This is required on all underground tank closures and some aboveground tank closures.

9. Disposal destination of tanks and legal evidence of disposal. Include copy of the Storage Tank Closure Certification form if tanks were removed as hazardous waste.

10. Disposal documentation, such as manifests, signed by the receiving facility, for the disposal of any removed soil, tank rinseate, and/or remaining tank contents. Records shall also include a proper waste determination for all waste material related to the removal of the tank(s).

11. Analysis results by a State certified laboratory submitted on laboratory letterhead showing analysis date, method of extraction, and method of analysis.

12. Documentation as to depths of groundwater at facility.

13. Any observations of site contamination.

14. Remedial action plan to mitigate contamination.

15. Report to be signed by a California Registered Geologist, a California Certified Engineering Geologist, or a California Registered Civil Engineer with sufficient experience in soils.

City of Santa Fe Springs • Certified Unified Program Agency

STORAGE TANK CLOSURE CERTIFICATION

I. FACILITY IDENTIFICATION

ILITY NAME 3	FACILITY ID # 1

NK OWNER NAME (Print First Name, Last Name) 500

K OWNER ADDRESS 501	CITY 502	STATE 503	ZIP CODE 504

II. TANK CLOSURE INFORMATION

NK INTERIOR ATMOSPHERE READINGS	TANK # (State Tank ID#, if applicable)	FLAMMABLE VAPOR			OXYGEN		
		TOP	MIDDLE	BOTTOM	TOP	MIDDLE	BOTTOM

III. CERTIFICATION

examination of the tank, I certify the tank is visually free from product, sludge, rinseate and debris. I further certify that the mation provided herein is true and accurate to the best of my knowledge.

IFIER SIGNATURE	STATUS OR AFFILIATION OF CERTIFYING PERSON 505
RTIFIER (Print First Name, Last Name) 506	Tanks must be certified by one of the following (if other than a CMC, certification must be in appropriate discipline):
IFIED TITLE 507	
DRESS	☐ Certified Industrial Hygienist (CIH)
	☐ Certified Safety Professional (CSP)
ONE	☐ Certified Marine Chemist (CMC)
IFICATION DATE 508 / CERTIFICATION TIME	

TS ☐NO This tank previously held flammable or combustible materials. Atmosphere should be re-checked prior to any work being conducted on the tank.

A copy of this certificate shall accompany the tank to the recycling/disposal facility.

FICIAL USE ONLY

RECEIVED	REVIEWED BY	COMMENTS

INSTRUCTIONS FOR COMPLETION OF THE CONSOLIDATED PERMIT APPLICATION PACKAGE

TANK CLOSURE CERTIFICATION INFORMATION

The owner or operator of the tank system shall notify the CUPA in writing of the information contained in this form prior to initiating cleaning, cutting, dismantling, or excavation of a tank system that meets the conditions below.

1. This form applies to any tank system that previously held a hazardous material or a hazardous waste, that is identified as a hazardous waste or that is destined to be disposed, reclaimed or closed in place.

2. The requirements of this chapter do not apply to tank systems regulated under a hazardous waste facility permit, other than a permit by rule, or to tank systems regulated under a grant of interim status, nor to a tank system or any portion thereof that meets the definition of scrap metal in section 66260.10 and is excluded from regulation pursuant to section 66261.6(a)(3)(B).

FACILITY ID NUMBER Enter your Facility ID number, if known. Otherwise, leave this blank. This number is assigned by the Santa Fe Springs Fire Department. This is the unique number which identifies your facility.

BUSINESS NAME Enter the full legal name of the business.

500. **TANK OWNER NAME** Complete items 500-504 in this section, unless all items are the same as the Business Owner/Operator Identification Section, Owner Information. If the same, write "SAME AS SITE" across this section.

501. **TANK OWNER SITE ADDRESS**

502. **TANK OWNER SITE CITY**

503. **TANK OWNER SITE STATE**

504. **TANK OWNER SITE ZIP**

TANK INTERIOR ATMOSPHERE READINGS List the interior flammable vapor and oxygen levels for each tank being closed.

5. **CERTIFYING PERSON ORGANIZATION** Check the appropriate box to indicate the organization to which the certifying person belongs.

6. **CERTIFIER** The name of the certifying person.

507. **CERTIFIER TITLE** Print title of the person certifying the form.

8. **CERTIFICATION DATE** Enter the date that the document was signed. (YYYYMMDD)

NOTICE TO CLOSURE PERMIT APPLICANTS

The South Coast Air Quality Management District (SCAQMD) has adopted Rule 1166 regulating emissions of Volatile Organic Compounds (VOC) from decontamination of soil effective August 6, 1988.

In addition to the requirements of your Closure Permit, persons excavating any underground storage tank that previously contained VOC's must:

- Notify the SCAQMD Executive Officer by telephone at (310) 403-6000 24 hours prior to tank excavation. 1166 (c) (1) (A)

- Monitor the excavated material during the excavation for VOC contamination. 1166 (C) (1) (B)

- When VOC contamination is detected:
  - Cease excavation
  - Cover the contaminated soil until implementation of approved mitigation measures. 1166 (c) (1) (C)
  - Notify the SCAQMD Executive Officer at (714) 396-2000 within 24 hours of detection of VOC contaminated soil. 1166 9 (c) (2) (A)

- A person shall not engage in or allow any on-site or off-site spreading of VOC contaminated soil which results in uncontrolled evaporation or VOC to the atmosphere. 1166 (c) (3)

EXEMPTIONS

- Treatment of less than one (1) cubic yard of contaminated soil. 1166 (d) (1) (A)

- Decontamination of soil containing organic compounds that have initial boiling point of 302 ° F or greater, Reid Vapor Pressure less than 80 mm Hg or Absolute Vapor Pressure less than 36 mm Hg at 20 ° C. 1166 (d) (1) (B). (F)

- Removal of soil for sampling purposes pursuant to EPA methods. 1166 (d) (1) (C)

- Accidental spillage of five (5) gallons or less of VOC. 1166 (d) (1) (D)

- Documentation of soil which is contaminated through natural seepage of VOC from oil and gas wells or other natural sources. 166 (d) (1) (E)

SPECIFIC QUESTIONS ON RULE 1166 SHOULD BE REFERRED TO THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT (909) 396-2000

Ninyo & Moore

Geotechnical and Environmental Sciences Consultants

City of Santa Fe Springs
Fire Department
Environmental Protection Division
APPROVED FOR THE FOLLOWING PROGRAMS
[redacted] Only
[redacted] Other Site Mitigation
Subject to field inspection and required test, notations hereon, conditions in correspondence and conformance with applicable regulations. The stamping of these plans shall not be held to permit or approve the violation of any regulation of the law.
By [signature] Date 10/6/04

October 5, 2004
Project No. 205372005

Mr. Tom Hall
Santa Fe Springs Fire Department
11300 Greenstone Avenue
Santa Fe Springs, California 90670

Subject: Addendum to the General Work Plan
Dated September 21, 2004
Bloomfield II Property
Plegel Oil Company Lease
Santa Fe Springs, California

Dear Mr. Hall:

This letter presents an addendum to the General Work Plan dated September 21, 2004, to close the aboveground storage tanks (ASTs) and an industrial wastewater unit at the Plegel Oil Company Lease property (site) located in the northwestern corner of the Bloomfield II Property in Santa Fe Springs, California. As per your request during our telephone conversation on September 30, 2004, this addendum revises the sampling plan as per the Santa Fe Springs Fire Department (SFSFD) Soil Assessment and Remediation Guidelines for ASTs and industrial wastewater units. The following modifications will be made to the General Work Plan:

REVISED SAMPLING PLAN ABOVEGROUND STORAGE TANKS

Three test pits will be excavated as shown on Figure 1 beneath the location of each of the 10,500-gallon ASTs. Two test pits will be excavated beneath the location of each of the 2,500-gallon oil/water separators. Soil samples will be collected at depths of approximately 2, 5, and 10 feet below the bottom of each tank. The soil sample collect at a depth of approximately 2 feet below the bottom of the tank from each test pit will be chemically analyzed as per the General Work Plan. If elevated concentrations are detected, the 5- and 10-foot samples within that test pit will also be chemically analyzed. OK

REVISED SAMPLING PLAN INDUSTRIAL WASTEWATER UNIT

Two samples will be collected from beneath each of the three stages of the industrial wastewater system (the first stage metal aboveground tank, the second stage belowground sump, and the third stage clarifier). Samples will be collected as shown on Figure 1 at depths of approximately 2 feet below the bottom of the excavation. Soil samples will be analyzed as per the General Work Plan. Soil samples will also be collected at approximately 20-foot intervals along the underground piping run associated with the industrial wastewater unit. Figure 1 shows the estimated location of the piping run and the sampling locations. These samples will be analyzed as per the General Work Plan.

The work is tentatively scheduled for October 18 through 22, 2004. Prior to beginning the work, the SFSFD will be notified. If you have any questions or comments regarding this addendum, please call the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Paul Roberts

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR/emp

Attachment: Figure 1 – Proposed Sample Location Map

Distribution: (1) Addressee
(1) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory LLP

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

September 21, 2004
Project No. 205372005

Mr. Tom Hall
Santa Fe Spring Fire Department
11300 Greenstone Avenue
Santa Fe Springs, California 90670

Subject: General Work Plan to Close Aboveground Storage Tanks and Industrial Wastewater Unit
Bloomfield II Property
Plegel Oil Company Lease
Santa Fe Springs, California

Dear Mr. Hall:

This work plan presents the scope of work and schedule to close the four aboveground storage tanks (ASTs) and the industrial wastewater unit at the Plegel Oil Company Lease property (referred to as the Plegel lease property or the site) located in the northwestern corner of the Bloomfield II Property in Santa Fe Springs, California (Figures 1 and 2). Bloomfield Partners II, LLC, recently purchased the larger Bloomfield II Property and the Plegel lease property for redevelopment as commercial property.

BACKGROUND

The site and Bloomfield II Property have been used as oil production from at least 1923 through the time of this report. Oil wells on the Bloomfield II Property have recently been reabandoned in preparation of the redevelopment of the property. The site was used by Plegel Oil Company for the production and storage of crude oil. Based on groundwater wells located on the Bloomfield II Property, groundwater has been measured at depths of approximately 95 feet below the ground surface (bgs).

The site currently contains an active oil well (Hathaway Company "Baker" 27), a decommissioned and abandoned oil well (Texaco, Inc., "SFS" 5), three small ASTs (two containing crude

oil and one empty), an older oil/water separator, a newer oil/water separator, two wastewater separators, a clarifier, and two roll-off storage containers (Figure 3). Crude oil is pumped from "Baker" 27 and piped to the newer oil/water separator. The older oil/water separator was recently taken off line (approximately one month ago) and replaced with the newer oil/water separator (Plegel, 2004). Oil from the separator is pumped into the two ASTs for storage. The ASTs are relatively small, holding approximately 250 barrels of crude oil each (or approximately 10,500 gallons per AST). According to Mr. Wayne Plegel, owner of Plegel Oil Company, the empty AST has never stored hazardous materials on site. As per the request of Mr. Tom Hall of the Santa Fe Springs Fire Department (SFSFD), Ninyo & Moore obtained a signed letter from Mr. Plegel documenting this statement; a copy is provided in Attachment A. Based on this information, four ASTs will be closed through the City of Santa Fe Springs. The ASTs to be closed include the two crude oil tanks, the older oil/water separator, and the newer oil/water separator.

The wastewater generated from the pumping process is diverted through a three stage wastewater system that clarifies the water before it is discharged to the city storm drain. The first stage of the wastewater system is a metal aboveground tank (referred to as the first stage wastewater separator on Figure 3). The second stage consists of a concrete lined, belowground sump (referred to as the second stage wastewater separator on Figure 3). The third stage of the wastewater treatment unit is the clarifier located north of the crude oil ASTs (Figure 3). Based on this information, one industrial wastewater unit will be closed through the City of Santa Fe Springs. The industrial wastewater unit includes the first stage wastewater separator, the second stage wastewater separator, and the clarifier.

As part of the real estate due diligence, in December 2003 and January 2004, Bloomfield Partners II, LLC, retained Ninyo & Moore to conduct a subsurface investigation in the vicinity of the ASTs and wastewater treatment area. As presented on Figure 3, Ninyo & Moore advanced 14 soil borings to depths of up to 65 feet bgs. Laboratory results indicated concentrations of petroleum hydrocarbons and lead that exceeded the Santa Fe Springs Fire Department (SFSFD) ~~Draft~~ Soil Assessment and Remediation Guidelines for Commercial/Industrial Sites, ~~"Draft 64"~~ (referred to herein as the "SFSFD guidelines"). Ninyo & Moore prepared and submitted a report dated Feb-

ruary 13, 2004, to the SFSFD documenting these findings. Ninyo & Moore has also prepared a Soil Management Plan (SMP) dated June 17, 2004, that outlines the scope of work to investigate and remediate "unknown environmental features" that might be encountered during grading activities. The SMP was reviewed and approved by the SFSFD on June 29, 2004.

On September 10, 2004, Ninyo & Moore met with Mr. Hall to discuss the proposed scope of work to close the subject ASTs and industrial wastewater unit. Because impacted soil is known to exist, it was agreed upon by Ninyo & Moore and the SFSFD that closure procedures would be completed including the collection of confirmation soil samples, following which all of the laboratory data would be evaluated and a closure report and Remedial Action Plan (RAP) would be prepared.

OBJECTIVE

The objective of the work presented herein is to close the ASTs and industrial wastewater unit in accordance with current regulatory guidelines.

SCOPE OF SERVICES

Ninyo & Moore's proposed scope of work will include the following:

- **Task 1: Obtain Permits** – As part of this work plan, Ninyo & Moore has submitted the Application for Storage Tank Closure and Industrial Waste Application for Closure to the SFSFD, along with the appropriate fees. Following approval of these applications, Ninyo & Moore will obtain a sewer/plumbing permit from the Santa Fe Springs Building and Safety Department (SFSBD).

- **Task 2: Health and Safety Plan** – The Health and safety Plan presented in the SMP dated June 17, 2004, will be used during the closure activities presented herein.

- **Task 3: Decommissioning and Closure of ASTs and Industrial Wastewater Unit** – Bloomfield Partners II, LLC, will retain a state-licensed contractor to decommission and close the ASTs and industrial wastewater unit. Prior to beginning work, the SFSFD, SFSBD, and South Coast Air Quality Management District (SCAQMD) will be notified. All liquids will be removed from the ASTs and industrial wastewater units and the features will be triple rinsed. Residue liquids and rinsate will be transported with manifests to a state-licensed off-

site recycling facility. Each tank will then be certified by a Certified Marine Chemist, Certified Industrial Hygienist, or Certified Safety Professional as "clean" and vapor free. The ASTs and industrial wastewater unit will then be demolished and removed from the site as construction debris. On-site pipelines associated with the ASTs and industrial wastewater unit will be removed. The outlet pipeline will be severed at or near the property line and will be capped with fast-setting cement or other approved equivalent material.

- **Task 4: Confirmation Sampling** – Confirmation sampling will be conducted with the oversight of a California Registered Geologist from Ninyo & Moore. One sample will be collected beneath each of the four ASTs (the two crude oil ASTs, the older oil/water separator, and the newer oil/water separator) and each of the wastewater separators (i.e., the first stage wastewater separator, the second stage wastewater separator, and the clarifier). Soil samples will also be collected along pipeline runs at approximately 20-foot intervals. The exact location of the pipelines are unknown at this time, however, it is assumed that underground pipelines exist between the active oil well and the newer oil/water separator; from the newer oil/water separator to the first stage wastewater separator; from the second stage wastewater separator to the clarifier; and from the crude oil ASTs to a truck valve located immediately south of the Plegel lease property. Underground pipelines discovered during the demolition activities will be accurately mapped by Ninyo & Moore. Soil samples will be collected from the backhoe bucket at depths of approximately 2 feet below the bottom of each feature. Samples will be collected in laboratory-supplied glass jars and in accordance with EPA Method No. 5035. Field procedures are presented in Attachment B.

- **Task 5: Laboratory Analyses** – Soil samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbon carbon chain C_{10}-C_{32} (TPHcc), volatile organic compounds (VOCs), polynuclear aromatics (PNAs), and Title 22 metals in general accordance with EPA Method Nos. 8015 (modified), 8260B, 8270C, and 6010/7000 series.

- **Task 6: Closure Report and Remedial Action Plan** – Following receipt of the laboratory reports, an AST/Industrial Wastewater Unit Closure Report and RAP will be prepared that will document the decommissioning and closure of the ASTs and industrial wastewater unit, laboratory results, and the remedial action for mitigating on-site soils.

SCHEDULE

Following approval of the work plan, Tasks 3 through 5 will be completed in approximately three to four weeks. The closure report and RAP will be submitted to the SFSFD for review approximately four weeks following removal activities.

If you have any questions or comments regarding this work plan, please call the undersigned at your convenience.

Sincerely,
NINYO & MOORE

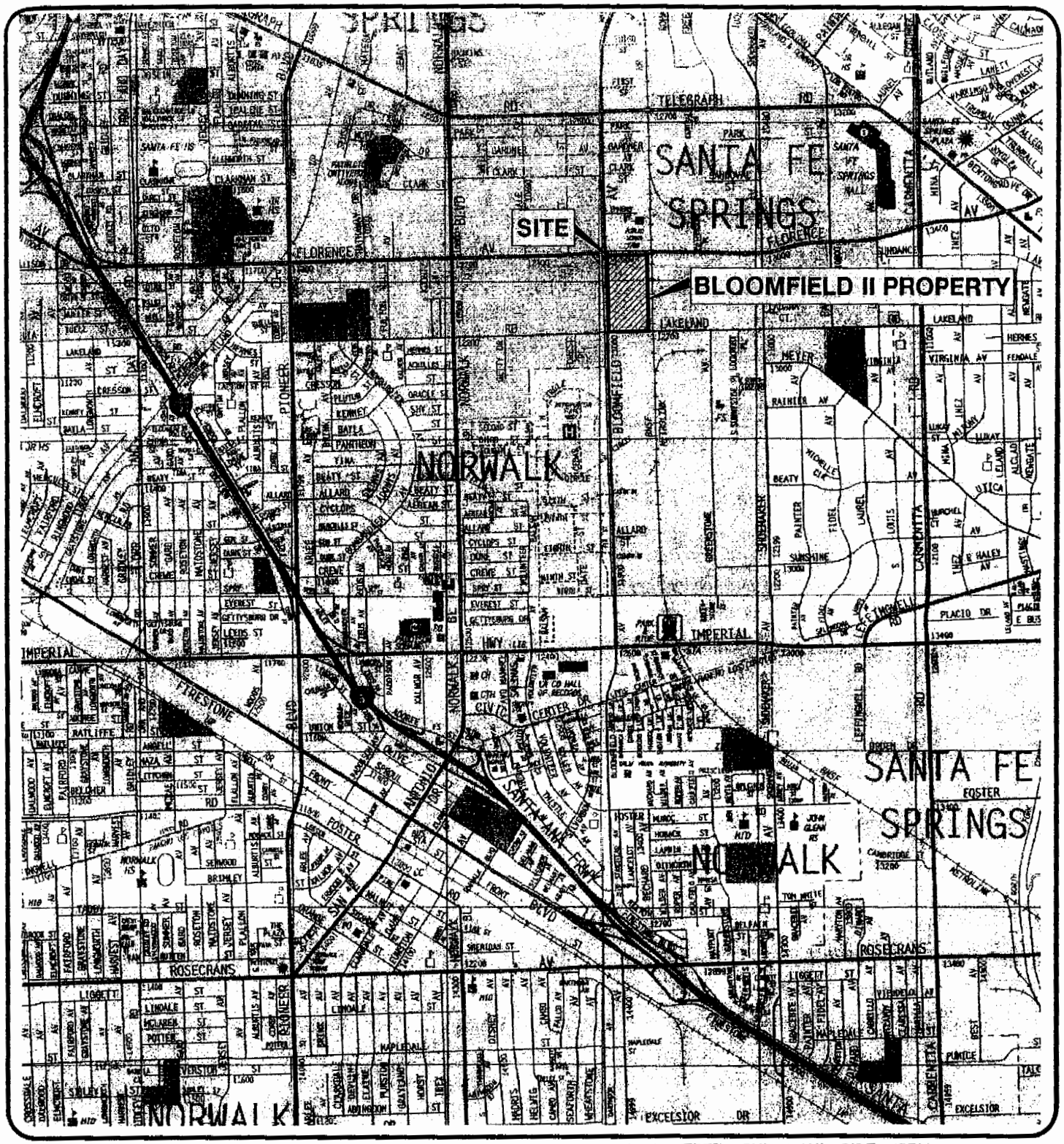
REGISTERED GEOLOGIST
PAUL A. ROBERTS
No 6897
STATE OF CALIFORNIA

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR/emp

Attachments: Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Soil Boring Location Map
Attachment A – Copy of Signed Statement by Mr. Wayne Plegel
Attachment B – Field Procedures

Distribution: (1) Addressee
(2) Mr. Patrick Russell, Bloomfield Partners II, LLC
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory LLP



REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

APPROXIMATE SCALE IN FEET

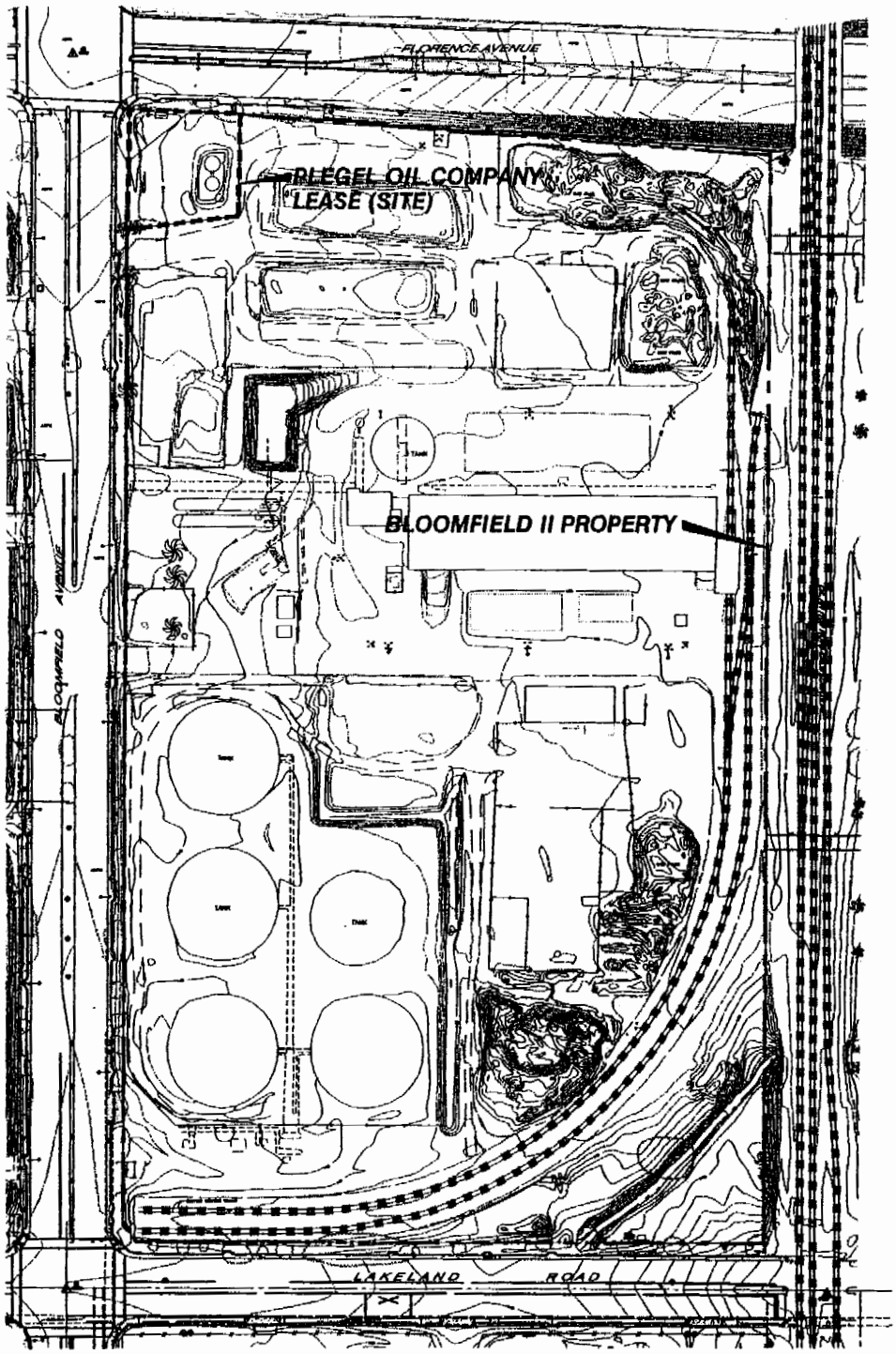
Ninyo & Moore

SITE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	9/2004	1

205372005 A1.DWG



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APPROXIMATE SCALE IN FEET

REEFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

— - - — BLOOMFIELD II PROPERTY BOUNDARY

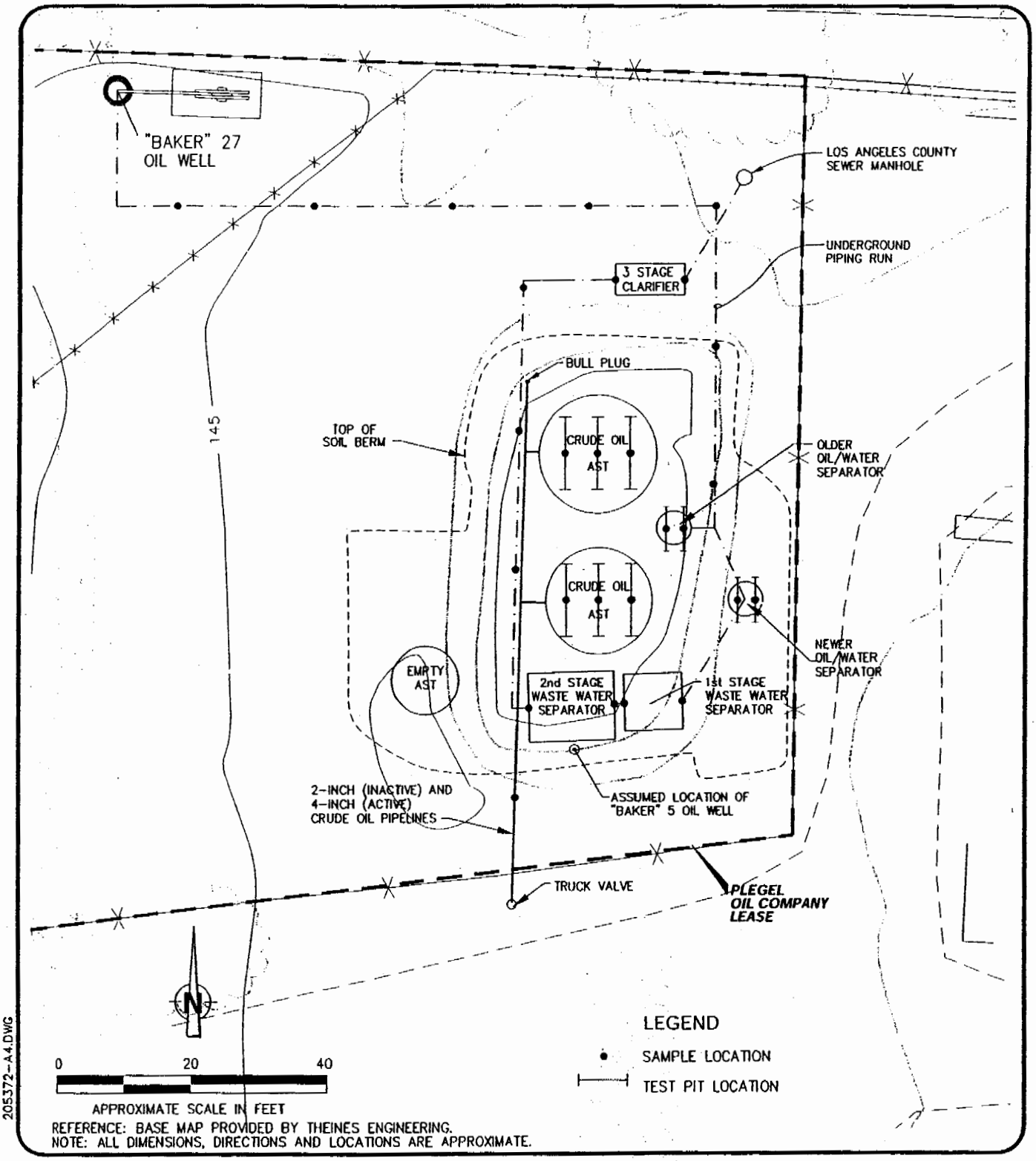
- - - - - - PLEGEL OIL COMPANY LEASE

Ninyo & Moore

SITE PLAN

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	9/2004	2



205372-A4.DWG

REFERENCE: BASE MAP PROVIDED BY THEINES ENGINEERING.
NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

PROPOSED SAMPLE LOCATION MAP

BLOOMFIELD II PROPERTY
10806 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
205372005	10/2004	1

ATTACHMENT A

COPY OF SIGNED STATEMENT BY MR. WAYNE PLEGEL

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

September 13, 2004
Project No. 205372004

Mr. Wayne Plegel
Plegel Oil Company
17052 Cascades Avenue
Yorba Linda, California 92886

Subject: Documentation of Telephone Conversation
Bloomfield II Property
Plegel Oil Company Lease
Santa Fe Springs, California

Dear Mr. Plegel:

This letter documents our telephone conversation we had this afternoon. As we discussed, Ninyo & Moore has been retained by Bloomfield II Partners, LLC to remove the aboveground storage tanks (ASTs) and wastewater treatment unit at the above-referenced property (site). As part of this process, we are preparing the closure applications and associated fees. As you stated during our conversation, to the best of your knowledge, the empty AST located on the western portion of the bermed area has never contained liquids, hazardous materials, or other substances since it was installed on the subject site. Please verify this statement by signing below. Ninyo & Moore will present this letter to the Santa Fe Springs Fire Department who will exempt the subject AST from the Aboveground Storage Tank Closure Permit application. If there are any questions, please feel free to call me at 949-753-7070.

Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR

Distribution: (1) Addressee
(1) Mr. Patrick Russell, Bloomfield Partners, LLC

Verify AST Usage: Signature: Wayne Plegel 9/14/2004 Date

ATTACHMENT B

FIELD PROCEDURES

FIELD PROCEDURES

Confirmation Sampling

1. Bloomfield Partners II, LLC, will retain a State-licensed contractor to close the aboveground storage tanks (ASTs) and industrial wastewater unit, and excavate test pits for the collection of confirmation soil samples. The operator will be HAZWOPER 40-hour trained.

2. Ambient air quality within the work zone will be monitored for potentially hazardous materials (e.g., volatile organic compounds [VOCs]) using an organic vapor analyzer (OVA), or equivalent equipment calibrated to meet the requirements of South Coast Air Quality Management District (SCAQMD) Rule 1166.

3. Soil samples will be collected using laboratory supplied glass jars. The samples will be collected from the bucket of the backhoe. The samples collected for the analyses of VOCs and total petroleum hydrocarbons as gasoline (TPHg) will be collected in general accordance with EPA Method No. 5035.

4. The samples retained for chemical analyses will be placed in zip-lock bags and stored in an ice chest cooled, using ice, to a temperature of approximately 40 degrees Fahrenheit.

5. Soil samples will be delivered to a state-certified laboratory within 24 hours after collection. Sample handling, transport, and delivery to the laboratory will be documented using chain-of-custody procedures, including the use of chain-of-custody forms.

APPENDIX B

NON-HAZARDOUS WASTE MANIFESTS

TMG TRANSPORTATION, INC.
1516 Beechwood Avenue • Fullerton, CA 92835
Ph: (714) 822-5438 Fax: (714) 256-0822

№ 1167

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME PLEGEL O.L Co/Sanis Regis
ADDRESS Baker Tank Farm
CITY, STATE, ZIP Santa Fe Springs 90670
EPA I.D. NO.
PHONE NO 714 572 3571

CONTAINERS: NO. 1 VOLUME 100 BBL WEIGHT

TYPE ☒ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION TANK Bottoms GENERATING PROCESS OL Production

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Tank Bottoms		100	5.		
2.			6.		
3.			7.		
4.			8.		

PROPERTIES: pH 7 ☐ SOLID ☐ LIQUID ☒ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Safety Glasses & Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

[signature] Agent 11/22/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME TMG TRANSPORTATION, INC.
ADDRESS 1516 BEECHWOOD AVENUE
CITY, STATE, ZIP FULLERTON, CA 92835
PHONE NO. (714) 822-5438
EPA I.D. NO.
SERVICE ORDER NO.
PICK UP DATE

TRUCK UNIT I.D. NO. 125
[signature] 11/22/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Anterra
ADDRESS 1933 E Wooley Rd
CITY, STATE, ZIP Oxnard Ca 93030
PHONE NO. 805 240 4646
EPA I.D. NO.
DISOSAL METHOD
☐ LANDFILL ☐ OTHER

David Spodyrus [signature] 11-22-04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS
TRANS		S B	
C/Q		RT/CD	HWDF NONE

DISCREPANCY Tank Bottom oil & waxie & water no wash out.

TMG TRANSPORTATION, INC.
1516 Beechwood Avenue • Fullerton, CA 92835
Ph: (714) 822-5438 Fax: (714) 256-0822

№ 1168

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Sari's Regis / Plagel Oil
ADDRESS 18802 Bidine Av
CITY, STATE, ZIP Irvine CA 92612
EPA I.D. NO.
PHONE NO (714) 572-3571

CONTAINERS: NO. 1 VOLUME 100BBL WEIGHT

TYPE ☒ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Tank Bottoms GENERATING PROCESS Oil Production

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Tank Bottoms		100	6.		
2.			6.		
3.			7.		
4.			8.		

PROPERTIES: pH 7 ☐ SOLID ☐ LIQUID ☒ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Safety Glasses + Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Luther D Green Agent for Sari's 11/23/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME TMG TRANSPORTATION, INC.
EPA I.D. NO.
ADDRESS 1516 BEECHWOOD AVENUE
SERVICE ORDER NO.
CITY, STATE, ZIP FULLERTON, CA 92835
PICK UP DATE 11/23/04
PHONE NO. (714) 822-5438

TRUCK UNIT I.D. NO. 125
Luther D Green 11/23/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

NAME ANTERRA
EPA I.D. NO.
ADDRESS 1933 E Wooley Rd
CITY, STATE, ZIP Oxnard CA 93030
PHONE NO. 805 240-4646

DISOSAL METHOD
☐ LANDFILL ☐ OTHER

David Snodgrass 11-23-04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

NO wash out oil water sludge.

GEN	OLD/NEW	L A	TONS
TRANS		S B	
C/O		RT/CD	KWDF NONE

DISCREPANCY

TMG TRANSPORTATION, INC.
1516 Beechwood Avenue • Fullerton, CA 92835
Ph: (714) 822-5438 Fax: (714) 256-0822

№ 1169

NON-HAZARDOUS WASTE DATA FORM

TO COMPLETED BY GENERATOR

NAME Saris Regis / Plagel Oil
ADDRESS 18802 Bidine Av
CITY, STATE, ZIP Irvine CA 92612
EPA I.D. NO.
PHONE NO 714.572 3571

CONTAINERS: NO. 1 VOLUME 100 BBL WEIGHT

TYPE ☒ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Tank Bottoms GENERATING PROCESS Oil Production

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Tank Bottoms		100	6.		
2.			6.		
3.			7.		
4.			8.		

PROPERTIES: pH 2 ☐ SOLID ☐ LIQUID ☒ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Safety Glasses & Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Luther D. Green [signature] Agent 11/24/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME TMG TRANSPORTATION, INC.
ADDRESS 1516 BEECHWOOD AVENUE
CITY, STATE, ZIP FULLERTON, CA 92835
PHONE NO. (714) 822-5438
EPA I.D. NO.
SERVICE ORDER NO.
PICK UP DATE

TRUCK UNIT I.D. NO. 125

Luther D Green [signature] 11/24/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

NAME Anterra
ADDRESS 1933 E Wooley Rd
CITY, STATE, ZIP Oxnard CA 93030
PHONE NO. 805-240-4646
EPA I.D. NO.

DISOSAL METHOD
☐ LANDFILL ☐ OTHER

Randy Rotterman [signature] 11.24.04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS
TRANS		S B	
C/Q		RT/CD	HWDF NONE

DISCREPANCY YES CHARGE

TMG TRANSPORTATION, INC.
1516 Beechwood Avenue • Fullerton, CA 92835
Ph: (714) 822-5438 Fax: (714) 256-0822

№ 1170

NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Sara's Regis "Floyd Baker Tank Farm" EPA I.D. NO.
ADDRESS 18802 Bridge Av
CITY, STATE, ZIP Irvine Ca 92612 PHONE NO 714 572 3571

CONTAINERS: NO. 1 VOLUME 100 BBL WEIGHT

TYPE ☒ TANK TRUCK ☐ DUMP TRUCK ☐ DRUMS ☐ CARTONS ☐ OTHER

WASTE DESCRIPTION Tank Bottoms GENERATING PROCESS Oil Production

COMPONENTS OF WASTE	PPM	%	COMPONENTS OF WASTE	PPM	%
1. Tank Bottoms		100	5.		
2.			6.		
3.			7.		
4.			8.		

PROPERTIES: pH 7 ☐ SOLID ☐ LIQUID ☒ SLUDGE ☐ SLURRY ☐ OTHER

HANDLING INSTRUCTIONS: Safety Glasses & Gloves

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS

Luther D Green As Agent [signature] 12/1/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME TMG TRANSPORTATION, INC. EPA I.D. NO.
ADDRESS 1516 BEECHWOOD AVENUE SERVICE ORDER NO.
CITY, STATE, ZIP FULLERTON, CA 92835 PICK UP DATE
PHONE NO. (714) 822-5438
TRUCK UNIT I.D. NO. 125 [signature] Luther D Green 12/1/04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

FACILITY

NAME Anterra EPA I.D. NO.
ADDRESS 1933 E Wooley Rd DISOSAL METHOD ☐ LANDFILL ☐ OTHER
CITY, STATE, ZIP Oxnard CA 93030
PHONE NO. 805-240-4646 David Swedy/ASS [signature] 12-01-04
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L A	TONS
TRANS		S. B	
C/Q		RT/CD	HWDF NONE

DISCREPANCY washed out Thick wax & Tank Bottoms.

APPENDIX C

TANK CERTIFICATE

TANK CERTIFICATION REPORT

[redacted]

TANK REMOVAL CERTIFICATE #: 07462

Date: 11/30/04

Permit #: N/A

Site: Baker Lease

Address of tank: 12600 Florence Ave.
Santa Fe Springs

Client: Reliable Equipment

TANK DESCRIPTION	TANK SIZE	TANK NUMBER	TANK CONTENTS	RESULTS OF TANK INSPECTION
Steel AST	250 BBL	N/A	crude oil	LEL 0%
Steel AST	" "	N/A		LEL 0%
Seperator	60 BBL	N/A	water + crude	LEL 0%

The tank(s) described above has/have been inspected and found to be gas free based on readings obtained with an MSA type 2A Explosivity Meter (LEL of zero percent). A visual inspection has been made of the interior of the tank(s) and no visible contamination has been observed except as noted below.

EXCEPTION: Slight rust/oil residue

THE AMERICAN BOARD OF INDUSTRIAL HYGIENE INCORPORATED CERT. NO. #1973 1433 PENNSYLVANIA 19060 STUART F. SALOT, PH.D.

The tank(s) described above is/are approved for removal and transportation.

[redacted]

INSPECTED BY: [illegible] CERTIFIED BY: STUART F. SALOT, PH.D., C.I.H.
CERTIFIED INDUSTRIAL HYGIENIST (#1973 & 1433)

BHL Industries Incorporated

11201 SANTA FE AVENUE - LYNWOOD, CALIFORNIA 90262

(310) 537-6142 • (323) 321-1710 • (310) 635-9942 FAX

February 3, 2004

Reliable Equipment Rental, Inc.
8331 Commonwealth Ave.
Buena Park, CA 90621

Subject: Certificate of Destruction

This letter will serve has the Certificate of Destruction for the tanks, vessels, and piping removed by BHL for Reliable Equipment Rental at the Plegel Yard located on the corner of Florence and Bloomfield Santa Fe Springs, CA.

Material was sent to the following recycling facility: Hugo Neu Proler 901 New Dock Street Terminal Island, CA for remelting purposes only.

If you require any additional information please contact us.

Sincerely,

Stuart H. Lipsett
President

APPENDIX D

SAMPLING PROCEDURES

SAMPLING PROCEDURES

Soil Sampling Procedures

1. Discrete, relatively undisturbed soil samples were collected from the backhoe bucket and from the excavated stockpiled soil. Samples to be chemically analyzed for total petroleum hydrocarbons as gasoline (TPHg) and volatile organic compounds (VOCs) were collected in general accordance with EPA Method No. 5035. A plastic syringe was used to collect approximately 5 grams of soil from the backhoe bucket and stockpiled soil. The soil was ejected into a pre-weighed, laboratory supplied, 40-milliliter, volatile organic analysis (VOA) vial containing methanol. Two additional samples weighing approximately 5 grams each were collected using the syringe and ejected into vials containing sodium bisulfate. A new syringe was used for each sampling interval.

2. The samples to be analyzed for the remaining constituents were collected in laboratory supplied 4-ounce, glass jars.

3. The soil samples were placed in sealable plastic bags and stored in an ice chest, which was cooled, using bagged ice, to a temperature of approximately four degrees Celsius.

Sample Handling Procedures

1. The samples were stored in an ice-filled cooler and delivered to an off-site state-certified laboratory following termination of field activities. Sample handling, transport, and delivery to the laboratory were documented using appropriate chain-of-custody protocol, including the use of chain-of-custody forms.

APPENDIX E

LABORATORY REPORTS

December 08, 2004

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196

Paul Roberts
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618

TEL: (949) 697-2198
FAX: (949) 753-7071

Workorder No.: 072617

RE: Bloomfield II, 205372005

Attention: Paul Roberts

Enclosed are the results for sample(s) received on November 30, 2004 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

for

Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Project: Bloomfield II, 205372005
Lab Order: 072617

CASE NARRATIVE

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Analytical Comments for EPA 8270

The following samples were diluted due to sample matrix:

072617-001G
072617-004G
072617-007G
072617-010G

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	2.1	1.0		mg/Kg	1	12/6/2004
Barium	42	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	6.8	1.0		mg/Kg	1	12/6/2004
Cobalt	3.4	1.0		mg/Kg	1	12/6/2004
Copper	7.5	1.0		mg/Kg	1	12/6/2004
Lead	2.3	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	5.8	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	12	1.0		mg/Kg	1	12/6/2004
Zinc	15	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	2600	200		mg/Kg	20	12/5/2004
T/R Hydrocarbons: C10-C12	840	200		mg/Kg	20	12/5/2004
T/R Hydrocarbons: C13-C15	1900	200		mg/Kg	20	12/5/2004
T/R Hydrocarbons: C16-C22	5000	200		mg/Kg	20	12/5/2004
T/R Hydrocarbons: C23-C32	6700	200		mg/Kg	20	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	41	1.2		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-001	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	250		µg/Kg	50	12/1/2004
1,1,1-Trichloroethane	ND	250		µg/Kg	50	12/1/2004
1,1,2,2-Tetrachloroethane	ND	250		µg/Kg	50	12/1/2004
1,1,2-Trichloroethane	ND	250		µg/Kg	50	12/1/2004
1,1-Dichloroethane	ND	250		µg/Kg	50	12/1/2004
1,1-Dichloroethene	ND	250		µg/Kg	50	12/1/2004
1,1-Dichloropropene	ND	250		µg/Kg	50	12/1/2004
1,2,3-Trichlorobenzene	ND	250		µg/Kg	50	12/1/2004
1,2,3-Trichloropropane	ND	250		µg/Kg	50	12/1/2004
1,2,4-Trichlorobenzene	ND	250		µg/Kg	50	12/1/2004
1,2,4-Trimethylbenzene	ND	250		µg/Kg	50	12/1/2004
1,2-Dibromo-3-chloropropane	ND	500		µg/Kg	50	12/1/2004
1,2-Dibromoethane	ND	250		µg/Kg	50	12/1/2004
1,2-Dichlorobenzene	ND	250		µg/Kg	50	12/1/2004
1,2-Dichloroethane	ND	250		µg/Kg	50	12/1/2004
1,2-Dichloropropane	ND	250		µg/Kg	50	12/1/2004
1,3,5-Trimethylbenzene	ND	250		µg/Kg	50	12/1/2004
1,3-Dichlorobenzene	ND	250		µg/Kg	50	12/1/2004
1,3-Dichloropropane	ND	250		µg/Kg	50	12/1/2004
1,4-Dichlorobenzene	ND	250		µg/Kg	50	12/1/2004
2,2-Dichloropropane	ND	250		µg/Kg	50	12/1/2004
2-Chlorotoluene	ND	250		µg/Kg	50	12/1/2004
4-Chlorotoluene	ND	250		µg/Kg	50	12/1/2004
4-Isopropyltoluene	ND	250		µg/Kg	50	12/1/2004
Benzene	ND	250		µg/Kg	50	12/1/2004
Bromobenzene	ND	250		µg/Kg	50	12/1/2004
Bromodichloromethane	ND	250		µg/Kg	50	12/1/2004
Bromoform	ND	250		µg/Kg	50	12/1/2004
Bromomethane	ND	250		µg/Kg	50	12/1/2004
Carbon tetrachloride	ND	250		µg/Kg	50	12/1/2004
Chlorobenzene	ND	250		µg/Kg	50	12/1/2004
Chloroethane	ND	250		µg/Kg	50	12/1/2004
Chloroform	ND	250		µg/Kg	50	12/1/2004
Chloromethane	ND	250		µg/Kg	50	12/1/2004
cis-1,2-Dichloroethene	ND	250		µg/Kg	50	12/1/2004
cis-1,3-Dichloropropene	ND	250		µg/Kg	50	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-001	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	250		µg/Kg	50	12/1/2004
Dibromomethane	ND	250		µg/Kg	50	12/1/2004
Dichlorodifluoromethane	ND	250		µg/Kg	50	12/1/2004
Ethylbenzene	ND	250		µg/Kg	50	12/1/2004
Hexachlorobutadiene	ND	250		µg/Kg	50	12/1/2004
Isopropylbenzene	1900	250		µg/Kg	50	12/1/2004
m,p-Xylene	ND	250		µg/Kg	50	12/1/2004
Methylene chloride	ND	250		µg/Kg	50	12/1/2004
n-Butylbenzene	610	250		µg/Kg	50	12/1/2004
n-Propylbenzene	2800	250		µg/Kg	50	12/1/2004
Naphthalene	9300	250		µg/Kg	50	12/1/2004
o-Xylene	ND	250		µg/Kg	50	12/1/2004
sec-Butylbenzene	1300	250		µg/Kg	50	12/1/2004
Styrene	ND	250		µg/Kg	50	12/1/2004
tert-Butylbenzene	ND	250		µg/Kg	50	12/1/2004
Tetrachloroethene	ND	250		µg/Kg	50	12/1/2004
Toluene	ND	250		µg/Kg	50	12/1/2004
trans-1,2-Dichloroethene	ND	250		µg/Kg	50	12/1/2004
Trichloroethene	ND	250		µg/Kg	50	12/1/2004
Trichlorofluoromethane	ND	250		µg/Kg	50	12/1/2004
Vinyl chloride	ND	250		µg/Kg	50	12/1/2004

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS7_041202A QC Batch: 20428 PrepDate: 12/2/2004 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
2-Methylnaphthalene	ND	33000		µg/Kg	50	12/6/2004
Acenaphthene	ND	33000		µg/Kg	50	12/6/2004
Acenaphthylene	ND	33000		µg/Kg	50	12/6/2004
Anthracene	ND	33000		µg/Kg	50	12/6/2004
Benzo(a)anthracene	ND	33000		µg/Kg	50	12/6/2004
Benzo(a)pyrene	ND	33000		µg/Kg	50	12/6/2004
Benzo(b)fluoranthene	ND	33000		µg/Kg	50	12/6/2004
Benzo(g,h,i)perylene	ND	33000		µg/Kg	50	12/6/2004
Benzo(k)fluoranthene	ND	33000		µg/Kg	50	12/6/2004
Chrysene	ND	33000		µg/Kg	50	12/6/2004
Dibenz(a,h)anthracene	ND	33000		µg/Kg	50	12/6/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428				PrepDate: 12/2/2004	Analyst: **JWS**
Fluoranthene	ND	33000		µg/Kg	50	12/6/2004
Fluorene	ND	33000		µg/Kg	50	12/6/2004
Indeno(1,2,3-cd)pyrene	ND	33000		µg/Kg	50	12/6/2004
Naphthalene	ND	33000		µg/Kg	50	12/6/2004
Phenanthrene	ND	33000		µg/Kg	50	12/6/2004
Pyrene	ND	33000		µg/Kg	50	12/6/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-004	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	ND	1.0		mg/Kg	1	12/6/2004
Barium	70	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	6.4	1.0		mg/Kg	1	12/6/2004
Cobalt	3.2	1.0		mg/Kg	1	12/6/2004
Copper	6.4	1.0		mg/Kg	1	12/6/2004
Lead	3.8	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	4.7	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	11	1.0		mg/Kg	1	12/6/2004
Zinc	15	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	160	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C16-C22	31	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C23-C32	180	10		mg/Kg	1	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	ND	0.95		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-004	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	4.4		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	4.4		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	4.4		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	4.4		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	4.4		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	4.4		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	4.4		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	4.4		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	4.4		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	4.4		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	ND	4.4		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	8.8		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	4.4		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	4.4		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	4.4		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	4.4		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	ND	4.4		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	4.4		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	4.4		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	4.4		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	4.4		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	4.4		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	4.4		µg/Kg	1	12/1/2004
4-Isopropyltoluene	ND	4.4		µg/Kg	1	12/1/2004
Benzene	ND	4.4		µg/Kg	1	12/1/2004
Bromobenzene	ND	4.4		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	4.4		µg/Kg	1	12/1/2004
Bromoform	ND	4.4		µg/Kg	1	12/1/2004
Bromomethane	ND	4.4		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	4.4		µg/Kg	1	12/1/2004
Chlorobenzene	ND	4.4		µg/Kg	1	12/1/2004
Chloroethane	ND	4.4		µg/Kg	1	12/1/2004
Chloroform	ND	4.4		µg/Kg	1	12/1/2004
Chloromethane	ND	4.4		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	4.4		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	4.4		µg/Kg	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
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DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Page 6 of 32

Results are wet unless otherwise specified

Advanced Technology Laboratories *3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040*

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-004	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_041201A	QC Batch: R04VS193			PrepDate:	11/30/2004	Analyst: **JPC**
Dibromochloromethane	ND	4.4		µg/Kg	1	12/1/2004
Dibromomethane	ND	4.4		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	4.4		µg/Kg	1	12/1/2004
Ethylbenzene	ND	4.4		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	4.4		µg/Kg	1	12/1/2004
Isopropylbenzene	ND	4.4		µg/Kg	1	12/1/2004
m,p-Xylene	ND	4.4		µg/Kg	1	12/1/2004
Methylene chloride	ND	4.4		µg/Kg	1	12/1/2004
n-Butylbenzene	ND	4.4		µg/Kg	1	12/1/2004
n-Propylbenzene	ND	4.4		µg/Kg	1	12/1/2004
Naphthalene	ND	4.4		µg/Kg	1	12/1/2004
o-Xylene	ND	4.4		µg/Kg	1	12/1/2004
sec-Butylbenzene	ND	4.4		µg/Kg	1	12/1/2004
Styrene	ND	4.4		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	4.4		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	4.4		µg/Kg	1	12/1/2004
Toluene	ND	4.4		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	4.4		µg/Kg	1	12/1/2004
Trichloroethene	ND	4.4		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	4.4		µg/Kg	1	12/1/2004
Vinyl chloride	ND	4.4		µg/Kg	1	12/1/2004
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	(EPA 3550B)			**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate:	12/2/2004	Analyst: **JWS**
2-Methylnaphthalene	ND	3300		µg/Kg	10	12/3/2004
Acenaphthene	ND	3300		µg/Kg	10	12/3/2004
Acenaphthylene	ND	3300		µg/Kg	10	12/3/2004
Anthracene	ND	3300		µg/Kg	10	12/3/2004
Benzo(a)anthracene	ND	3300		µg/Kg	10	12/3/2004
Benzo(a)pyrene	ND	3300		µg/Kg	10	12/3/2004
Benzo(b)fluoranthene	ND	3300		µg/Kg	10	12/3/2004
Benzo(g,h,i)perylene	ND	3300		µg/Kg	10	12/3/2004
Benzo(k)fluoranthene	ND	3300		µg/Kg	10	12/3/2004
Chrysene	ND	3300		µg/Kg	10	12/3/2004
Dibenz(a,h)anthracene	ND	3300		µg/Kg	10	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-004	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate:	12/2/2004	Analyst: **JWS**
Fluoranthene	ND	3300		µg/Kg	10	12/3/2004
Fluorene	ND	3300		µg/Kg	10	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	3300		µg/Kg	10	12/3/2004
Naphthalene	ND	3300		µg/Kg	10	12/3/2004
Phenanthrene	ND	3300		µg/Kg	10	12/3/2004
Pyrene	ND	3300		µg/Kg	10	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-3-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-007	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	ND	1.0		mg/Kg	1	12/6/2004
Barium	140	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	5.5	1.0		mg/Kg	1	12/6/2004
Cobalt	2.8	1.0		mg/Kg	1	12/6/2004
Copper	6.4	1.0		mg/Kg	1	12/6/2004
Lead	6.2	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	4.2	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	9.9	1.0		mg/Kg	1	12/6/2004
Zinc	16	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	210	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C16-C22	35	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C23-C32	220	10		mg/Kg	1	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041202B	QC Batch: E04VS344			PrepDate:	11/30/2004	Analyst: **JV**
GRO	ND	0.98		mg/Kg	1	12/3/2004
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-3-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-007	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.7		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	5.7		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	5.7		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	5.7		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	5.7		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	5.7		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	5.7		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	5.7		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	5.7		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	5.7		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	ND	5.7		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	5.7		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	5.7		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	5.7		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	5.7		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	ND	5.7		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	5.7		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	5.7		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	5.7		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	5.7		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	5.7		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	5.7		µg/Kg	1	12/1/2004
4-Isopropyltoluene	ND	5.7		µg/Kg	1	12/1/2004
Benzene	ND	5.7		µg/Kg	1	12/1/2004
Bromobenzene	ND	5.7		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	5.7		µg/Kg	1	12/1/2004
Bromoform	ND	5.7		µg/Kg	1	12/1/2004
Bromomethane	ND	5.7		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	5.7		µg/Kg	1	12/1/2004
Chlorobenzene	ND	5.7		µg/Kg	1	12/1/2004
Chloroethane	ND	5.7		µg/Kg	1	12/1/2004
Chloroform	ND	5.7		µg/Kg	1	12/1/2004
Chloromethane	ND	5.7		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	5.7		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	5.7		µg/Kg	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
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R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Lab Order: 072617
Project: Bloomfield II, 205372005
Lab ID: 072617-007

Client Sample ID: T1-3-2
Collection Date: 11/30/2004
Matrix: SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_041201A	QC Batch: R04VS193			PrepDate: 11/30/2004		Analyst: JPC
Dibromochloromethane	ND	5.7		µg/Kg	1	12/1/2004
Dibromomethane	ND	5.7		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	5.7		µg/Kg	1	12/1/2004
Ethylbenzene	ND	5.7		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	5.7		µg/Kg	1	12/1/2004
Isopropylbenzene	ND	5.7		µg/Kg	1	12/1/2004
m,p-Xylene	ND	5.7		µg/Kg	1	12/1/2004
Methylene chloride	ND	5.7		µg/Kg	1	12/1/2004
n-Butylbenzene	ND	5.7		µg/Kg	1	12/1/2004
n-Propylbenzene	ND	5.7		µg/Kg	1	12/1/2004
Naphthalene	ND	5.7		µg/Kg	1	12/1/2004
o-Xylene	ND	5.7		µg/Kg	1	12/1/2004
sec-Butylbenzene	ND	5.7		µg/Kg	1	12/1/2004
Styrene	ND	5.7		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	5.7		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	5.7		µg/Kg	1	12/1/2004
Toluene	ND	5.7		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	5.7		µg/Kg	1	12/1/2004
Trichloroethene	ND	5.7		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	5.7		µg/Kg	1	12/1/2004
Vinyl chloride	ND	5.7		µg/Kg	1	12/1/2004
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	(EPA 3550B)			**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate: 12/2/2004		Analyst: JWS
2-Methylnaphthalene	ND	3300		µg/Kg	10	12/3/2004
Acenaphthene	ND	3300		µg/Kg	10	12/3/2004
Acenaphthylene	ND	3300		µg/Kg	10	12/3/2004
Anthracene	ND	3300		µg/Kg	10	12/3/2004
Benzo(a)anthracene	ND	3300		µg/Kg	10	12/3/2004
Benzo(a)pyrene	ND	3300		µg/Kg	10	12/3/2004
Benzo(b)fluoranthene	ND	3300		µg/Kg	10	12/3/2004
Benzo(g,h,i)perylene	ND	3300		µg/Kg	10	12/3/2004
Benzo(k)fluoranthene	ND	3300		µg/Kg	10	12/3/2004
Chrysene	ND	3300		µg/Kg	10	12/3/2004
Dibenz(a,h)anthracene	ND	3300		µg/Kg	10	12/3/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T1-3-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-007	**Matrix:**	SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B) **EPA 8270C**

RunID: MS7_041202A QC Batch: 20428 PrepDate: 12/2/2004 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Fluoranthene	ND	3300		µg/Kg	10	12/3/2004
Fluorene	ND	3300		µg/Kg	10	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	3300		µg/Kg	10	12/3/2004
Naphthalene	ND	3300		µg/Kg	10	12/3/2004
Phenanthrene	ND	3300		µg/Kg	10	12/3/2004
Pyrene	ND	3300		µg/Kg	10	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-010	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	ND	1.0		mg/Kg	1	12/6/2004
Barium	42	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	6.0	1.0		mg/Kg	1	12/6/2004
Cobalt	3.1	1.0		mg/Kg	1	12/6/2004
Copper	6.6	1.0		mg/Kg	1	12/6/2004
Lead	1.8	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	4.7	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	10	1.0		mg/Kg	1	12/6/2004
Zinc	13	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	890	50		mg/Kg	5	12/7/2004
T/R Hydrocarbons: C10-C12	250	50		mg/Kg	5	12/7/2004
T/R Hydrocarbons: C13-C15	590	50		mg/Kg	5	12/7/2004
T/R Hydrocarbons: C16-C22	1900	50		mg/Kg	5	12/7/2004
T/R Hydrocarbons: C23-C32	2800	50		mg/Kg	5	12/7/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	15	1.1		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
(EPA 7471)				**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-010	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.0		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	5.0		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	5.0		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	5.0		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	5.0		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	5.0		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	5.0		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	5.0		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	5.0		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	5.0		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	250	5.0		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	9.9		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	5.0		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	5.0		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	5.0		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	5.0		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	28	5.0		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	5.0		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	5.0		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	5.0		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	5.0		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	5.0		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	5.0		µg/Kg	1	12/1/2004
4-Isopropyltoluene	17	5.0		µg/Kg	1	12/1/2004
Benzene	ND	5.0		µg/Kg	1	12/1/2004
Bromobenzene	ND	5.0		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	5.0		µg/Kg	1	12/1/2004
Bromoform	ND	5.0		µg/Kg	1	12/1/2004
Bromomethane	ND	5.0		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	5.0		µg/Kg	1	12/1/2004
Chlorobenzene	ND	5.0		µg/Kg	1	12/1/2004
Chloroethane	ND	5.0		µg/Kg	1	12/1/2004
Chloroform	ND	5.0		µg/Kg	1	12/1/2004
Chloromethane	ND	5.0		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	5.0		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	5.0		µg/Kg	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-010	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_041201A	QC Batch: R04VS193			PrepDate: 11/30/2004		Analyst: **JPC**
Dibromochloromethane	ND	5.0		µg/Kg	1	12/1/2004
Dibromomethane	ND	5.0		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	5.0		µg/Kg	1	12/1/2004
Ethylbenzene	16	5.0		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	5.0		µg/Kg	1	12/1/2004
Isopropylbenzene	33	5.0		µg/Kg	1	12/1/2004
m,p-Xylene	59	5.0		µg/Kg	1	12/1/2004
Methylene chloride	ND	5.0		µg/Kg	1	12/1/2004
n-Butylbenzene	12	5.0		µg/Kg	1	12/1/2004
n-Propylbenzene	45	5.0		µg/Kg	1	12/1/2004
Naphthalene	110	5.0		µg/Kg	1	12/1/2004
o-Xylene	ND	5.0		µg/Kg	1	12/1/2004
sec-Butylbenzene	17	5.0		µg/Kg	1	12/1/2004
Styrene	ND	5.0		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	5.0		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	5.0		µg/Kg	1	12/1/2004
Toluene	ND	5.0		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	5.0		µg/Kg	1	12/1/2004
Trichloroethene	ND	5.0		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	5.0		µg/Kg	1	12/1/2004
Vinyl chloride	ND	5.0		µg/Kg	1	12/1/2004
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	(EPA 3550B)			**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate: 12/2/2004		Analyst: **JWS**
2-Methylnaphthalene	ND	16000		µg/Kg	50	12/3/2004
Acenaphthene	ND	16000		µg/Kg	50	12/3/2004
Acenaphthylene	ND	16000		µg/Kg	50	12/3/2004
Anthracene	ND	16000		µg/Kg	50	12/3/2004
Benzo(a)anthracene	ND	16000		µg/Kg	50	12/3/2004
Benzo(a)pyrene	ND	16000		µg/Kg	50	12/3/2004
Benzo(b)fluoranthene	ND	16000		µg/Kg	50	12/3/2004
Benzo(g,h,i)perylene	ND	16000		µg/Kg	50	12/3/2004
Benzo(k)fluoranthene	ND	16000		µg/Kg	50	12/3/2004
Chrysene	ND	16000		µg/Kg	50	12/3/2004
Dibenz(a,h)anthracene	ND	16000		µg/Kg	50	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-010	**Matrix:**	SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS7_041202A QC Batch: 20428 PrepDate: 12/2/2004 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Fluoranthene	ND	16000		µg/Kg	50	12/3/2004
Fluorene	ND	16000		µg/Kg	50	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	16000		µg/Kg	50	12/3/2004
Naphthalene	ND	16000		µg/Kg	50	12/3/2004
Phenanthrene	ND	16000		µg/Kg	50	12/3/2004
Pyrene	ND	16000		µg/Kg	50	12/3/2004

Qualifiers:

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J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-013	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	ND	1.0		mg/Kg	1	12/6/2004
Barium	50	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	7.7	1.0		mg/Kg	1	12/6/2004
Cobalt	3.9	1.0		mg/Kg	1	12/6/2004
Copper	8.3	1.0		mg/Kg	1	12/6/2004
Lead	2.1	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	6.1	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	13	1.0		mg/Kg	1	12/6/2004
Zinc	15	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	19	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C10-C12	16	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C13-C15	35	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C16-C22	69	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C23-C32	66	10		mg/Kg	1	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	ND	1.2		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-013	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.4		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	5.4		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	5.4		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	5.4		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	5.4		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	5.4		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	5.4		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	5.4		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	5.4		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	5.4		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	ND	5.4		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	5.4		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	5.4		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	5.4		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	5.4		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	ND	5.4		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	5.4		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	5.4		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	5.4		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	5.4		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	5.4		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	5.4		µg/Kg	1	12/1/2004
4-Isopropyltoluene	ND	5.4		µg/Kg	1	12/1/2004
Benzene	ND	5.4		µg/Kg	1	12/1/2004
Bromobenzene	ND	5.4		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	5.4		µg/Kg	1	12/1/2004
Bromoform	ND	5.4		µg/Kg	1	12/1/2004
Bromomethane	ND	5.4		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	5.4		µg/Kg	1	12/1/2004
Chlorobenzene	ND	5.4		µg/Kg	1	12/1/2004
Chloroethane	ND	5.4		µg/Kg	1	12/1/2004
Chloroform	ND	5.4		µg/Kg	1	12/1/2004
Chloromethane	ND	5.4		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	5.4		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	5.4		µg/Kg	1	12/1/2004

Qualifiers:

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J - Analyte detected below quanititation limits
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DO - Surrogate Diluted Out
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R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-013	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_041201A	QC Batch: R04VS193			PrepDate:	11/30/2004	Analyst: JPC
Dibromochloromethane	ND	5.4		µg/Kg	1	12/1/2004
Dibromomethane	ND	5.4		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	5.4		µg/Kg	1	12/1/2004
Ethylbenzene	ND	5.4		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	5.4		µg/Kg	1	12/1/2004
Isopropylbenzene	ND	5.4		µg/Kg	1	12/1/2004
m,p-Xylene	ND	5.4		µg/Kg	1	12/1/2004
Methylene chloride	ND	5.4		µg/Kg	1	12/1/2004
n-Butylbenzene	ND	5.4		µg/Kg	1	12/1/2004
n-Propylbenzene	ND	5.4		µg/Kg	1	12/1/2004
Naphthalene	ND	5.4		µg/Kg	1	12/1/2004
o-Xylene	ND	5.4		µg/Kg	1	12/1/2004
sec-Butylbenzene	ND	5.4		µg/Kg	1	12/1/2004
Styrene	ND	5.4		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	5.4		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	5.4		µg/Kg	1	12/1/2004
Toluene	ND	5.4		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	5.4		µg/Kg	1	12/1/2004
Trichloroethene	ND	5.4		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	5.4		µg/Kg	1	12/1/2004
Vinyl chloride	ND	5.4		µg/Kg	1	12/1/2004
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
(EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate:	12/2/2004	Analyst: JWS
2-Methylnaphthalene	ND	330		µg/Kg	1	12/3/2004
Acenaphthene	ND	330		µg/Kg	1	12/3/2004
Acenaphthylene	ND	330		µg/Kg	1	12/3/2004
Anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)pyrene	ND	330		µg/Kg	1	12/3/2004
Benzo(b)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	12/3/2004
Benzo(k)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Chrysene	ND	330		µg/Kg	1	12/3/2004
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-013	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428				PrepDate: 12/2/2004	Analyst: **JWS**
Fluoranthene	ND	330		µg/Kg	1	12/3/2004
Fluorene	ND	330		µg/Kg	1	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	12/3/2004
Naphthalene	ND	330		µg/Kg	1	12/3/2004
Phenanthrene	ND	330		µg/Kg	1	12/3/2004
Pyrene	ND	330		µg/Kg	1	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-3-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-016	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	ND	1.0		mg/Kg	1	12/6/2004
Barium	59	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	6.3	1.0		mg/Kg	1	12/6/2004
Cobalt	3.3	1.0		mg/Kg	1	12/6/2004
Copper	7.0	1.0		mg/Kg	1	12/6/2004
Lead	32	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	4.9	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	11	1.0		mg/Kg	1	12/6/2004
Zinc	18	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	17	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C16-C22	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C23-C32	15	10		mg/Kg	1	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	ND	0.83		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

Qualifiers:

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DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Page 21 of 32

Results are wet unless otherwise specified

Advanced Technology Laboratories
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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-3-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-016	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	4.9		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	4.9		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	4.9		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	4.9		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	4.9		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	4.9		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	4.9		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	4.9		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	4.9		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	4.9		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	ND	4.9		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	9.7		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	4.9		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	4.9		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	4.9		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	4.9		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	ND	4.9		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	4.9		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	4.9		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	4.9		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	4.9		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	4.9		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	4.9		µg/Kg	1	12/1/2004
4-Isopropyltoluene	ND	4.9		µg/Kg	1	12/1/2004
Benzene	ND	4.9		µg/Kg	1	12/1/2004
Bromobenzene	ND	4.9		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	4.9		µg/Kg	1	12/1/2004
Bromoform	ND	4.9		µg/Kg	1	12/1/2004
Bromomethane	ND	4.9		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	4.9		µg/Kg	1	12/1/2004
Chlorobenzene	ND	4.9		µg/Kg	1	12/1/2004
Chloroethane	ND	4.9		µg/Kg	1	12/1/2004
Chloroform	ND	4.9		µg/Kg	1	12/1/2004
Chloromethane	ND	4.9		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	4.9		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	4.9		µg/Kg	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Lab Order: 072617
Project: Bloomfield II, 205372005
Lab ID: 072617-016

Client Sample ID: T2-3-2
Collection Date: 11/30/2004
Matrix: SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_041201A	QC Batch: R04VS193			PrepDate:	11/30/2004	Analyst: **JPC**
Dibromochloromethane	ND	4.9		µg/Kg	1	12/1/2004
Dibromomethane	ND	4.9		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	4.9		µg/Kg	1	12/1/2004
Ethylbenzene	ND	4.9		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	4.9		µg/Kg	1	12/1/2004
Isopropylbenzene	ND	4.9		µg/Kg	1	12/1/2004
m,p-Xylene	ND	4.9		µg/Kg	1	12/1/2004
Methylene chloride	ND	4.9		µg/Kg	1	12/1/2004
n-Butylbenzene	ND	4.9		µg/Kg	1	12/1/2004
n-Propylbenzene	ND	4.9		µg/Kg	1	12/1/2004
Naphthalene	ND	4.9		µg/Kg	1	12/1/2004
o-Xylene	ND	4.9		µg/Kg	1	12/1/2004
sec-Butylbenzene	ND	4.9		µg/Kg	1	12/1/2004
Styrene	ND	4.9		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	4.9		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	4.9		µg/Kg	1	12/1/2004
Toluene	ND	4.9		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	4.9		µg/Kg	1	12/1/2004
Trichloroethene	ND	4.9		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	4.9		µg/Kg	1	12/1/2004
Vinyl chloride	ND	4.9		µg/Kg	1	12/1/2004
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
(EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate:	12/2/2004	Analyst: **JWS**
2-Methylnaphthalene	ND	330		µg/Kg	1	12/3/2004
Acenaphthene	ND	330		µg/Kg	1	12/3/2004
Acenaphthylene	ND	330		µg/Kg	1	12/3/2004
Anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)pyrene	ND	330		µg/Kg	1	12/3/2004
Benzo(b)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	12/3/2004
Benzo(k)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Chrysene	ND	330		µg/Kg	1	12/3/2004
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	12/3/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
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DO - Surrogate Diluted Out
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R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T2-3-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-016	**Matrix:**	SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS
(EPA 3550B) **EPA 8270C**

RunID: MS7_041202A QC Batch: 20428 PrepDate: 12/2/2004 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Fluoranthene	ND	330		µg/Kg	1	12/3/2004
Fluorene	ND	330		µg/Kg	1	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	12/3/2004
Naphthalene	ND	330		µg/Kg	1	12/3/2004
Phenanthrene	ND	330		µg/Kg	1	12/3/2004
Pyrene	ND	330		µg/Kg	1	12/3/2004

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Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Client Sample ID: T3-1-2
Lab Order: 072617
Project: Bloomfield II, 205372005
Collection Date: 11/30/2004
Lab ID: 072617-019
Matrix: SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	1.9	1.0		mg/Kg	1	12/6/2004
Barium	49	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	8.8	1.0		mg/Kg	1	12/6/2004
Cobalt	4.9	1.0		mg/Kg	1	12/6/2004
Copper	9.4	1.0		mg/Kg	1	12/6/2004
Lead	3.0	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	7.0	1.0		mg/Kg	1	12/6/2004
Selenium	1.7	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	15	1.0		mg/Kg	1	12/6/2004
Zinc	16	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	18	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C10-C12	11	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C16-C22	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C23-C32	14	10		mg/Kg	1	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	ND	1.0		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
(EPA 7471)				**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

Qualifiers:
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Page 25 of 32

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T3-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-019	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: JPC

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.8		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	5.8		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	5.8		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	5.8		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	5.8		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	5.8		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	5.8		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	5.8		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	5.8		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	5.8		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	ND	5.8		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	12		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	5.8		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	5.8		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	5.8		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	5.8		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	ND	5.8		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	5.8		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	5.8		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	5.8		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	5.8		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	5.8		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	5.8		µg/Kg	1	12/1/2004
4-Isopropyltoluene	ND	5.8		µg/Kg	1	12/1/2004
Benzene	ND	5.8		µg/Kg	1	12/1/2004
Bromobenzene	ND	5.8		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	5.8		µg/Kg	1	12/1/2004
Bromoform	ND	5.8		µg/Kg	1	12/1/2004
Bromomethane	ND	5.8		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	5.8		µg/Kg	1	12/1/2004
Chlorobenzene	ND	5.8		µg/Kg	1	12/1/2004
Chloroethane	ND	5.8		µg/Kg	1	12/1/2004
Chloroform	ND	5.8		µg/Kg	1	12/1/2004
Chloromethane	ND	5.8		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	5.8		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	5.8		µg/Kg	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Page 26 of 32

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T3-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-019	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	5.8		µg/Kg	1	12/1/2004
Dibromomethane	ND	5.8		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	5.8		µg/Kg	1	12/1/2004
Ethylbenzene	ND	5.8		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	5.8		µg/Kg	1	12/1/2004
Isopropylbenzene	ND	5.8		µg/Kg	1	12/1/2004
m,p-Xylene	ND	5.8		µg/Kg	1	12/1/2004
Methylene chloride	ND	5.8		µg/Kg	1	12/1/2004
n-Butylbenzene	ND	5.8		µg/Kg	1	12/1/2004
n-Propylbenzene	ND	5.8		µg/Kg	1	12/1/2004
Naphthalene	ND	5.8		µg/Kg	1	12/1/2004
o-Xylene	ND	5.8		µg/Kg	1	12/1/2004
sec-Butylbenzene	ND	5.8		µg/Kg	1	12/1/2004
Styrene	ND	5.8		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	5.8		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	5.8		µg/Kg	1	12/1/2004
Toluene	ND	5.8		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	5.8		µg/Kg	1	12/1/2004
Trichloroethene	ND	5.8		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	5.8		µg/Kg	1	12/1/2004
Vinyl chloride	ND	5.8		µg/Kg	1	12/1/2004

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS7_041202A QC Batch: 20428 PrepDate: 12/2/2004 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
2-Methylnaphthalene	ND	330		µg/Kg	1	12/3/2004
Acenaphthene	ND	330		µg/Kg	1	12/3/2004
Acenaphthylene	ND	330		µg/Kg	1	12/3/2004
Anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)pyrene	ND	330		µg/Kg	1	12/3/2004
Benzo(b)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	12/3/2004
Benzo(k)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Chrysene	ND	330		µg/Kg	1	12/3/2004
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	12/3/2004

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T3-1-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-019	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428			PrepDate:	12/2/2004	Analyst: **JWS**
Fluoranthene	ND	330		µg/Kg	1	12/3/2004
Fluorene	ND	330		µg/Kg	1	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	12/3/2004
Naphthalene	ND	330		µg/Kg	1	12/3/2004
Phenanthrene	ND	330		µg/Kg	1	12/3/2004
Pyrene	ND	330		µg/Kg	1	12/3/2004

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Client Sample ID: T3-2-2
Lab Order: 072617
Project: Bloomfield II, 205372005
Collection Date: 11/30/2004
Lab ID: 072617-022
Matrix: SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP6_041206A	QC Batch: 20458			PrepDate:	12/6/2004	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	12/6/2004
Arsenic	ND	1.0		mg/Kg	1	12/6/2004
Barium	47	1.0		mg/Kg	1	12/6/2004
Beryllium	ND	1.0		mg/Kg	1	12/6/2004
Cadmium	ND	1.0		mg/Kg	1	12/6/2004
Chromium	6.8	1.0		mg/Kg	1	12/6/2004
Cobalt	3.7	1.0		mg/Kg	1	12/6/2004
Copper	7.3	1.0		mg/Kg	1	12/6/2004
Lead	1.9	1.0		mg/Kg	1	12/6/2004
Molybdenum	ND	1.0		mg/Kg	1	12/6/2004
Nickel	5.4	1.0		mg/Kg	1	12/6/2004
Selenium	ND	1.0		mg/Kg	1	12/6/2004
Silver	ND	1.0		mg/Kg	1	12/6/2004
Thallium	ND	1.0		mg/Kg	1	12/6/2004
Vanadium	12	1.0		mg/Kg	1	12/6/2004
Zinc	15	1.0		mg/Kg	1	12/6/2004
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC7_041130B	QC Batch: 20414			PrepDate:	12/1/2004	Analyst: **CBR**
T/R Hydrocarbons: >C32	21	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C10-C12	11	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C16-C22	ND	10		mg/Kg	1	12/5/2004
T/R Hydrocarbons: C23-C32	15	10		mg/Kg	1	12/5/2004
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_041201A	QC Batch: E04VS342			PrepDate:	11/30/2004	Analyst: **JV**
GRO	ND	0.97		mg/Kg	1	12/1/2004
MERCURY BY COLD VAPOR TECHNIQUE						
(EPA 7471)				**EPA 7471A**		
RunID: AA1_041206A	QC Batch: 20456			PrepDate:	12/6/2004	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	12/6/2004

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R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Client Sample ID: T3-2-2
Lab Order: 072617
Project: Bloomfield II, 205372005
Collection Date: 11/30/2004
Lab ID: 072617-022
Matrix: SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_041201A QC Batch: R04VS193 PrepDate: 11/30/2004 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.5		µg/Kg	1	12/1/2004
1,1,1-Trichloroethane	ND	5.5		µg/Kg	1	12/1/2004
1,1,2,2-Tetrachloroethane	ND	5.5		µg/Kg	1	12/1/2004
1,1,2-Trichloroethane	ND	5.5		µg/Kg	1	12/1/2004
1,1-Dichloroethane	ND	5.5		µg/Kg	1	12/1/2004
1,1-Dichloroethene	ND	5.5		µg/Kg	1	12/1/2004
1,1-Dichloropropene	ND	5.5		µg/Kg	1	12/1/2004
1,2,3-Trichlorobenzene	ND	5.5		µg/Kg	1	12/1/2004
1,2,3-Trichloropropane	ND	5.5		µg/Kg	1	12/1/2004
1,2,4-Trichlorobenzene	ND	5.5		µg/Kg	1	12/1/2004
1,2,4-Trimethylbenzene	ND	5.5		µg/Kg	1	12/1/2004
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	12/1/2004
1,2-Dibromoethane	ND	5.5		µg/Kg	1	12/1/2004
1,2-Dichlorobenzene	ND	5.5		µg/Kg	1	12/1/2004
1,2-Dichloroethane	ND	5.5		µg/Kg	1	12/1/2004
1,2-Dichloropropane	ND	5.5		µg/Kg	1	12/1/2004
1,3,5-Trimethylbenzene	ND	5.5		µg/Kg	1	12/1/2004
1,3-Dichlorobenzene	ND	5.5		µg/Kg	1	12/1/2004
1,3-Dichloropropane	ND	5.5		µg/Kg	1	12/1/2004
1,4-Dichlorobenzene	ND	5.5		µg/Kg	1	12/1/2004
2,2-Dichloropropane	ND	5.5		µg/Kg	1	12/1/2004
2-Chlorotoluene	ND	5.5		µg/Kg	1	12/1/2004
4-Chlorotoluene	ND	5.5		µg/Kg	1	12/1/2004
4-Isopropyltoluene	ND	5.5		µg/Kg	1	12/1/2004
Benzene	ND	5.5		µg/Kg	1	12/1/2004
Bromobenzene	ND	5.5		µg/Kg	1	12/1/2004
Bromodichloromethane	ND	5.5		µg/Kg	1	12/1/2004
Bromoform	ND	5.5		µg/Kg	1	12/1/2004
Bromomethane	ND	5.5		µg/Kg	1	12/1/2004
Carbon tetrachloride	ND	5.5		µg/Kg	1	12/1/2004
Chlorobenzene	ND	5.5		µg/Kg	1	12/1/2004
Chloroethane	ND	5.5		µg/Kg	1	12/1/2004
Chloroform	ND	5.5		µg/Kg	1	12/1/2004
Chloromethane	ND	5.5		µg/Kg	1	12/1/2004
cis-1,2-Dichloroethene	ND	5.5		µg/Kg	1	12/1/2004
cis-1,3-Dichloropropene	ND	5.5		µg/Kg	1	12/1/2004

Qualifiers:
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R - RPD outside accepted recovery limits
E - Value above quantitation range
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Results are wet unless otherwise specified

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Lab Order: 072617
Project: Bloomfield II, 205372005
Lab ID: 072617-022

Client Sample ID: T3-2-2
Collection Date: 11/30/2004
Matrix: SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8260B**		
RunID: MS3_041201A	QC Batch: R04VS193			PrepDate:	11/30/2004	Analyst: **JPC**
Dibromochloromethane	ND	5.5		µg/Kg	1	12/1/2004
Dibromomethane	ND	5.5		µg/Kg	1	12/1/2004
Dichlorodifluoromethane	ND	5.5		µg/Kg	1	12/1/2004
Ethylbenzene	ND	5.5		µg/Kg	1	12/1/2004
Hexachlorobutadiene	ND	5.5		µg/Kg	1	12/1/2004
Isopropylbenzene	ND	5.5		µg/Kg	1	12/1/2004
m,p-Xylene	ND	5.5		µg/Kg	1	12/1/2004
Methylene chloride	ND	5.5		µg/Kg	1	12/1/2004
n-Butylbenzene	ND	5.5		µg/Kg	1	12/1/2004
n-Propylbenzene	ND	5.5		µg/Kg	1	12/1/2004
Naphthalene	ND	5.5		µg/Kg	1	12/1/2004
o-Xylene	ND	5.5		µg/Kg	1	12/1/2004
sec-Butylbenzene	ND	5.5		µg/Kg	1	12/1/2004
Styrene	ND	5.5		µg/Kg	1	12/1/2004
tert-Butylbenzene	ND	5.5		µg/Kg	1	12/1/2004
Tetrachloroethene	ND	5.5		µg/Kg	1	12/1/2004
Toluene	ND	5.5		µg/Kg	1	12/1/2004
trans-1,2-Dichloroethene	ND	5.5		µg/Kg	1	12/1/2004
Trichloroethene	ND	5.5		µg/Kg	1	12/1/2004
Trichlorofluoromethane	ND	5.5		µg/Kg	1	12/1/2004
Vinyl chloride	ND	5.5		µg/Kg	1	12/1/2004
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8270C**		
	(EPA 3550B)					
RunID: MS7_041202A	QC Batch: 20428			PrepDate:	12/2/2004	Analyst: **JWS**
2-Methylnaphthalene	ND	330		µg/Kg	1	12/3/2004
Acenaphthene	ND	330		µg/Kg	1	12/3/2004
Acenaphthylene	ND	330		µg/Kg	1	12/3/2004
Anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)anthracene	ND	330		µg/Kg	1	12/3/2004
Benzo(a)pyrene	ND	330		µg/Kg	1	12/3/2004
Benzo(b)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	12/3/2004
Benzo(k)fluoranthene	ND	330		µg/Kg	1	12/3/2004
Chrysene	ND	330		µg/Kg	1	12/3/2004
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	12/3/2004

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R - RPD outside accepted recovery limits
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Results are wet unless otherwise specified

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T3-2-2
Lab Order:	072617		
Project:	Bloomfield II, 205372005	**Collection Date:**	11/30/2004
Lab ID:	072617-022	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS7_041202A	QC Batch: 20428				PrepDate: 12/2/2004	Analyst: **JWS**
Fluoranthene	ND	330		µg/Kg	1	12/3/2004
Fluorene	ND	330		µg/Kg	1	12/3/2004
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	12/3/2004
Naphthalene	ND	330		µg/Kg	1	12/3/2004
Phenanthrene	ND	330		µg/Kg	1	12/3/2004
Pyrene	ND	330		µg/Kg	1	12/3/2004

Qualifiers:

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-20458** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **ICP6_041206A**
Client ID: **ZZZZZ** Batch ID: **20458** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **12/6/2004** SeqNo: **646006**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: **LCS-20458** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **ICP6_041206A**
Client ID: **ZZZZZ** Batch ID: **20458** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **12/6/2004** SeqNo: **646008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.41	2.0	50	0	94.8	80	120	0	0		
Arsenic	46.14	1.0	50	0	92.3	80	120	0	0		
Barium	46.54	1.0	50	0	93.1	80	120	0	0		
Beryllium	47.28	1.0	50	0	94.6	80	120	0	0		
Cadmium	46.24	1.0	50	0	92.5	80	120	0	0		
Chromium	46.12	1.0	50	0	92.2	80	120	0	0		
Cobalt	44.39	1.0	50	0	88.8	80	120	0	0		
Copper	46.69	2.0	50	0	93.4	80	120	0	0		

Qualifiers:
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J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **LCS-20458** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **ICP6_041206A**
Client ID: **ZZZZZ** Batch ID: **20458** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **12/6/2004** SeqNo: **646008**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	44.11	1.0	50	0	88.2	80	120	0	0		
Molybdenum	47.08	1.0	50	0	94.2	80	120	0	0		
Nickel	44.42	1.0	50	0	88.8	80	120	0	0		
Selenium	47.2	1.0	50	0	94.4	80	120	0	0		
Silver	46.68	1.0	50	0	93.4	80	120	0	0		
Thallium	45.44	1.0	50	0	90.9	80	120	0	0		
Vanadium	48.08	1.0	50	0	96.2	80	120	0	0		
Zinc	44.18	1.0	50	0	88.4	80	120	0	0		

Sample ID: **072617-022GMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **ICP6_041206A**
Client ID: **T3-2-2** Batch ID: **20458** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **12/6/2004** SeqNo: **646124**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	88.74	1.0	125	0	71	23	118	0	0		
Arsenic	103.5	1.0	125	0.9116	82	64	111	0	0		
Barium	141.7	1.0	125	47.32	75.5	36	146	0	0		
Beryllium	102.8	1.0	125	0	82.2	50	120	0	0		
Cadmium	101.3	1.0	125	0	81.1	62	107	0	0		
Chromium	108.5	1.0	125	6.765	81.4	63	119	0	0		
Cobalt	102.2	1.0	125	3.71	78.8	63	111	0	0		
Copper	117.3	1.0	125	7.288	88	58	136	0	0		
Lead	98.35	1.0	125	1.941	77.1	47	125	0	0		
Molybdenum	105	1.0	125	0	84	63	116	0	0		
Nickel	103.3	1.0	125	5.359	78.4	57	116	0	0		
Selenium	98.18	1.0	125	0	78.5	47	118	0	0		
Silver	100.8	1.0	125	0	80.6	48	125	0	0		
Thallium	95.65	1.0	125	0	76.5	49	116	0	0		
Vanadium	120.2	1.0	125	11.77	86.7	65	122	0	0		
Zinc	108.2	1.0	125	14.74	74.7	36	140	0	0		

Qualifiers:
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **072617-022GMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **ICP6_041206A**
Client ID: **T3-2-2** Batch ID: **20458** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **12/6/2004** SeqNo: **646125**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	91.01	1.0	125	0	72.8	23	118	88.74	2.52	20	
Arsenic	104.9	1.0	125	0.9116	83.2	64	111	103.5	1.41	20	
Barium	149.2	1.0	125	47.32	81.5	36	146	141.7	5.15	20	
Beryllium	104.4	1.0	125	0	83.6	50	120	102.8	1.60	20	
Cadmium	102.7	1.0	125	0	82.1	62	107	101.3	1.34	20	
Chromium	110.3	1.0	125	6.765	82.8	63	119	108.5	1.66	20	
Cobalt	104	1.0	125	3.71	80.3	63	111	102.2	1.78	20	
Copper	119.5	1.0	125	7.288	89.8	58	136	117.3	1.84	20	
Lead	100.5	1.0	125	1.941	78.9	47	125	98.35	2.18	20	
Molybdenum	107	1.0	125	0	85.6	63	116	105	1.85	20	
Nickel	104.9	1.0	125	5.359	79.6	57	116	103.3	1.48	20	
Selenium	100.3	1.0	125	0	80.2	47	118	98.18	2.14	20	
Silver	102.8	1.0	125	0	82.2	48	125	100.8	2.00	20	
Thallium	97.8	1.0	125	0	78.2	49	116	95.65	2.22	20	
Vanadium	122.2	1.0	125	11.77	88.3	65	122	120.2	1.64	20	
Zinc	112.4	1.0	125	14.74	78.1	36	140	108.2	3.83	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: **MB-20456** SampType: **MBLK** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **AA1_041206A**
Client ID: **ZZZZZ** Batch ID: **20456** TestNo: **EPA 7471A** (EPA 7471) Analysis Date: **12/6/2004** SeqNo: **645985**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

Sample ID: **LCS-20456** SampType: **LCS** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **AA1_041206A**
Client ID: **ZZZZZ** Batch ID: **20456** TestNo: **EPA 7471A** (EPA 7471) Analysis Date: **12/6/2004** SeqNo: **645984**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.225	0.10	2.08	0	107	80	120	0	0		

Sample ID: **072646-001AMS** SampType: **MS** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **AA1_041206A**
Client ID: **ZZZZZ** Batch ID: **20456** TestNo: **EPA 7471A** (EPA 7471) Analysis Date: **12/6/2004** SeqNo: **645982**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.8158	0.10	0.83	0.03322	94.3	62	146	0	0		

Sample ID: **072646-001AMSD** SampType: **MSD** TestCode: **7471_S** Units: **mg/Kg** Prep Date: **12/6/2004** Run ID: **AA1_041206A**
Client ID: **ZZZZZ** Batch ID: **20456** TestNo: **EPA 7471A** (EPA 7471) Analysis Date: **12/6/2004** SeqNo: **645983**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.8107	0.10	0.83	0.03322	93.7	62	146	0.8158	0.624	30	

Qualifiers:
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E120104MB | SampType: MBLK | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041201A
Client ID: ZZZZZ | Batch ID: E04VS342 | TestNo: EPA 8015B(M | Analysis Date: 12/1/2004 | SeqNo: 644190

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	87.98	0	100	0	88	27	135	0	0		

Sample ID: E120204MB2 | SampType: MBLK | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041202B
Client ID: ZZZZZ | Batch ID: E04VS344 | TestNo: EPA 8015B(M | Analysis Date: 12/2/2004 | SeqNo: 645181

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	90.48	0	100	0	90.5	27	135	0	0		

Sample ID: E120104LC | SampType: LCS | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041201A
Client ID: ZZZZZ | Batch ID: E04VS342 | TestNo: EPA 8015B(M | Analysis Date: 12/1/2004 | SeqNo: 644194

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.699	1.0	5	0	94	76	116	0	0		
Surr: Bromofluorobenzene (FID)	112.5	0	100	0	113	27	135	0	0		

Sample ID: E120204LC2 | SampType: LCS | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041202B
Client ID: ZZZZZ | Batch ID: E04VS344 | TestNo: EPA 8015B(M | Analysis Date: 12/3/2004 | SeqNo: 645197

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.309	1.0	5	0	86.2	76	116	0	0		
Surr: Bromofluorobenzene (FID)	118.2	0	100	0	118	27	135	0	0		

Sample ID: 072627-006AMS | SampType: MS | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041201A
Client ID: ZZZZZ | Batch ID: E04VS342 | TestNo: EPA 8015B(M | Analysis Date: 12/1/2004 | SeqNo: 644192

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	409.8	50	250	343.4	26.5	27	137	0	0		S

Qualifiers:
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J - Analyte detected below quantitation limits
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: 072627-006AMS | SampType: MS | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041201A
Client ID: ZZZZZ | Batch ID: E04VS342 | TestNo: EPA 8015B(M | Analysis Date: 12/1/2004 | SeqNo: 644192

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Bromofluorobenzene (FID)	4749	0	5000	0	95	27	135	0	0		

Sample ID: 072648-024AMS | SampType: MS | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041202B
Client ID: ZZZZZ | Batch ID: E04VS344 | TestNo: EPA 8015B(M | Analysis Date: 12/3/2004 | SeqNo: 645199

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	2.789	1.0	5	0	55.8	27	137	0	0		
Surr: Bromofluorobenzene (FID)	95.45	0	100	0	95.4	27	135	0	0		

Sample ID: 072627-006AMSD | SampType: MSD | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041201A
Client ID: ZZZZZ | Batch ID: E04VS342 | TestNo: EPA 8015B(M | Analysis Date: 12/1/2004 | SeqNo: 644193

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	476.8	50	250	343.4	53.3	27	137	409.8	15.1	30	
Surr: Bromofluorobenzene (FID)	6084	0	5000	0	122	27	135	0	0	0	

Sample ID: 072648-024AMSD | SampType: MSD | TestCode: 8015_S_G 50 | Units: mg/Kg | Prep Date: | Run ID: GC2_041202B
Client ID: ZZZZZ | Batch ID: E04VS344 | TestNo: EPA 8015B(M | Analysis Date: 12/3/2004 | SeqNo: 645196

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	3.859	1.0	5	0	77.2	27	137	2.789	32.2	30	R
Surr: Bromofluorobenzene (FID)	113.4	0	100	0	113	27	135	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: R041201MB2 SampType: MBLK TestCode: 8260_S_5035 Units: µg/Kg Prep Date: Run ID: MS3_041201A
Client ID: ZZZZZ Batch ID: R04VS193 TestNo: EPA 8260B Analysis Date: 12/1/2004 SeqNo: 644217

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
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CLIENT: Ninyo & Moore
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R041201MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_041201A**
Client ID: **ZZZZZ** Batch ID: **R04VS193** TestNo: **EPA 8260B** Analysis Date: **12/1/2004** SeqNo: **644217**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
Methylene chloride	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	48.29	5.0	50	0	96.6	61	164	0	0		
Surr: 4-Bromofluorobenzene	45.49	5.0	50	0	91	80	123	0	0		
Surr: Dibromofluoromethane	50.54	5.0	50	0	101	78	141	0	0		

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: R041201MB2 SampType: MBLK TestCode: 8260_S_5035 Units: µg/Kg Prep Date: Run ID: MS3_041201A
Client ID: ZZZZZ Batch ID: R04VS193 TestNo: EPA 8260B Analysis Date: 12/1/2004 SeqNo: 644217

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	50.33	5.0	50	0	101	86	123	0	0		

Sample ID: R041201LC1 SampType: LCS TestCode: 8260_S_5035 Units: µg/Kg Prep Date: Run ID: MS3_041201A
Client ID: ZZZZZ Batch ID: R04VS193 TestNo: EPA 8260B Analysis Date: 12/1/2004 SeqNo: 644214

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	101	5.0	100	0	101	63	127	0	0		
Benzene	110.2	5.0	100	0	110	88	126	0	0		
Chlorobenzene	116.4	5.0	100	0	116	91	133	0	0		
Toluene	111.4	5.0	100	0	111	87	126	0	0		
Trichloroethene	112.8	5.0	100	0	113	86	134	0	0		
Surr: 1,2-Dichloroethane-d4	40.66	5.0	50	0	81.3	61	164	0	0		
Surr: 4-Bromofluorobenzene	50.85	5.0	50	0	102	80	123	0	0		
Surr: Dibromofluoromethane	45.48	5.0	50	0	91	78	141	0	0		
Surr: Toluene-d8	51.9	5.0	50	0	104	86	123	0	0		

Sample ID: R041201MB1MS SampType: MS TestCode: 8260_S_5035 Units: µg/Kg Prep Date: Run ID: MS3_041201A
Client ID: ZZZZZ Batch ID: R04VS193 TestNo: EPA 8260B Analysis Date: 12/1/2004 SeqNo: 644215

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	110.8	5.0	100	0	111	51	128	0	0		
Benzene	122	5.0	100	0	122	65	136	0	0		
Chlorobenzene	128.5	5.0	100	0	128	52	152	0	0		
Toluene	122.4	5.0	100	0	122	56	142	0	0		
Trichloroethene	125.5	5.0	100	0	126	54	155	0	0		
Surr: 1,2-Dichloroethane-d4	43.32	5.0	50	0	86.6	61	164	0	0		
Surr: 4-Bromofluorobenzene	49.47	5.0	50	0	98.9	80	123	0	0		
Surr: Dibromofluoromethane	46.59	5.0	50	0	93.2	78	141	0	0		
Surr: Toluene-d8	51.07	5.0	50	0	102	86	123	0	0		

Qualifiers:
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B - Analyte detected in the associated Method Blank
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DO- Surrogate dilute out
H - Sample exceeded holding time

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Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R041201MB1MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_041201A**
Client ID: **ZZZZZ** Batch ID: **R04VS193** TestNo: **EPA 8260B** Analysis Date: **12/1/2004** SeqNo: **644216**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	108.9	5.0	100	0	109	51	128	110.8	1.71	30	
Benzene	120.6	5.0	100	0	121	65	136	122	1.09	30	
Chlorobenzene	129.2	5.0	100	0	129	52	152	128.5	0.574	30	
Toluene	120.9	5.0	100	0	121	56	142	122.4	1.27	30	
Trichloroethene	123.3	5.0	100	0	123	54	155	125.5	1.78	30	
Surr: 1,2-Dichloroethane-d4	42.5	5.0	50	0	85	61	164	0	0	30	
Surr: 4-Bromofluorobenzene	51.6	5.0	50	0	103	80	123	0	0	30	
Surr: Dibromofluoromethane	46.9	5.0	50	0	93.8	78	141	0	0	30	
Surr: Toluene-d8	50.74	5.0	50	0	101	86	123	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: MB-20428 | SampType: MBLK | TestCode: 8270_S_FUL | Units: µg/Kg | Prep Date: 12/2/2004 | Run ID: MS7_041202A
Client ID: ZZZZZ | Batch ID: 20428 | TestNo: EPA 8270C (EPA 3550B) | Analysis Date: 12/2/2004 | SeqNo: 645025

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	330									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Chrysene	ND	330									
Dibenz(a,h)anthracene	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Naphthalene	ND	330									
Phenanthrene	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2576	0	3330	0	77.4	37	103	0	0		
Surr: 2-Fluorobiphenyl	2505	0	3330	0	75.2	37	113	0	0		
Surr: 4-Terphenyl-d14	2848	0	3330	0	85.5	46	123	0	0		
Surr: Nitrobenzene-d5	2882	0	3330	0	86.5	39	108	0	0		

Sample ID: MB-20428 | SampType: MBLK | TestCode: 8270_S_FUL | Units: µg/Kg | Prep Date: 12/2/2004 | Run ID: MS6_041202A
Client ID: ZZZZZ | Batch ID: 20428 | TestNo: EPA 8270C (EPA 3550B) | Analysis Date: 12/2/2004 | SeqNo: 645097

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	330									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
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Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-20428** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS6_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/2/2004** SeqNo: **645097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Chrysene	ND	330									
Dibenz(a,h)anthracene	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Naphthalene	ND	330									
Phenanthrene	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2630	0	3330	0	79	37	103	0	0		
Surr: 2-Fluorobiphenyl	2986	0	3330	0	89.7	37	113	0	0		
Surr: 4-Terphenyl-d14	3284	0	3330	0	98.6	46	123	0	0		
Surr: Nitrobenzene-d5	2843	0	3330	0	85.4	39	108	0	0		

Sample ID: **MB-20428** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/3/2004** SeqNo: **645433**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	330									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: MB-20428	SampType: MBLK	TestCode: 8270_S_FUL	Units: µg/Kg	Prep Date: 12/2/2004	Run ID: MS7_041202A
Client ID: ZZZZZ	Batch ID: 20428	TestNo: EPA 8270C	(EPA 3550B)	Analysis Date: 12/3/2004	SeqNo: 645433

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzo(k)fluoranthene	ND	330									
Chrysene	ND	330									
Dibenz(a,h)anthracene	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Naphthalene	ND	330									
Phenanthrene	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2548	0	3330	0	76.5	37	103	0	0		
Surr: 2-Fluorobiphenyl	2522	0	3330	0	75.7	37	113	0	0		
Surr: 4-Terphenyl-d14	3115	0	3330	0	93.5	46	123	0	0		
Surr: Nitrobenzene-d5	2920	0	3330	0	87.7	39	108	0	0		

Sample ID: MB-20428	SampType: MBLK	TestCode: 8270_S_FUL	Units: µg/Kg	Prep Date: 12/2/2004	Run ID: MS7_041202A
Client ID: ZZZZZ	Batch ID: 20428	TestNo: EPA 8270C	(EPA 3550B)	Analysis Date: 12/6/2004	SeqNo: 645952

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	330									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Chrysene	ND	330									
Dibenz(a,h)anthracene	ND	330									
Fluoranthene	ND	330									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-20428** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/6/2004** SeqNo: **645952**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Naphthalene	ND	330									
Phenanthrene	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2566	0	3330	0	77.1	37	103	0	0		
Surr: 2-Fluorobiphenyl	2482	0	3330	0	74.5	37	113	0	0		
Surr: 4-Terphenyl-d14	3400	0	3330	0	102	46	123	0	0		
Surr: Nitrobenzene-d5	2897	0	3330	0	87	39	108	0	0		

Sample ID: **LCS-20428** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/2/2004** SeqNo: **645026**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2339	330	3330	0	70.3	64	95	0	0		
Pyrene	2653	330	3330	0	79.7	63	100	0	0		
Surr: 1,2-Dichlorobenzene-d4	2553	0	3330	0	76.7	37	103	0	0		
Surr: 2-Fluorobiphenyl	2435	0	3330	0	73.1	37	113	0	0		
Surr: 4-Terphenyl-d14	3195	0	3330	0	96	46	123	0	0		
Surr: Nitrobenzene-d5	2965	0	3330	0	89	39	108	0	0		

Sample ID: **LCS-20428** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS6_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/2/2004** SeqNo: **645098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2980	330	3330	0	89.5	64	95	0	0		
Pyrene	2752	330	3330	0	82.7	63	100	0	0		
Surr: 1,2-Dichlorobenzene-d4	2635	0	3330	0	79.1	37	103	0	0		
Surr: 2-Fluorobiphenyl	2974	0	3330	0	89.3	37	113	0	0		
Surr: 4-Terphenyl-d14	3343	0	3330	0	100	46	123	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **LCS-20428** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS6_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/2/2004** SeqNo: **645098**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Nitrobenzene-d5	2813	0	3330	0	84.5	39	108	0	0		

Sample ID: **LCS-20428** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/3/2004** SeqNo: **645434**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2404	330	3330	0	72.2	64	95	0	0		
Pyrene	2619	330	3330	0	78.6	63	100	0	0		
Surr: 1,2-Dichlorobenzene-d4	2568	0	3330	0	77.1	37	103	0	0		
Surr: 2-Fluorobiphenyl	2406	0	3330	0	72.3	37	113	0	0		
Surr: 4-Terphenyl-d14	3273	0	3330	0	98.3	46	123	0	0		
Surr: Nitrobenzene-d5	2953	0	3330	0	88.7	39	108	0	0		

Sample ID: **LCS-20428** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/6/2004** SeqNo: **645953**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2346	330	3330	0	70.5	64	95	0	0		
Pyrene	2693	330	3330	0	80.9	63	100	0	0		
Surr: 1,2-Dichlorobenzene-d4	2541	0	3330	0	76.3	37	103	0	0		
Surr: 2-Fluorobiphenyl	2414	0	3330	0	72.5	37	113	0	0		
Surr: 4-Terphenyl-d14	3217	0	3330	0	96.6	46	123	0	0		
Surr: Nitrobenzene-d5	2991	0	3330	0	89.8	39	108	0	0		

Sample ID: **mb-20428MS** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/3/2004** SeqNo: **645137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2443	330	3330	0	73.4	64	95	0	0		
Pyrene	2719	330	3330	0	81.7	63	100	0	0		

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **mb-20428MS** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/3/2004** SeqNo: **645137**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichlorobenzene-d4	2519	0	3330	0	75.7	37	103	0	0		
Surr: 2-Fluorobiphenyl	2400	0	3330	0	72.1	37	113	0	0		
Surr: 4-Terphenyl-d14	3203	0	3330	0	96.2	46	123	0	0		
Surr: Nitrobenzene-d5	2992	0	3330	0	89.9	39	108	0	0		

Sample ID: **mb-20428MSD** SampType: **MSD** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **12/2/2004** Run ID: **MS7_041202A**
Client ID: **ZZZZZ** Batch ID: **20428** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **12/3/2004** SeqNo: **645138**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2085	330	3330	0	62.6	64	95	2443	15.8	30	S
Pyrene	2324	330	3330	0	69.8	63	100	2719	15.7	30	
Surr: 1,2-Dichlorobenzene-d4	1645	0	3330	0	49.4	37	103	0	0	0	
Surr: 2-Fluorobiphenyl	1728	0	3330	0	51.9	37	113	0	0	0	
Surr: 4-Terphenyl-d14	2410	0	3330	0	72.4	46	123	0	0	0	
Surr: Nitrobenzene-d5	1960	0	3330	0	58.8	39	108	0	0	0	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: HC_S_SVOA

Sample ID: **MB-20414** SampType: **MBLK** TestCode: **HC_S_SVOA** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B (LUFT)** Analysis Date: **12/5/2004** SeqNo: **646173**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C12	ND	10									
T/R Hydrocarbons: C13-C15	ND	10									
T/R Hydrocarbons: C16-C22	ND	10									
T/R Hydrocarbons: C23-C32	ND	10									
T/R Hydrocarbons: >C32	ND	10									
Surr: p-Terphenyl	85.52	10	80	0	107	60	129	0	0		

Sample ID: **MB-20414** SampType: **MBLK** TestCode: **HC_S_SVOA** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B (LUFT)** Analysis Date: **12/7/2004** SeqNo: **646826**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C12	ND	10									
T/R Hydrocarbons: C13-C15	ND	10									
T/R Hydrocarbons: C16-C22	ND	10									
T/R Hydrocarbons: C23-C32	ND	10									
T/R Hydrocarbons: >C32	ND	10									
Surr: p-Terphenyl	99.33	10	80	0	124	60	129	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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Advanced Technology Laboratories

Date: *08-Dec-04*

CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

BatchID: 20414

Sample ID: **LCS-20414** SampType: **LCS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **12/1/2004** SeqNo: **643683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1060	10	1000	0	106	73	125	0	0		
Surr: p-Terphenyl	91.61	0	80	0	115	60	129	0	0		

Sample ID: **LCS-20414** SampType: **LCS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **12/5/2004** SeqNo: **646172**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	975.3	10	1000	0	97.5	73	125	0	0		
Surr: p-Terphenyl	84.32	0	80	0	105	60	129	0	0		

Sample ID: **LCS-20414** SampType: **LCS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **12/7/2004** SeqNo: **646825**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1014	10	1000	0	101	73	125	0	0		
Surr: p-Terphenyl	102.6	0	80	0	128	60	129	0	0		

Sample ID: **072627-006AMS** SampType: **MS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **12/1/2004** SeqNo: **643684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	3783	20	1000	2620	116	70	128	0	0		
Surr: p-Terphenyl	62.5	0	80	0	78.1	60	129	0	0		

Sample ID: **072627-006AMSD** SampType: **MSD** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **12/1/2004** Run ID: **GC7_041130B**
Client ID: **ZZZZZ** Batch ID: **20414** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **12/1/2004** SeqNo: **643685**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike/Surrogate outside limits due to matrix interference; DO - Surrogate diluted out; J - Analyte detected below quantitation limits; B - Analyte detected in the associated Method Blank; H - Sample exceeded holding time; R - RPD outside accepted recovery limits; **Calculations are based on raw values**

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CLIENT: Ninyo & Moore
Work Order: 072617
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

BatchID: 20414

Sample ID: 072627-006AMSD	SampType: MSD	TestCode: 8015_S_DM	Units: mg/Kg	Prep Date: 12/1/2004	Run ID: GC7_041130B
Client ID: ZZZZZ	Batch ID: 20414	TestNo: EPA 8015B(M (LUFT)		Analysis Date: 12/1/2004	SeqNo: 643685

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	3439	20	1000	2620	81.9	70	128	3783	9.54	30	
Surr: p-Terphenyl	55.02	0	80	0	68.8	60	129	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike/Surrogate outside limits due to matrix interference
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO - Surrogate diluted out
H - Sample exceeded holding time

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: PM Date: 11/30/04

Method of Transport: Client ☑ ATL ☐ CA OverN ☐ FEDEX ☐ Other:

Sample Condition Upon Receipt:
1. CHILLED Y☑ N☐
2. HEADSPACE (VOA) Y☐ N☐
3. CONTAINER INTACT Y☑ N☐
4. SEALED Y☐ N☑
5. # OF SPLS MATCH COC Y☐ N☐
6. PRESERVED Y☑ N☑

Client:
Attn: Ninyo & Moore
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Bloomfield II
Project #: 205372005
Sampler: (Printed Name) Paul Roberts (Signature) Paul Roberts

Relinquished by: (Signature and Printed Name) Paul Roberts Date: 11-30-04 Time: 3:35 Received by: (Signature and Printed Name) [illegible] Date: 11/30/04 Time: 1545
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Paul Roberts (Print Name) 11-30-04 (Date)
Paul Roberts (Signature)

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / BTEX	8015B (DRO)	TPH-g 8015	TPH-d Ch-Lge 8015	VOCs 8260	PNA 8270	Title 22 metals	HOLD	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	0712617 001	T1-1-2	11/30									X	X	X	X	X		X				E	8	J V		
	- 002	T1-1-5															X									
	- 003	T1-1-10															X									
	- 004	T1-2-2										X	X	X	X	X										
	- 005	T1-2-5															X									
	- 006	T1-2-10															X									
	- 007	T1-3-2										X	X	X	X	X										
	- 008	T1-3-5															X									
	- 009	T1-3-10															X									
	- 010	T2-1-2										X	X	X	X	X										

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By: Date: 11/30/04

Method of Transport: Client ☑ ATL ☐ CA OverN ☐ FEDEX ☐ Other:

Sample Condition Upon Receipt:
1. CHILLED Y ☑ N ☐ 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☑ N ☐
3. CONTAINER INTACT Y ☑ N ☐ 6. PRESERVED Y ☐ N ☐

Client:
Attn: Hilary Moore
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Bloomfield II Project #: 205372005 Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name) Paul Robles Date: 11-30-04 Time: 3:35 Received by: (Signature and Printed Name) Date: 11/30/04 Time: 1575
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:
Relinquished by: (Signature and Printed Name) Date: Time: Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / BTEX	8015B (DRO)	TPH 8015	TPH Chromatogram	VOCs 8260	PNA 8270	Total Metals	Hexavalent Cr	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	0726017-011	T2-1-5	11/30														X	X					E	B	J	V		
	-012	T2-1-10															X											
	-013	T2-2-2									X	X	X	X	X													
	-014	T2-2-5															X											
	-015	T2-2-10															X											
	-016	T2-3-2									X	X	X	X	X													
	-017	T2-3-5															X											
	-018	T2-3-10															X											
	-019	T3-1-2									X	X	X	X	X													
	-020	T3-1-5															X											

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: [illegible] Date: 11/30/01

Method of Transport: Client ☑ ATL ☐ CA OverN ☐ FEDEX ☐ Other: _____

Sample Condition Upon Receipt

1. CHILLED	Y ☑ N ☐	4. SEALED	Y ☐ N ☐
2. HEADSPACE (VOA)	Y ☐ N ☐	5. # OF SPLS MATCH COC	Y ☑ N ☐
3. CONTAINER INTACT	Y ☑ N ☐	6. PRESERVED	Y ☑ N ☑

Client:
Attn: Nancy Moore

Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Bloomfield
Project #: 205372005
Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
[illegible]	11-30-01	3:35	[illegible]	11/30/01	3:45

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

PRESERVATION

Q A / Q C
RTNE ☐
CT ☐
SWRCB ☐
Logcode _____
OTHER _____

ITEM	LAB USE ONLY: Batch #: Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / BTEX	8015B (DRO)	TPHg	TPH cc (Co-Gas BOD)	VOCs 8260	BNA 8270	Tl+He 22 metals	VOC-D	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	REMARKS
	072617-001	T3-1-10															X	X				E	8	5	V
	-002	T3-2-2										X	X	X	X	X		↓				↓	↓	↓	↓
	-003	T3-2-5															X								
	-004	T3-2-10															X	↓				↓	↓	↓	↓

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives:
H=Hcl N=HNO_3 S=H_2SO_4 C=4°C
Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

SIERRA
ANALYTICAL

14 December 2004

Paul Roberts
Ninyo & Moore - Irvine
475 Goddard Suite 200
Irvine, CA 92618

RE:Bloomfield 2

Work Order No.: 0412057

Attached are the results of the analyses for samples received by the laboratory on 12/02/04 09:10.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS), Environmental Laboratory Accredidation Program (ELAP) No. 2320.

26052 Merit Circle Suite 105, Laguna Hills, California 92653
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E-Mail: sierralabs@earthlink.net

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T4-1-2	0412057-01	Soil	12/01/04 00:00	12/02/04 09:10
T4-2-2	0412057-04	Soil	12/01/04 00:00	12/02/04 09:10
P1-1-2.5	0412057-07	Soil	12/01/04 00:00	12/02/04 09:10
P1-2-2.5	0412057-08	Soil	12/01/04 00:00	12/02/04 09:10
P1-3-2	0412057-09	Soil	12/01/04 00:00	12/02/04 09:10
P1-4-1.5	0412057-10	Soil	12/01/04 00:00	12/02/04 09:10
P1-5-1.5	0412057-11	Soil	12/01/04 00:00	12/02/04 09:10
P1-6-1.5	0412057-12	Soil	12/01/04 00:00	12/02/04 09:10

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 4 °C, and accompanied by chain of custody documentation.
PRESERVATION: Samples requiring preservation were verified prior to sample preparation and analysis.
HOLDING TIMES: All holding times were met, unless otherwise noted in the report with data qualifiers.
QA/QC CRITERIA: All quality objective criteria were met, except as noted in the report with data qualifiers.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

26052 MERIT CIRCLE SUITE 105, LAGUNA HILLS, CALIFORNIA 92653
TELEPHONE: (949) 348-9389 FAX: (949) 348-9115
E-MAIL: SIERRALABS @ SIERRALABS.NET

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-1-2 (0412057-01) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	**6.4**	1.7	"	"	"	"	"	"	
Barium	**220**	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	ND	0.51	"	"	"	"	12/09/04	"	
Cobalt	**14**	2.2	"	"	"	"	12/13/04	"	
Chromium	**32**	0.98	"	"	"	"	12/09/04	"	
Copper	**26**	2.2	"	"	"	"	12/13/04	"	
Mercury	ND	0.16	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	**22**	0.79	"	"	"	"	"	"	
Lead	**14**	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	**55**	0.73	"	"	"	"	"	"	
Zinc	**55**	1.3	"	"	"	"	12/13/04	"	
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	**8.2**	1.7	"	"	"	"	"	"	
Barium	**210**	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	ND	0.51	"	"	"	"	12/09/04	"	
Cobalt	**15**	2.2	"	"	"	"	12/13/04	"	
Chromium	**36**	0.98	"	"	"	"	12/09/04	"	
Copper	**29**	2.2	"	"	"	"	12/13/04	"	
Mercury	ND	0.16	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	**25**	0.79	"	"	"	"	"	"	
Lead	**6.0**	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	**61**	0.73	"	"	"	"	"	"	
Zinc	**58**	1.3	"	"	"	"	12/13/04	"	

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26052 Merit Circle Suite 105, Laguna Hills, California 92653
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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	13	1.7	"	"	"	"	"	"	
Barium	220	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	0.75	0.51	"	"	"	"	12/09/04	"	
Cobalt	13	2.2	"	"	"	"	12/13/04	"	
Chromium	36	0.98	"	"	"	"	12/09/04	"	
Copper	1500	2.2	"	"	"	"	12/13/04	"	
Mercury	0.22	0.18	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	33	0.79	"	"	"	"	"	"	
Lead	200	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	57	0.73	"	"	"	"	"	"	
Zinc	440	1.3	"	"	"	"	12/13/04	"	
P1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	12	1.7	"	"	"	"	"	"	
Barium	210	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	0.79	0.51	"	"	"	"	12/09/04	"	
Cobalt	14	2.2	"	"	"	"	12/13/04	"	
Chromium	34	0.98	"	"	"	"	12/09/04	"	
Copper	47	2.2	"	"	"	"	12/13/04	"	
Mercury	ND	0.18	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	25	0.79	"	"	"	"	"	"	
Lead	85	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	55	0.73	"	"	"	"	"	"	
Zinc	380	1.3	"	"	"	"	12/13/04	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	**15**	1.7	"	"	"	"	"	"	
Barium	**210**	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	ND	0.51	"	"	"	"	12/09/04	"	
Cobalt	**14**	2.2	"	"	"	"	12/13/04	"	
Chromium	**34**	0.98	"	"	"	"	12/09/04	"	
Copper	**33**	2.2	"	"	"	"	12/13/04	"	
Mercury	**0.27**	0.18	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	**26**	0.79	"	"	"	"	"	"	
Lead	**61**	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	**60**	0.73	"	"	"	"	"	"	
Zinc	**88**	1.3	"	"	"	"	12/13/04	"	
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	**13**	1.7	"	"	"	"	"	"	
Barium	**220**	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	ND	0.51	"	"	"	"	12/09/04	"	
Cobalt	**13**	2.2	"	"	"	"	12/13/04	"	
Chromium	**32**	0.98	"	"	"	"	12/09/04	"	
Copper	**31**	2.2	"	"	"	"	12/13/04	"	
Mercury	ND	0.18	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	**24**	0.79	"	"	"	"	"	"	
Lead	**74**	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	**54**	0.73	"	"	"	"	"	"	
Zinc	**130**	1.3	"	"	"	"	12/13/04	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	**25**	1.7	"	"	"	"	"	"	
Barium	**260**	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	**0.68**	0.51	"	"	"	"	12/09/04	"	
Cobalt	**14**	2.2	"	"	"	"	12/13/04	"	
Chromium	**39**	0.98	"	"	"	"	12/09/04	"	
Copper	**42**	2.2	"	"	"	"	12/13/04	"	
Mercury	ND	0.18	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	**28**	0.79	"	"	"	"	"	"	
Lead	**230**	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	**57**	0.73	"	"	"	"	"	"	
Zinc	**310**	1.3	"	"	"	"	12/13/04	"	
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Silver	ND	0.80	mg/kg	1	B4L0906	12/09/04	12/09/04	EPA 6010B	
Arsenic	**14**	1.7	"	"	"	"	"	"	
Barium	**230**	3.3	"	"	"	"	"	"	
Beryllium	ND	0.68	"	"	"	"	12/13/04	"	
Cadmium	ND	0.51	"	"	"	"	12/09/04	"	
Cobalt	**10**	2.2	"	"	"	"	12/13/04	"	
Chromium	**27**	0.98	"	"	"	"	12/09/04	"	
Copper	**32**	2.2	"	"	"	"	12/13/04	"	
Mercury	ND	0.18	"	"	B4L0907	12/09/04	12/10/04	EPA 7471A	
Molybdenum	ND	1.7	"	"	B4L0906	12/09/04	12/09/04	EPA 6010B	
Nickel	**24**	0.79	"	"	"	"	"	"	
Lead	**120**	1.3	"	"	"	"	"	"	
Antimony	ND	1.6	"	"	"	"	12/13/04	"	
Selenium	ND	1.9	"	"	"	"	12/09/04	"	
Thallium	ND	1.5	"	"	"	"	"	"	
Vanadium	**42**	0.73	"	"	"	"	"	"	
Zinc	**190**	1.3	"	"	"	"	12/13/04	"	

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Telephone: (949) 348-9389 Fax: (949) 348-9115
E-Mail: sierralabs @ sierralabs.net

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Total Volatile Petroleum Hydrocarbons (TVPH) by GC/FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-1-2 (0412057-01) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.050	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*118 %*	*35-130*		"	"	"	"	
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.045	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*119 %*	*35-130*		"	"	"	"	
P1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.088	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*115 %*	*35-130*		"	"	"	"	
P1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.076	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*119 %*	*35-130*		"	"	"	"	
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.060	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*119 %*	*35-130*		"	"	"	"	
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.068	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*116 %*	*35-130*		"	"	"	"	
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.056	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*118 %*	*35-130*		"	"	"	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Total Volatile Petroleum Hydrocarbons (TVPH) by GC/FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Gasoline Range Hydrocarbons (C4-C12)	ND	0.066	mg/kg	1	B4L0505	12/05/04	12/05/04	EPA 8015B	
Surrogate: a,a,a-Trifluorotoluene		*116 %*		*35-130*	"	"	"	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-1-2 (0412057-01) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	**1.6**	1.0	"	"	"	"	"	"	
C20 <= HC < C24	**18**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**31**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**24**	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	**74**	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*131 %*	*50-150*		"	"	"	"	
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	ND	1.0	"	"	"	"	"	"	
C20 <= HC < C24	**4.0**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**6.6**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**3.2**	1.0	"	"	"	"	"	"	
HC >= C32	ND	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	**14**	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*107 %*	*50-150*		"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	5.0	mg/kg	5	B4L0908	12/06/04	12/09/04	EPA 8015B	
8 <= HC < C9	ND	5.0	"	"	"	"	"	"	
9 <= HC < C10	ND	5.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	5.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	5.0	"	"	"	"	"	"	
12 <= HC < C14	ND	5.0	"	"	"	"	"	"	
14 <= HC < C16	ND	5.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	5.0	"	"	"	"	"	"	
18 <= HC < C20	ND	5.0	"	"	"	"	"	"	
20 <= HC < C24	**220**	5.0	"	"	"	"	"	"	
C24 <= HC < C28	**420**	5.0	"	"	"	"	"	"	
C28 <= HC < C32	**480**	5.0	"	"	"	"	"	"	
C >= C32	ND	5.0	"	"	"	"	"	"	
otal Petroleum Hydrocarbons (C7-C36)	**1100**	25	"	"	"	"	"	"	
urrogate: o-Terphenyl		*%*	*50-150*		"	"	"	"	*S-03*
1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
18 <= HC < C20	**4.5**	1.0	"	"	"	"	"	"	
20 <= HC < C24	**54**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**140**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**160**	1.0	"	"	"	"	"	"	
C >= C32	**1.6**	1.0	"	"	"	"	"	"	
otal Petroleum Hydrocarbons (C7-C36)	**360**	5.0	"	"	"	"	"	"	
urrogate: o-Terphenyl		*133 %*	*50-150*		"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	**7.2**	1.0	"	"	"	"	"	"	
C20 <= HC < C24	**54**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**110**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**110**	1.0	"	"	"	"	"	"	
HC >= C32	**8.0**	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	**290**	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*92.0 %*	*50-150*		"	"	"	"	
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	**8.5**	1.0	"	"	"	"	"	"	
C20 <= HC < C24	**50**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**170**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**140**	1.0	"	"	"	"	"	"	
HC >= C32	**10**	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	**370**	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*88.0 %*	*50-150*		"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	**14**	1.0	"	"	"	"	"	"	
C20 <= HC < C24	**35**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**160**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**140**	1.0	"	"	"	"	"	"	
HC >= C32	**2.9**	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	**360**	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*90.7 %*	*50-150*		"	"	"	"	
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
HC < C8	ND	1.0	mg/kg	1	B4L0908	12/06/04	12/09/04	EPA 8015B	
C8 <= HC < C9	ND	1.0	"	"	"	"	"	"	
C9 <= HC < C10	ND	1.0	"	"	"	"	"	"	
C10 <= HC < C11	ND	1.0	"	"	"	"	"	"	
C11 <= HC < C12	ND	1.0	"	"	"	"	"	"	
C12 <= HC < C14	ND	1.0	"	"	"	"	"	"	
C14 <= HC < C16	ND	1.0	"	"	"	"	"	"	
C16 <= HC < C18	ND	1.0	"	"	"	"	"	"	
C18 <= HC < C20	**5.7**	1.0	"	"	"	"	"	"	
C20 <= HC < C24	**91**	1.0	"	"	"	"	"	"	
C24 <= HC < C28	**160**	1.0	"	"	"	"	"	"	
C28 <= HC < C32	**190**	1.0	"	"	"	"	"	"	
HC >= C32	**7.6**	1.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C7-C36)	**450**	5.0	"	"	"	"	"	"	
Surrogate: o-Terphenyl		*101 %*	*50-150*		"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-1-2 (0412057-01) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-1-2 (0412057-01) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Naphthalene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*112 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*100 %*	*81-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*101 %*	*74-121*		"	"	"	"	
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
1,2-Dibromo-3-chloropropane	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
m,p-Xylene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
-Xylene	ND	5.0	"	"	"	"	"	"	
urrogate: Dibromofluoromethane		*114 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*81-117*		"	"	"	"	
urrogate: 4-Bromofluorobenzene		*101 %*	*74-121*		"	"	"	"	
1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
romobenzene	ND	5.0	"	"	"	"	"	"	
romochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
romomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
rt-Butylbenzene	ND	5.0	"	"	"	"	"	"	
arbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
hloroform	ND	5.0	"	"	"	"	"	"	
hloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Chlorotoluene	ND	5.0	"	"	"	"	"	"	
ibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
ibromomethane	ND	5.0	"	"	"	"	"	"	
2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
ichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
s-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
s-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
trans-1,3-Dichloropropene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*81-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*102 %*	*74-121*		"	"	"	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Naphthalene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*116 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*81-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*74-121*		"	"	"	"	
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
1,2-Dibromo-3-chloropropane	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
m,p-Xylene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*120 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*81-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*106 %*	*74-121*		"	"	"	"	
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
trans-1,3-Dichloropropene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*117 %*		*80-120*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*81-117*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*109 %*		*74-121*	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Naphthalene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
-Propylbenzene	ND	5.0	"	"	"	"	"	"	
tyrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
etrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
richlorofluoromethane	ND	5.0	"	"	"	"	"	"	
,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
inyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
urrogate: Dibromofluoromethane		*117 %*	*80-120*		"	"	"	"	
urrogate: Toluene-d8		*102 %*	*81-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*74-121*		"	"	"	"	
1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Benzene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
romochloromethane	ND	5.0	"	"	"	"	"	"	
romodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
romomethane	ND	5.0	"	"	"	"	"	"	
-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
arbon tetrachloride	ND	5.0	"	"	"	"	"	"	
hlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
hloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
ibromochloromethane	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
1,2-Dibromo-3-chloropropane	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
m,p-Xylene	ND	5.0	µg/kg	1	B4L0706	12/03/04	12/04/04	EPA 8260B	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*115 %*	*80-120*		"	"	"	"	
Surrogate: Toluene-d8		*101 %*	*81-117*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*	*74-121*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-1-2 (0412057-01) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5		*73.0 %*	*23-120*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*90.1 %*	*30-115*		"	"	"	"	
Surrogate: Terphenyl-d14		*98.2 %*	*18-137*		"	"	"	"	
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	0.33	mg/kg	1	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
T4-2-2 (0412057-04) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Surrogate: Nitrobenzene-d5		*102 %*	*23-120*		*B4L0716*	*12/07/04*	*12/07/04*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl		*106 %*	*30-115*		*"*	*"*	*"*	*"*	
Surrogate: Terphenyl-d14		*133 %*	*18-137*		*"*	*"*	*"*	*"*	
P1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5		*101 %*	*23-120*		*"*	*"*	*"*	*"*	
Surrogate: 2-Fluorobiphenyl		*106 %*	*30-115*		*"*	*"*	*"*	*"*	
Surrogate: Terphenyl-d14		*125 %*	*18-137*		*"*	*"*	*"*	*"*	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5		*85.0 %*	*23-120*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*71.2 %*	*30-115*		"	"	"	"	
Surrogate: Terphenyl-d14		*90.1 %*	*18-137*		"	"	"	"	
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Surrogate: Nitrobenzene-d5		*93.1 %*	*23-120*		*B4L0716*	*12/07/04*	*12/07/04*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl		*101 %*	*30-115*		*"*	*"*	*"*	*"*	
Surrogate: Terphenyl-d14		*113 %*	*18-137*		*"*	*"*	*"*	*"*	
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5		*71.2 %*	*23-120*		*"*	*"*	*"*	*"*	
Surrogate: 2-Fluorobiphenyl		*111 %*	*30-115*		*"*	*"*	*"*	*"*	
Surrogate: Terphenyl-d14		*117 %*	*18-137*		*"*	*"*	*"*	*"*	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/07/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	
Surrogate: Nitrobenzene-d5		*74.2 %*	*23-120*		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		*83.2 %*	*30-115*		"	"	"	"	
Surrogate: Terphenyl-d14		*89.2 %*	*18-137*		"	"	"	"	
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Acenaphthene	ND	3.3	mg/kg	10	B4L0716	12/07/04	12/08/04	EPA 8270C	
Acenaphthylene	ND	3.3	"	"	"	"	"	"	
Anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (a) anthracene	ND	3.3	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	3.3	"	"	"	"	"	"	
Benzo (a) pyrene	ND	3.3	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	3.3	"	"	"	"	"	"	
Chrysene	ND	3.3	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	3.3	"	"	"	"	"	"	
Dibenzofuran	ND	3.3	"	"	"	"	"	"	
Fluoranthene	ND	3.3	"	"	"	"	"	"	
Fluorene	ND	3.3	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	3.3	"	"	"	"	"	"	
2-Methylnaphthalene	ND	3.3	"	"	"	"	"	"	
Naphthalene	ND	3.3	"	"	"	"	"	"	
Phenanthrene	ND	3.3	"	"	"	"	"	"	
Pyrene	ND	3.3	"	"	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Surrogate: Nitrobenzene-d5		*71.2 %*		*23-120*	*B4L0716*	*12/07/04*	*12/08/04*	*EPA 8270C*	
Surrogate: 2-Fluorobiphenyl		*93.1 %*		*30-115*	"	"	"	"	
Surrogate: Terphenyl-d14		*103 %*		*18-137*	"	"	"	"	

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0906 - EPA 3050B										
Blank (B4L0906-BLK1)				Prepared: 12/09/04 Analyzed: 12/13/04						
Antimony	ND	1.6	mg/kg							
Arsenic	ND	1.7	"							
Barium	ND	3.3	"							
Beryllium	ND	0.68	"							
Cadmium	ND	0.51	"							
Chromium	ND	0.98	"							
Cobalt	ND	2.2	"							
Copper	ND	2.2	"							
Lead	ND	1.3	"							
Molybdenum	ND	1.7	"							
Nickel	ND	0.79	"							
Selenium	ND	1.9	"							
Silver	ND	0.80	"							
Thallium	ND	1.5	"							
Vanadium	ND	0.73	"							
Zinc	ND	1.3	"							
LCS (B4L0906-BS1)				Prepared: 12/09/04 Analyzed: 12/13/04						
Antimony	94.2	1.6	mg/kg	100		94.2	75-125			
Arsenic	101	1.7	"	100		101	78-122			
Barium	102	3.3	"	100		102	80-120			
Beryllium	94.9	0.68	"	100		94.9	80-120			
Cadmium	98.5	0.51	"	100		98.5	80-120			
Chromium	102	0.98	"	100		102	80-120			
Cobalt	97.7	2.2	"	100		97.7	80-120			
Copper	101	2.2	"	100		101	78-122			
Lead	102	1.3	"	100		102	80-120			
Molybdenum	103	1.7	"	100		103	80-120			
Nickel	99.5	0.79	"	100		99.5	80-120			
Selenium	99.3	1.9	"	100		99.3	76-124			
Silver	99.0	0.80	"	100		99.0	60-140			
Thallium	95.0	1.5	"	100		95.0	80-120			
Vanadium	100	0.73	"	100		100	80-120			
Zinc	90.2	1.3	"	100		90.2	78-122			

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0906 - EPA 3050B										
LCS Dup (B4L0906-BSD1)				Prepared: 12/09/04 Analyzed: 12/13/04						
Antimony	97.0	1.6	mg/kg	100		97.0	75-125	2.93	20	
Arsenic	100	1.7	"	100		100	78-122	0.995	20	
Barium	103	3.3	"	100		103	80-120	0.976	20	
Beryllium	98.1	0.68	"	100		98.1	80-120	3.32	20	
Cadmium	99.1	0.51	"	100		99.1	80-120	0.607	20	
Chromium	103	0.98	"	100		103	80-120	0.976	20	
Cobalt	101	2.2	"	100		101	80-120	3.32	20	
Copper	106	2.2	"	100		106	78-122	4.83	20	
Lead	100	1.3	"	100		100	80-120	1.98	20	
Molybdenum	101	1.7	"	100		101	80-120	1.96	20	
Nickel	97.7	0.79	"	100		97.7	80-120	1.83	20	
Selenium	97.3	1.9	"	100		97.3	76-124	2.03	20	
Silver	99.7	0.80	"	100		99.7	60-140	0.705	40	
Thallium	90.9	1.5	"	100		90.9	80-120	4.41	20	
Vanadium	101	0.73	"	100		101	80-120	0.995	20	
Zinc	93.6	1.3	"	100		93.6	78-122	3.70	20	
Matrix Spike (B4L0906-MS1)		**Source: 0412057-01**		Prepared: 12/09/04 Analyzed: 12/13/04						
Antimony	17.5	1.6	mg/kg	91.5	ND	19.1	60-140			QM-07
Arsenic	107	1.7	"	91.5	6.4	110	70-130			
Barium	318	3.3	"	91.5	220	107	70-130			
Beryllium	87.6	0.68	"	91.5	ND	95.7	70-130			
Cadmium	97.0	0.51	"	91.5	ND	106	70-130			
Chromium	132	0.98	"	91.5	32	109	70-130			
Cobalt	96.4	2.2	"	91.5	14	90.1	70-130			
Copper	117	2.2	"	91.5	26	99.5	70-130			
Lead	110	1.3	"	91.5	14	105	70-130			
Molybdenum	95.4	1.7	"	91.5	1.1	103	70-130			
Nickel	116	0.79	"	91.5	22	103	70-130			
Selenium	97.4	1.9	"	91.5	ND	106	70-130			
Silver	86.5	0.80	"	91.5	ND	94.5	60-140			
Thallium	86.7	1.5	"	91.5	ND	94.8	70-130			
Vanadium	158	0.73	"	91.5	55	113	70-130			
Zinc	139	1.3	"	91.5	55	91.8	70-130			

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Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0906 - EPA 3050B										
Matrix Spike Dup (B4L0906-MSD1)		**Source: 0412057-01**		Prepared: 12/09/04		Analyzed: 12/13/04				
Antimony	21.4	1.6	mg/kg	94.2	ND	22.7	60-140	20.1	20	QM-07
Arsenic	110	1.7	"	94.2	6.4	110	70-130	2.76	20	
Barium	314	3.3	"	94.2	220	99.8	70-130	1.27	20	
Beryllium	89.1	0.68	"	94.2	ND	94.6	70-130	1.70	20	
Cadmium	101	0.51	"	94.2	ND	107	70-130	4.04	20	
Chromium	137	0.98	"	94.2	32	111	70-130	3.72	20	
Cobalt	98.8	2.2	"	94.2	14	90.0	70-130	2.46	20	
Copper	120	2.2	"	94.2	26	99.8	70-130	2.53	20	
Lead	114	1.3	"	94.2	14	106	70-130	3.57	20	
Molybdenum	98.7	1.7	"	94.2	1.1	104	70-130	3.40	20	
Nickel	120	0.79	"	94.2	22	104	70-130	3.39	20	
Selenium	102	1.9	"	94.2	ND	108	70-130	4.61	20	
Silver	91.6	0.80	"	94.2	ND	97.2	60-140	5.73	40	
Thallium	89.0	1.5	"	94.2	ND	94.5	70-130	2.62	20	
Vanadium	162	0.73	"	94.2	55	114	70-130	2.50	20	
Zinc	141	1.3	"	94.2	55	91.3	70-130	1.43	20	
Batch B4L0907 - EPA 7471A										
Blank (B4L0907-BLK1)				Prepared: 12/09/04		Analyzed: 12/10/04				
Mercury	ND	0.18	mg/kg							
LCS (B4L0907-BS1)				Prepared: 12/09/04		Analyzed: 12/10/04				
Mercury	0.18	0.18	mg/kg	0.167		108	70-130			
Matrix Spike (B4L0907-MS1)		**Source: 0412057-01**		Prepared: 12/09/04		Analyzed: 12/10/04				
Mercury	0.21	0.18	mg/kg	0.155	0.04	110	70-130			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0907 - EPA 7471A										
Matrix Spike Dup (B4L0907-MSD1)		**Source: 0412057-01**		Prepared: 12/09/04	Analyzed: 12/10/04					
Mercury	0.22	0.18	mg/kg	0.153	0.04	118	70-130	4.65	25	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Total Volatile Petroleum Hydrocarbons (TVPH) by GC/FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0505 - EPA 5035 P & T										
Blank (B4L0505-BLK1)				Prepared & Analyzed: 12/05/04						
Gasoline Range Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
Surrogate: a,a,a-Trifluorotoluene	*0.0238*		*"*	*0.0200*		*119*	*35-130*			
LCS (B4L0505-BS1)				Prepared & Analyzed: 12/05/04						
Gasoline Range Hydrocarbons (C4-C12)	0.611	0.050	mg/kg	0.600		102	80-120			
Matrix Spike (B4L0505-MS1)		**Source: 0412057-12**		Prepared & Analyzed: 12/05/04						
Gasoline Range Hydrocarbons (C4-C12)	0.585	0.050	mg/kg	0.600	ND	97.5	50-150			
Matrix Spike Dup (B4L0505-MSD1)		**Source: 0412057-12**		Prepared & Analyzed: 12/05/04						
Gasoline Range Hydrocarbons (C4-C12)	0.583	0.050	mg/kg	0.600	ND	97.2	50-150	0.342	30	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0908 - EPA 3550B Solid Ext										
Blank (B4L0908-BLK1)				Prepared: 12/06/04		Analyzed: 12/09/04				
HC < C8	ND	1.0	mg/kg							
C8 <= HC < C9	ND	1.0	"							
C9 <= HC < C10	ND	1.0	"							
C10 <= HC < C11	ND	1.0	"							
C11 <= HC < C12	ND	1.0	"							
C12 <= HC < C14	ND	1.0	"							
C14 <= HC < C16	ND	1.0	"							
C16 <= HC < C18	ND	1.0	"							
C18 <= HC < C20	ND	1.0	"							
C20 <= HC < C24	ND	1.0	"							
C24 <= HC < C28	ND	1.0	"							
C28 <= HC < C32	ND	1.0	"							
HC >= C32	ND	1.0	"							
Total Petroleum Hydrocarbons (C7-C36)	ND	5.0	"							
Surrogate: o-Terphenyl	*7.50*		*"*	*7.50*		*100*	*50-150*			
LCS (B4L0908-BS1)				Prepared: 12/06/04		Analyzed: 12/09/04				
Diesel Range Organics (C10-C24)	97.2	5.0	mg/kg	100		97.2	80-120			
LCS (B4L0908-BS2)				Prepared: 12/06/04		Analyzed: 12/09/04				
Diesel Range Organics (C10-C24)	117	5.0	mg/kg	100		117	80-120			
LCS Dup (B4L0908-BSD1)				Prepared: 12/06/04		Analyzed: 12/09/04				
Diesel Range Organics (C10-C24)	119	5.0	mg/kg	100		119	80-120	20.2	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0706 - EPA 5035 P & T										
Blank (B4L0706-BLK1)				Prepared & Analyzed: 12/03/04						
Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0706 - EPA 5035 P & T										
Blank (B4L0706-BLK1)				Prepared & Analyzed: 12/03/04						
Isopropylbenzene	ND	5.0	µg/kg							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							
Surrogate: Dibromofluoromethane	*50.2*		"	*50.0*		*100*	*80-120*			
Surrogate: Toluene-d8	*49.4*		"	*50.0*		*98.8*	*81-117*			
Surrogate: 4-Bromofluorobenzene	*49.1*		"	*50.0*		*98.2*	*74-121*			
LCS (B4L0706-BS1)				Prepared & Analyzed: 12/03/04						
Benzene	52.4	5.0	µg/kg	50.0		105	80-120			
Chlorobenzene	54.4	5.0	"	50.0		109	80-120			
1,1-Dichloroethene	42.7	5.0	"	50.0		85.4	80-120			
Toluene	50.9	5.0	"	50.0		102	80-120			
Trichloroethene	53.1	5.0	"	50.0		106	80-120			

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0706 - EPA 5035 P & T										
Matrix Spike (B4L0706-MS1)		**Source: 0412057-12**		Prepared: 12/03/04		Analyzed: 12/04/04				
Benzene	69.0	5.0	µg/kg	50.0	ND	138	37-151			
Chlorobenzene	61.9	5.0	"	50.0	ND	124	37-160			
1,1-Dichloroethene	53.0	5.0	"	50.0	ND	106	50-150			
Toluene	61.2	5.0	"	50.0	ND	122	47-150			
Trichloroethene	63.1	5.0	"	50.0	ND	126	71-157			
Matrix Spike Dup (B4L0706-MSD1)		**Source: 0412057-12**		Prepared: 12/03/04		Analyzed: 12/04/04				
Benzene	59.4	5.0	µg/kg	50.0	ND	119	37-151	15.0	30	
Chlorobenzene	54.4	5.0	"	50.0	ND	109	37-160	12.9	30	
1,1-Dichloroethene	44.6	5.0	"	50.0	ND	89.2	50-150	17.2	30	
Toluene	53.3	5.0	"	50.0	ND	107	47-150	13.8	30	
Trichloroethene	53.3	5.0	"	50.0	ND	107	71-157	16.8	30	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0716 - EPA 3550B Solid Ext										
Blank (B4L0716-BLK1)				Prepared & Analyzed: 12/07/04						
Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
Naphthalene	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Pyrene	ND	0.33	"							
Surrogate: Nitrobenzene-d5	*0.344*		"	*0.333*		*103*	*23-120*			
Surrogate: 2-Fluorobiphenyl	*0.333*		"	*0.333*		*100*	*30-115*			
Surrogate: Terphenyl-d14	*0.340*		"	*0.333*		*102*	*18-137*			
LCS (B4L0716-BS1)				Prepared & Analyzed: 12/07/04						
Acenaphthene	0.220	0.33	mg/kg	0.333		66.1	47-145			
Pyrene	0.218	0.33	"	0.333		65.5	52-115			
LCS (B4L0716-BS2)				Prepared: 12/07/04 Analyzed: 12/08/04						
Acenaphthene	0.202	0.33	mg/kg	0.333		60.7	47-145			
Pyrene	0.227	0.33	"	0.333		68.2	52-115			

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 12/14/04 16:14

Polynuclear Aromatic Hydrocarbons (GC/MS) by EPA 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B4L0716 - EPA 3550B Solid Ext										
LCS Dup (B4L0716-BSD1)				Prepared & Analyzed: 12/07/04						
Acenaphthene	0.202	0.33	mg/kg	0.333		60.7	47-145	8.53	30	
Pyrene	0.227	0.33	"	0.333		68.2	52-115	4.04	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
S-03	Surrogate diluted out.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

CHAIN OF CUSTODY RECORD

0412057 Pg 1 of 2

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FEDEX ☐ Other: _____

Sample Condition Upon Receipt:
1. CHILLED Y☒ N☐ 4. SEALED Y☒ N☐
2. HEADSPACE (VOA) Y☐ N☒ 5. # OF SPLS MATCH COC Y☒ N☐
3. CONTAINER INTACT Y☒ N☐ 6. PRESERVED Y☒ N☐

Client:
Attn: Ninyo & Moore
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Bloomfield II
Project #: 205372005
Sampler: (Printed Name) Paul Roberts (Signature) Paul Roberts

Relinquished by: (Signature and Printed Name) Paul Roberts	Date: 12-1-04	Time: 9:10	Received by: (Signature and Printed Name) Chris Forsyth	Date: 12/2	Time: 9:10
Relinquished by: (Signature and Printed Name) Chris Forsyth	Date: 12/2	Time: 9:50	Received by: (Signature and Printed Name) Sherma	Date: 9:50	Time: 12/2/04
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Paul Roberts (Print Name) 12-1-04 (Date)
Signature: Paul Roberts

Send Report To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Bill To:
Attn: _____
Co: _____
Address _____
City _____ State _____ Zip _____

Special Instructions/Comments:
4.0 RSA-B31

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / BTEX	8015B (DRO)	TPHg 8015	TPHd Cal-Ext 8015	VOCs 8260	BNA 8270	Tri-K 22 metals	Hold	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	01	T4-1-2	12/1									X	X	X	X	X		X					E	8	J V	
	02	T4-1-5															X									
	03	T4-1-10															X									
	04	T4-2-2										X	X	X	X	X										
	05	T4-2-5															X									
	06	T4-2-10															X									
	07	P1-1-2.5										X	X	X	X	X										
	08	P1-2-2.5										X	X	X	X	X										
	09	P1-3-2										X	X	X	X	X										
	10	P1-4-1.5										X	X	X	X	X										

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: White [redacted] report [redacted] low t[redacted]r, Pi[redacted]ubm[redacted]

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____ Date: _____

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FEDEX ☐ Other: _____

Sample Condition Upon Receipt:
1. CHILLED Y☐ N☐ 4. SEALED Y☐ N☐
2. HEADSPACE (VOA) Y☐ N☐ 5. # OF SPLS MATCH COC Y☐ N☐
3. CONTAINER INTACT Y☐ N☐ 6. PRESERVED Y☐ N☐

Client:
Attn: Ninyo & Moore
Address:
City State Zip Code
TEL: ( )
FAX: ( )

Project Name: Bloomfield II
Project #: 205372005
Sampler: (Printed Name) (Signature)

Relinquished by: (Signature and Printed Name) [signature] Date: 12-2-04 Time: 9:10
Received by: (Signature and Printed Name) CHRIS FORSYTH Date: 12/2 Time: 9:10

Relinquished by: (Signature and Printed Name) [signature] CHRIS FORSYTH Date: 12/2 Time: 9:50
Received by: (Signature and Printed Name) [signature] Date: Time:

Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Print Name Date
Signature

Send Report To:
Attn:
Co:
Address
City State Zip

Bill To:
Attn:
Co:
Address
City State Zip

Special Instructions/Comments:

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample : $2.00 / sample / mo (after 45 days)
- Records : $1.00 / ATL workorder / mo (after 1 year)

Circle or Add Analysis(es) Requested

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D. / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / BTEX	8015B (DRO)	TPH 8015	TPH C6-C32 8015	VOCs 8260	PNA 8270	Title 22 metals	HOLD	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	11	P1-5-1.5	12/1								X	X	X	X	X			X					E	8	J V		
	12	P1-6-1.5	↓								X	X	X	X	X			↓					↓	↓	↓ ↓		

SPECIFY APPROPRIATE MATRIX

QA/QC: RTNE ☐ CT ☐ SWRCB ☐ Logcode ____ OTHER ____

• TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

DISTRIBUTION: **White** with report, **Yellow** to folder, **Pink** to submitter.

SIERRA
ANALYTICAL

06 January 2005

Paul Roberts
Ninyo & Moore - Irvine
475 Goddard Suite 200
Irvine, CA 92618

RE:Bloomfield 2

Work Order No.: 0412057

Attached are the results of the analyses for samples received by the laboratory on 12/02/04 09:10.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS), Environmental Laboratory Accredidation Program (ELAP) No. 2320.

26052 Merit Circle Suite 105, Laguna Hills, California 92653
Telephone: (949) 348-9389 Fax: (949) 348-9115
E-Mail: sierralabs@earthlink.net

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 01/06/05 17:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P1-1-2.5	0412057-07	Soil	12/01/04 00:00	12/02/04 09:10
P1-2-2.5	0412057-08	Soil	12/01/04 00:00	12/02/04 09:10
P1-3-2	0412057-09	Soil	12/01/04 00:00	12/02/04 09:10
P1-4-1.5	0412057-10	Soil	12/01/04 00:00	12/02/04 09:10
P1-5-1.5	0412057-11	Soil	12/01/04 00:00	12/02/04 09:10
P1-6-1.5	0412057-12	Soil	12/01/04 00:00	12/02/04 09:10

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 4 °C, and accompanied by chain of custody documentation.
PRESERVATION: Samples requiring preservation were verified prior to sample preparation and analysis.
HOLDING TIMES: All holding times were met, unless otherwise noted in the report with data qualifiers.
QA/QC CRITERIA: All quality objective criteria were met, except as noted in the report with data qualifiers.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 01/06/05 17:05

TCLP Metals by 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	ND	0.13	mg/L	2	B5A0304	01/03/05	01/03/05	EPA 6010B	
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	ND	0.13	mg/L	2	B5A0304	01/03/05	01/03/05	EPA 6010B	
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	ND	0.13	mg/L	2	B5A0304	01/03/05	01/03/05	EPA 6010B	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	**Reported:** 01/06/05 17:05

STLC Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
P1-1-2.5 (0412057-07) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Copper	**56.2**	0.42	mg/L	2	B5A0303	01/03/05	01/03/05	EPA 6010B	
Lead	**4.82**	0.32	"	"	"	"	"	"	
P1-2-2.5 (0412057-08) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	**1.93**	0.32	mg/L	2	B5A0303	01/03/05	01/03/05	EPA 6010B	
P1-3-2 (0412057-09) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	**0.72**	0.32	mg/L	2	B5A0303	01/03/05	01/03/05	EPA 6010B	
P1-4-1.5 (0412057-10) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	**1.60**	0.32	mg/L	2	B5A0303	01/03/05	01/03/05	EPA 6010B	
P1-5-1.5 (0412057-11) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	**6.66**	0.32	mg/L	2	B5A0303	01/03/05	01/03/05	EPA 6010B	
P1-6-1.5 (0412057-12) Soil Sampled: 12/01/04 00:00 Received: 12/02/04 09:10									
Lead	**3.08**	0.32	mg/L	2	B5A0303	01/03/05	01/03/05	EPA 6010B	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 01/06/05 17:05

TCLP Metals by 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5A0304 - EPA 3010A										
Blank (B5A0304-BLK1)				Prepared & Analyzed: 01/03/05						
Lead	ND	0.13	mg/L							
LCS (B5A0304-BS1)				Prepared & Analyzed: 01/03/05						
Lead	0.19	0.13	mg/L	0.200		95.0	80-120			
Duplicate (B5A0304-DUP1)		Source: 0412057-07		Prepared & Analyzed: 01/03/05						
Lead	ND	0.13	mg/L		ND				20	
Matrix Spike (B5A0304-MS1)		Source: 0412057-07		Prepared & Analyzed: 01/03/05						
Lead	0.19	0.13	mg/L	0.200	ND	95.0	80-120			
Matrix Spike Dup (B5A0304-MSD1)		Source: 0412057-07		Prepared & Analyzed: 01/03/05						
Lead	0.20	0.13	mg/L	0.200	ND	100	80-120	5.13	20	

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SIERRA ANALYTICAL

Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine CA, 92618	Project: Bloomfield 2 Project Number: 205372005 Project Manager: Paul Roberts	Reported: 01/06/05 17:05

STLC Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B5A0303 - EPA 3010A										
Blank (B5A0303-BLK1)				Prepared & Analyzed: 01/03/05						
Copper	ND	0.42	mg/L							
Lead	ND	0.32	"							
LCS (B5A0303-BS1)				Prepared & Analyzed: 01/03/05						
Copper	1.75	0.42	mg/L	2.00		87.5	70-130			
Lead	1.75	0.32	"	2.00		87.5	80-120			
Duplicate (B5A0303-DUP1)		Source: 0412057-07		Prepared & Analyzed: 01/03/05						
Copper	82.4	0.42	mg/L		56.2			37.8	20	QR-04
Lead	5.97	0.32	"		4.82			21.3	20	QR-02
Matrix Spike (B5A0303-MS1)		Source: 0412057-07		Prepared & Analyzed: 01/03/05						
Copper	53.3	0.42	mg/L	2.00	56.2	NR	75-125			QM-07
Lead	6.74	0.32	"	2.00	4.82	96.0	80-120			
Matrix Spike Dup (B5A0303-MSD1)		Source: 0412057-07		Prepared & Analyzed: 01/03/05						
Copper	58.5	0.42	mg/L	2.00	56.2	115	75-125	9.30	20	
Lead	6.70	0.32	"	2.00	4.82	94.0	80-120	0.595	20	

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Notes and Definitions

QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR-04	The RPD result exceeded the QC control limits; however, either the MS or MSD percent recovery was acceptable. Sample results for the QC batch were accepted based on percent recovery and completeness of QC data.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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26052 MERIT CIRCLE SUITE 105, LAGUNA HILLS, CALIFORNIA 92653
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January 28, 2005

ACCREDITED IN ACCORDANCE WITH

Paul Roberts
Ninyo & Moore
475 Goddard Suite 200
Irvine, CA 92618

TEL: (949) 697-2198
FAX: (949) 753-7071

ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196

Workorder No.: 073856

RE: Bloomfield II, 205372005

Attention: Paul Roberts

Enclosed are the results for sample(s) received on January 27, 2005 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

for Eddie F. Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT: Ninyo & Moore
Project: Bloomfield II, 205372005
Lab Order: 073856

CASE NARRATIVE

All volatile soil analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.

Analytical Comments for EPA 8270

The following samples were diluted due to sample matrix:

073856-001G
073856-002G
073856-003G
073856-005G
073856-006G

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-1-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP5_050128A	QC Batch: 21082			PrepDate:	1/27/2005	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	1/28/2005
Arsenic	ND	1.0		mg/Kg	1	1/28/2005
Barium	170	1.0		mg/Kg	1	1/28/2005
Beryllium	ND	1.0		mg/Kg	1	1/28/2005
Cadmium	ND	1.0		mg/Kg	1	1/28/2005
Chromium	23	1.0		mg/Kg	1	1/28/2005
Cobalt	12	1.0		mg/Kg	1	1/28/2005
Copper	30	1.0		mg/Kg	1	1/28/2005
Lead	5.8	1.0		mg/Kg	1	1/28/2005
Molybdenum	1.6	1.0		mg/Kg	1	1/28/2005
Nickel	19	1.0		mg/Kg	1	1/28/2005
Selenium	ND	1.0		mg/Kg	1	1/28/2005
Silver	ND	1.0		mg/Kg	1	1/28/2005
Thallium	ND	1.0		mg/Kg	1	1/28/2005
Vanadium	38	1.0		mg/Kg	1	1/28/2005
Zinc	53	1.0		mg/Kg	1	1/28/2005
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC8_050127A	QC Batch: 21081			PrepDate:	1/27/2005	Analyst: **CBR**
T/R Hydrocarbons: >C32	1000	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C10-C12	1200	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C13-C15	2200	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C16-C22	3800	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C23-C32	3300	50		mg/Kg	5	1/28/2005
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_050128A	QC Batch: E05VS026			PrepDate:	1/27/2005	Analyst: **JV**
GRO	440	54		mg/Kg	50	1/28/2005
MERCURY BY COLD VAPOR TECHNIQUE						
(EPA 7471)				**EPA 7471A**		
RunID: AA1_050128A	QC Batch: 21084			PrepDate:	1/27/2005	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-1-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-001	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050127A QC Batch: R05VS020 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.8		µg/Kg	1	1/27/2005
1,1,1-Trichloroethane	ND	5.8		µg/Kg	1	1/27/2005
1,1,2,2-Tetrachloroethane	ND	5.8		µg/Kg	1	1/27/2005
1,1,2-Trichloroethane	ND	5.8		µg/Kg	1	1/27/2005
1,1-Dichloroethane	ND	5.8		µg/Kg	1	1/27/2005
1,1-Dichloroethene	ND	5.8		µg/Kg	1	1/27/2005
1,1-Dichloropropene	ND	5.8		µg/Kg	1	1/27/2005
1,2,3-Trichlorobenzene	ND	5.8		µg/Kg	1	1/27/2005
1,2,3-Trichloropropane	ND	5.8		µg/Kg	1	1/27/2005
1,2,4-Trichlorobenzene	ND	5.8		µg/Kg	1	1/27/2005
1,2,4-Trimethylbenzene	ND	5.8		µg/Kg	1	1/27/2005
1,2-Dibromo-3-chloropropane	ND	12		µg/Kg	1	1/27/2005
1,2-Dibromoethane	ND	5.8		µg/Kg	1	1/27/2005
1,2-Dichlorobenzene	ND	5.8		µg/Kg	1	1/27/2005
1,2-Dichloroethane	ND	5.8		µg/Kg	1	1/27/2005
1,2-Dichloropropane	ND	5.8		µg/Kg	1	1/27/2005
1,3,5-Trimethylbenzene	ND	5.8		µg/Kg	1	1/27/2005
1,3-Dichlorobenzene	ND	5.8		µg/Kg	1	1/27/2005
1,3-Dichloropropane	ND	5.8		µg/Kg	1	1/27/2005
1,4-Dichlorobenzene	ND	5.8		µg/Kg	1	1/27/2005
2,2-Dichloropropane	ND	5.8		µg/Kg	1	1/27/2005
2-Chlorotoluene	ND	5.8		µg/Kg	1	1/27/2005
4-Chlorotoluene	ND	5.8		µg/Kg	1	1/27/2005
4-Isopropyltoluene	ND	5.8		µg/Kg	1	1/27/2005
Benzene	ND	5.8		µg/Kg	1	1/27/2005
Bromobenzene	ND	5.8		µg/Kg	1	1/27/2005
Bromodichloromethane	ND	5.8		µg/Kg	1	1/27/2005
Bromoform	ND	5.8		µg/Kg	1	1/27/2005
Bromomethane	ND	5.8		µg/Kg	1	1/27/2005
Carbon tetrachloride	ND	5.8		µg/Kg	1	1/27/2005
Chlorobenzene	ND	5.8		µg/Kg	1	1/27/2005
Chloroethane	ND	5.8		µg/Kg	1	1/27/2005
Chloroform	ND	5.8		µg/Kg	1	1/27/2005
Chloromethane	ND	5.8		µg/Kg	1	1/27/2005
cis-1,2-Dichloroethene	ND	5.8		µg/Kg	1	1/27/2005
cis-1,3-Dichloropropene	ND	5.8		µg/Kg	1	1/27/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-1-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-001	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050127A QC Batch: R05VS020 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	5.8		µg/Kg	1	1/27/2005
Dibromomethane	ND	5.8		µg/Kg	1	1/27/2005
Dichlorodifluoromethane	ND	5.8		µg/Kg	1	1/27/2005
Ethylbenzene	27	5.8		µg/Kg	1	1/27/2005
Hexachlorobutadiene	ND	5.8		µg/Kg	1	1/27/2005
Isopropylbenzene	140	5.8		µg/Kg	1	1/27/2005
m,p-Xylene	ND	5.8		µg/Kg	1	1/27/2005
Methylene chloride	ND	5.8		µg/Kg	1	1/27/2005
n-Butylbenzene	38	5.8		µg/Kg	1	1/27/2005
n-Propylbenzene	230	5.8		µg/Kg	1	1/27/2005
Naphthalene	16000	580		µg/Kg	100	1/28/2005
o-Xylene	ND	5.8		µg/Kg	1	1/27/2005
sec-Butylbenzene	110	5.8		µg/Kg	1	1/27/2005
Styrene	ND	5.8		µg/Kg	1	1/27/2005
tert-Butylbenzene	ND	5.8		µg/Kg	1	1/27/2005
Tetrachloroethene	ND	5.8		µg/Kg	1	1/27/2005
Toluene	ND	5.8		µg/Kg	1	1/27/2005
trans-1,2-Dichloroethene	ND	5.8		µg/Kg	1	1/27/2005
Trichloroethene	ND	5.8		µg/Kg	1	1/27/2005
Trichlorofluoromethane	ND	5.8		µg/Kg	1	1/27/2005
Vinyl chloride	ND	5.8		µg/Kg	1	1/27/2005

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS6_050127B QC Batch: 21085 PrepDate: 1/27/2005 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
2-Methylnaphthalene	53000	16000		µg/Kg	50	1/28/2005
Acenaphthene	ND	16000		µg/Kg	50	1/28/2005
Acenaphthylene	ND	16000		µg/Kg	50	1/28/2005
Anthracene	ND	16000		µg/Kg	50	1/28/2005
Benzo(a)anthracene	ND	16000		µg/Kg	50	1/28/2005
Benzo(a)pyrene	ND	16000		µg/Kg	50	1/28/2005
Benzo(b)fluoranthene	ND	16000		µg/Kg	50	1/28/2005
Benzo(g,h,i)perylene	ND	16000		µg/Kg	50	1/28/2005
Benzo(k)fluoranthene	ND	16000		µg/Kg	50	1/28/2005
Chrysene	ND	16000		µg/Kg	50	1/28/2005
Dibenz(a,h)anthracene	ND	16000		µg/Kg	50	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-1-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-001	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085				PrepDate: 1/27/2005	Analyst: **JWS**
Fluoranthene	ND	16000		µg/Kg	50	1/28/2005
Fluorene	ND	16000		µg/Kg	50	1/28/2005
Indeno(1,2,3-cd)pyrene	ND	16000		µg/Kg	50	1/28/2005
Naphthalene	17000	16000		µg/Kg	50	1/28/2005
Phenanthrene	ND	16000		µg/Kg	50	1/28/2005
Pyrene	ND	16000		µg/Kg	50	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-2-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-002	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050128A	QC Batch: 21082			PrepDate:	1/27/2005	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	1/28/2005
Arsenic	ND	1.0		mg/Kg	1	1/28/2005
Barium	120	1.0		mg/Kg	1	1/28/2005
Beryllium	ND	1.0		mg/Kg	1	1/28/2005
Cadmium	ND	1.0		mg/Kg	1	1/28/2005
Chromium	18	1.0		mg/Kg	1	1/28/2005
Cobalt	10	1.0		mg/Kg	1	1/28/2005
Copper	22	1.0		mg/Kg	1	1/28/2005
Lead	5.9	1.0		mg/Kg	1	1/28/2005
Molybdenum	1.3	1.0		mg/Kg	1	1/28/2005
Nickel	16	1.0		mg/Kg	1	1/28/2005
Selenium	ND	1.0		mg/Kg	1	1/28/2005
Silver	ND	1.0		mg/Kg	1	1/28/2005
Thallium	ND	1.0		mg/Kg	1	1/28/2005
Vanadium	30	1.0		mg/Kg	1	1/28/2005
Zinc	46	1.0		mg/Kg	1	1/28/2005
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC8_050127A	QC Batch: 21081			PrepDate:	1/27/2005	Analyst: **CBR**
T/R Hydrocarbons: >C32	1500	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C10-C12	1700	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C13-C15	2800	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C16-C22	4900	50		mg/Kg	5	1/28/2005
T/R Hydrocarbons: C23-C32	4600	50		mg/Kg	5	1/28/2005
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_050128A	QC Batch: E05VS026			PrepDate:	1/27/2005	Analyst: **JV**
GRO	4.5	1.2		mg/Kg	1	1/28/2005
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_050128A	QC Batch: 21084			PrepDate:	1/27/2005	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-2-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-002	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050127A QC Batch: R05VS020 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.2		µg/Kg	1	1/27/2005
1,1,1-Trichloroethane	ND	5.2		µg/Kg	1	1/27/2005
1,1,2,2-Tetrachloroethane	ND	5.2		µg/Kg	1	1/27/2005
1,1,2-Trichloroethane	ND	5.2		µg/Kg	1	1/27/2005
1,1-Dichloroethane	ND	5.2		µg/Kg	1	1/27/2005
1,1-Dichloroethene	ND	5.2		µg/Kg	1	1/27/2005
1,1-Dichloropropene	ND	5.2		µg/Kg	1	1/27/2005
1,2,3-Trichlorobenzene	ND	5.2		µg/Kg	1	1/27/2005
1,2,3-Trichloropropane	ND	5.2		µg/Kg	1	1/27/2005
1,2,4-Trichlorobenzene	ND	5.2		µg/Kg	1	1/27/2005
1,2,4-Trimethylbenzene	170	5.2		µg/Kg	1	1/27/2005
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	1/27/2005
1,2-Dibromoethane	ND	5.2		µg/Kg	1	1/27/2005
1,2-Dichlorobenzene	ND	5.2		µg/Kg	1	1/27/2005
1,2-Dichloroethane	ND	5.2		µg/Kg	1	1/27/2005
1,2-Dichloropropane	ND	5.2		µg/Kg	1	1/27/2005
1,3,5-Trimethylbenzene	ND	5.2		µg/Kg	1	1/27/2005
1,3-Dichlorobenzene	ND	5.2		µg/Kg	1	1/27/2005
1,3-Dichloropropane	ND	5.2		µg/Kg	1	1/27/2005
1,4-Dichlorobenzene	ND	5.2		µg/Kg	1	1/27/2005
2,2-Dichloropropane	ND	5.2		µg/Kg	1	1/27/2005
2-Chlorotoluene	ND	5.2		µg/Kg	1	1/27/2005
4-Chlorotoluene	ND	5.2		µg/Kg	1	1/27/2005
4-Isopropyltoluene	45	5.2		µg/Kg	1	1/27/2005
Benzene	ND	5.2		µg/Kg	1	1/27/2005
Bromobenzene	ND	5.2		µg/Kg	1	1/27/2005
Bromodichloromethane	ND	5.2		µg/Kg	1	1/27/2005
Bromoform	ND	5.2		µg/Kg	1	1/27/2005
Bromomethane	ND	5.2		µg/Kg	1	1/27/2005
Carbon tetrachloride	ND	5.2		µg/Kg	1	1/27/2005
Chlorobenzene	ND	5.2		µg/Kg	1	1/27/2005
Chloroethane	ND	5.2		µg/Kg	1	1/27/2005
Chloroform	ND	5.2		µg/Kg	1	1/27/2005
Chloromethane	ND	5.2		µg/Kg	1	1/27/2005
cis-1,2-Dichloroethene	ND	5.2		µg/Kg	1	1/27/2005
cis-1,3-Dichloropropene	ND	5.2		µg/Kg	1	1/27/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-2-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-002	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050127A QC Batch: R05VS020 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Dibromochloromethane	ND	5.2		µg/Kg	1	1/27/2005
Dibromomethane	ND	5.2		µg/Kg	1	1/27/2005
Dichlorodifluoromethane	ND	5.2		µg/Kg	1	1/27/2005
Ethylbenzene	110	5.2		µg/Kg	1	1/27/2005
Hexachlorobutadiene	ND	5.2		µg/Kg	1	1/27/2005
Isopropylbenzene	260	5.2		µg/Kg	1	1/27/2005
m,p-Xylene	ND	5.2		µg/Kg	1	1/27/2005
Methylene chloride	ND	5.2		µg/Kg	1	1/27/2005
n-Butylbenzene	58	5.2		µg/Kg	1	1/27/2005
n-Propylbenzene	7200	2600		µg/Kg	500	1/28/2005
Naphthalene	28000	2600		µg/Kg	500	1/28/2005
o-Xylene	ND	5.2		µg/Kg	1	1/27/2005
sec-Butylbenzene	180	5.2		µg/Kg	1	1/27/2005
Styrene	ND	5.2		µg/Kg	1	1/27/2005
tert-Butylbenzene	ND	5.2		µg/Kg	1	1/27/2005
Tetrachloroethene	ND	5.2		µg/Kg	1	1/27/2005
Toluene	ND	5.2		µg/Kg	1	1/27/2005
trans-1,2-Dichloroethene	ND	5.2		µg/Kg	1	1/27/2005
Trichloroethene	ND	5.2		µg/Kg	1	1/27/2005
Trichlorofluoromethane	ND	5.2		µg/Kg	1	1/27/2005
Vinyl chloride	ND	5.2		µg/Kg	1	1/27/2005

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS6_050127B QC Batch: 21085 PrepDate: 1/27/2005 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
2-Methylnaphthalene	60000	16000		µg/Kg	50	1/28/2005
Acenaphthene	ND	16000		µg/Kg	50	1/28/2005
Acenaphthylene	ND	16000		µg/Kg	50	1/28/2005
Anthracene	ND	16000		µg/Kg	50	1/28/2005
Benzo(a)anthracene	ND	16000		µg/Kg	50	1/28/2005
Benzo(a)pyrene	ND	16000		µg/Kg	50	1/28/2005
Benzo(b)fluoranthene	ND	16000		µg/Kg	50	1/28/2005
Benzo(g,h,i)perylene	ND	16000		µg/Kg	50	1/28/2005
Benzo(k)fluoranthene	ND	16000		µg/Kg	50	1/28/2005
Chrysene	ND	16000		µg/Kg	50	1/28/2005
Dibenz(a,h)anthracene	ND	16000		µg/Kg	50	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T5-2-9
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-002	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085				PrepDate: 1/27/2005	Analyst: **JWS**
Fluoranthene	ND	16000		µg/Kg	50	1/28/2005
Fluorene	ND	16000		µg/Kg	50	1/28/2005
Indeno(1,2,3-cd)pyrene	ND	16000		µg/Kg	50	1/28/2005
Naphthalene	22000	16000		µg/Kg	50	1/28/2005
Phenanthrene	ND	16000		µg/Kg	50	1/28/2005
Pyrene	ND	16000		µg/Kg	50	1/28/2005

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R - RPD outside accepted recovery limits
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Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-1-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-003	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050128A	QC Batch: 21082			PrepDate:	1/27/2005	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	1/28/2005
Arsenic	ND	1.0		mg/Kg	1	1/28/2005
Barium	170	1.0		mg/Kg	1	1/28/2005
Beryllium	ND	1.0		mg/Kg	1	1/28/2005
Cadmium	ND	1.0		mg/Kg	1	1/28/2005
Chromium	18	1.0		mg/Kg	1	1/28/2005
Cobalt	9.6	1.0		mg/Kg	1	1/28/2005
Copper	19	1.0		mg/Kg	1	1/28/2005
Lead	14	1.0		mg/Kg	1	1/28/2005
Molybdenum	ND	1.0		mg/Kg	1	1/28/2005
Nickel	14	1.0		mg/Kg	1	1/28/2005
Selenium	ND	1.0		mg/Kg	1	1/28/2005
Silver	ND	1.0		mg/Kg	1	1/28/2005
Thallium	ND	1.0		mg/Kg	1	1/28/2005
Vanadium	31	1.0		mg/Kg	1	1/28/2005
Zinc	37	1.0		mg/Kg	1	1/28/2005
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC8_050127A	QC Batch: 21081			PrepDate:	1/27/2005	Analyst: **CBR**
T/R Hydrocarbons: >C32	140	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C16-C22	83	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C23-C32	300	10		mg/Kg	1	1/28/2005
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_050127A	QC Batch: E05VS025			PrepDate:	1/27/2005	Analyst: **JV**
GRO	ND	1.2		mg/Kg	1	1/27/2005
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_050128A	QC Batch: 21084			PrepDate:	1/27/2005	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	1/28/2005

Qualifiers:

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R - RPD outside accepted recovery limits
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H-Samples exceding holding time

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Advanced Technology Laboratories
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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-1-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-003	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050128A QC Batch: R05VS021 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.7		µg/Kg	1	1/28/2005
1,1,1-Trichloroethane	ND	5.7		µg/Kg	1	1/28/2005
1,1,2,2-Tetrachloroethane	ND	5.7		µg/Kg	1	1/28/2005
1,1,2-Trichloroethane	ND	5.7		µg/Kg	1	1/28/2005
1,1-Dichloroethane	ND	5.7		µg/Kg	1	1/28/2005
1,1-Dichloroethene	ND	5.7		µg/Kg	1	1/28/2005
1,1-Dichloropropene	ND	5.7		µg/Kg	1	1/28/2005
1,2,3-Trichlorobenzene	ND	5.7		µg/Kg	1	1/28/2005
1,2,3-Trichloropropane	ND	5.7		µg/Kg	1	1/28/2005
1,2,4-Trichlorobenzene	ND	5.7		µg/Kg	1	1/28/2005
1,2,4-Trimethylbenzene	ND	5.7		µg/Kg	1	1/28/2005
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	1/28/2005
1,2-Dibromoethane	ND	5.7		µg/Kg	1	1/28/2005
1,2-Dichlorobenzene	ND	5.7		µg/Kg	1	1/28/2005
1,2-Dichloroethane	ND	5.7		µg/Kg	1	1/28/2005
1,2-Dichloropropane	ND	5.7		µg/Kg	1	1/28/2005
1,3,5-Trimethylbenzene	ND	5.7		µg/Kg	1	1/28/2005
1,3-Dichlorobenzene	ND	5.7		µg/Kg	1	1/28/2005
1,3-Dichloropropane	ND	5.7		µg/Kg	1	1/28/2005
1,4-Dichlorobenzene	ND	5.7		µg/Kg	1	1/28/2005
2,2-Dichloropropane	ND	5.7		µg/Kg	1	1/28/2005
2-Chlorotoluene	ND	5.7		µg/Kg	1	1/28/2005
4-Chlorotoluene	ND	5.7		µg/Kg	1	1/28/2005
4-Isopropyltoluene	ND	5.7		µg/Kg	1	1/28/2005
Benzene	ND	5.7		µg/Kg	1	1/28/2005
Bromobenzene	ND	5.7		µg/Kg	1	1/28/2005
Bromodichloromethane	ND	5.7		µg/Kg	1	1/28/2005
Bromoform	ND	5.7		µg/Kg	1	1/28/2005
Bromomethane	ND	5.7		µg/Kg	1	1/28/2005
Carbon tetrachloride	ND	5.7		µg/Kg	1	1/28/2005
Chlorobenzene	ND	5.7		µg/Kg	1	1/28/2005
Chloroethane	ND	5.7		µg/Kg	1	1/28/2005
Chloroform	ND	5.7		µg/Kg	1	1/28/2005
Chloromethane	ND	5.7		µg/Kg	1	1/28/2005
cis-1,2-Dichloroethene	ND	5.7		µg/Kg	1	1/28/2005
cis-1,3-Dichloropropene	ND	5.7		µg/Kg	1	1/28/2005

Qualifiers:

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R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-1-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-003	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8260B**		
RunID: MS3_050128A	QC Batch: R05VS021			PrepDate: 1/27/2005		Analyst: **JPC**
Dibromochloromethane	ND	5.7		µg/Kg	1	1/28/2005
Dibromomethane	ND	5.7		µg/Kg	1	1/28/2005
Dichlorodifluoromethane	ND	5.7		µg/Kg	1	1/28/2005
Ethylbenzene	ND	5.7		µg/Kg	1	1/28/2005
Hexachlorobutadiene	ND	5.7		µg/Kg	1	1/28/2005
Isopropylbenzene	ND	5.7		µg/Kg	1	1/28/2005
m,p-Xylene	ND	5.7		µg/Kg	1	1/28/2005
Methylene chloride	ND	5.7		µg/Kg	1	1/28/2005
n-Butylbenzene	ND	5.7		µg/Kg	1	1/28/2005
n-Propylbenzene	ND	5.7		µg/Kg	1	1/28/2005
Naphthalene	ND	5.7		µg/Kg	1	1/28/2005
o-Xylene	ND	5.7		µg/Kg	1	1/28/2005
sec-Butylbenzene	ND	5.7		µg/Kg	1	1/28/2005
Styrene	ND	5.7		µg/Kg	1	1/28/2005
tert-Butylbenzene	ND	5.7		µg/Kg	1	1/28/2005
Tetrachloroethene	ND	5.7		µg/Kg	1	1/28/2005
Toluene	ND	5.7		µg/Kg	1	1/28/2005
trans-1,2-Dichloroethene	ND	5.7		µg/Kg	1	1/28/2005
Trichloroethene	ND	5.7		µg/Kg	1	1/28/2005
Trichlorofluoromethane	ND	5.7		µg/Kg	1	1/28/2005
Vinyl chloride	ND	5.7		µg/Kg	1	1/28/2005
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085			PrepDate: 1/27/2005		Analyst: **JWS**
2-Methylnaphthalene	ND	3300		µg/Kg	10	1/28/2005
Acenaphthene	ND	3300		µg/Kg	10	1/28/2005
Acenaphthylene	ND	3300		µg/Kg	10	1/28/2005
Anthracene	ND	3300		µg/Kg	10	1/28/2005
Benzo(a)anthracene	ND	3300		µg/Kg	10	1/28/2005
Benzo(a)pyrene	ND	3300		µg/Kg	10	1/28/2005
Benzo(b)fluoranthene	ND	3300		µg/Kg	10	1/28/2005
Benzo(g,h,i)perylene	ND	3300		µg/Kg	10	1/28/2005
Benzo(k)fluoranthene	ND	3300		µg/Kg	10	1/28/2005
Chrysene	ND	3300		µg/Kg	10	1/28/2005
Dibenz(a,h)anthracene	ND	3300		µg/Kg	10	1/28/2005

Qualifiers:

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J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Page 11 of 24

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-1-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-003	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B)				**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085			PrepDate:	1/27/2005	Analyst: **JWS**
Fluoranthene	ND	3300		µg/Kg	10	1/28/2005
Fluorene	ND	3300		µg/Kg	10	1/28/2005
Indeno(1,2,3-cd)pyrene	ND	3300		µg/Kg	10	1/28/2005
Naphthalene	ND	3300		µg/Kg	10	1/28/2005
Phenanthrene	ND	3300		µg/Kg	10	1/28/2005
Pyrene	ND	3300		µg/Kg	10	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-2-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-004	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)				**EPA 6010B**		
RunID: ICP5_050128A	QC Batch: 21082			PrepDate:	1/27/2005	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	1/28/2005
Arsenic	ND	1.0		mg/Kg	1	1/28/2005
Barium	120	1.0		mg/Kg	1	1/28/2005
Beryllium	ND	1.0		mg/Kg	1	1/28/2005
Cadmium	ND	1.0		mg/Kg	1	1/28/2005
Chromium	23	1.0		mg/Kg	1	1/28/2005
Cobalt	11	1.0		mg/Kg	1	1/28/2005
Copper	21	1.0		mg/Kg	1	1/28/2005
Lead	5.7	1.0		mg/Kg	1	1/28/2005
Molybdenum	ND	1.0		mg/Kg	1	1/28/2005
Nickel	16	1.0		mg/Kg	1	1/28/2005
Selenium	ND	1.0		mg/Kg	1	1/28/2005
Silver	ND	1.0		mg/Kg	1	1/28/2005
Thallium	ND	1.0		mg/Kg	1	1/28/2005
Vanadium	39	1.0		mg/Kg	1	1/28/2005
Zinc	46	1.0		mg/Kg	1	1/28/2005
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)				**EPA 8015B**		
RunID: GC8_050127A	QC Batch: 21081			PrepDate:	1/27/2005	Analyst: **CBR**
T/R Hydrocarbons: >C32	10	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C16-C22	15	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C23-C32	22	10		mg/Kg	1	1/28/2005
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_050127A	QC Batch: E05VS025			PrepDate:	1/27/2005	Analyst: **JV**
GRO	ND	1.3		mg/Kg	1	1/27/2005
MERCURY BY COLD VAPOR TECHNIQUE						
(EPA 7471)				**EPA 7471A**		
RunID: AA1_050128A	QC Batch: 21084			PrepDate:	1/27/2005	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-2-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-004	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050128A QC Batch: R05VS021 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	6.6		µg/Kg	1	1/28/2005
1,1,1-Trichloroethane	ND	6.6		µg/Kg	1	1/28/2005
1,1,2,2-Tetrachloroethane	ND	6.6		µg/Kg	1	1/28/2005
1,1,2-Trichloroethane	ND	6.6		µg/Kg	1	1/28/2005
1,1-Dichloroethane	ND	6.6		µg/Kg	1	1/28/2005
1,1-Dichloroethene	ND	6.6		µg/Kg	1	1/28/2005
1,1-Dichloropropene	ND	6.6		µg/Kg	1	1/28/2005
1,2,3-Trichlorobenzene	ND	6.6		µg/Kg	1	1/28/2005
1,2,3-Trichloropropane	ND	6.6		µg/Kg	1	1/28/2005
1,2,4-Trichlorobenzene	ND	6.6		µg/Kg	1	1/28/2005
1,2,4-Trimethylbenzene	ND	6.6		µg/Kg	1	1/28/2005
1,2-Dibromo-3-chloropropane	ND	13		µg/Kg	1	1/28/2005
1,2-Dibromoethane	ND	6.6		µg/Kg	1	1/28/2005
1,2-Dichlorobenzene	ND	6.6		µg/Kg	1	1/28/2005
1,2-Dichloroethane	ND	6.6		µg/Kg	1	1/28/2005
1,2-Dichloropropane	ND	6.6		µg/Kg	1	1/28/2005
1,3,5-Trimethylbenzene	ND	6.6		µg/Kg	1	1/28/2005
1,3-Dichlorobenzene	ND	6.6		µg/Kg	1	1/28/2005
1,3-Dichloropropane	ND	6.6		µg/Kg	1	1/28/2005
1,4-Dichlorobenzene	ND	6.6		µg/Kg	1	1/28/2005
2,2-Dichloropropane	ND	6.6		µg/Kg	1	1/28/2005
2-Chlorotoluene	ND	6.6		µg/Kg	1	1/28/2005
4-Chlorotoluene	ND	6.6		µg/Kg	1	1/28/2005
4-Isopropyltoluene	ND	6.6		µg/Kg	1	1/28/2005
Benzene	ND	6.6		µg/Kg	1	1/28/2005
Bromobenzene	ND	6.6		µg/Kg	1	1/28/2005
Bromodichloromethane	ND	6.6		µg/Kg	1	1/28/2005
Bromoform	ND	6.6		µg/Kg	1	1/28/2005
Bromomethane	ND	6.6		µg/Kg	1	1/28/2005
Carbon tetrachloride	ND	6.6		µg/Kg	1	1/28/2005
Chlorobenzene	ND	6.6		µg/Kg	1	1/28/2005
Chloroethane	ND	6.6		µg/Kg	1	1/28/2005
Chloroform	ND	6.6		µg/Kg	1	1/28/2005
Chloromethane	ND	6.6		µg/Kg	1	1/28/2005
cis-1,2-Dichloroethene	ND	6.6		µg/Kg	1	1/28/2005
cis-1,3-Dichloropropene	ND	6.6		µg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-2-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-004	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_050128A	QC Batch: R05VS021			PrepDate:	1/27/2005	Analyst: **JPC**
Dibromochloromethane	ND	6.6		µg/Kg	1	1/28/2005
Dibromomethane	ND	6.6		µg/Kg	1	1/28/2005
Dichlorodifluoromethane	ND	6.6		µg/Kg	1	1/28/2005
Ethylbenzene	ND	6.6		µg/Kg	1	1/28/2005
Hexachlorobutadiene	ND	6.6		µg/Kg	1	1/28/2005
Isopropylbenzene	ND	6.6		µg/Kg	1	1/28/2005
m,p-Xylene	ND	6.6		µg/Kg	1	1/28/2005
Methylene chloride	ND	6.6		µg/Kg	1	1/28/2005
n-Butylbenzene	ND	6.6		µg/Kg	1	1/28/2005
n-Propylbenzene	ND	6.6		µg/Kg	1	1/28/2005
Naphthalene	ND	6.6		µg/Kg	1	1/28/2005
o-Xylene	ND	6.6		µg/Kg	1	1/28/2005
sec-Butylbenzene	ND	6.6		µg/Kg	1	1/28/2005
Styrene	ND	6.6		µg/Kg	1	1/28/2005
tert-Butylbenzene	ND	6.6		µg/Kg	1	1/28/2005
Tetrachloroethene	ND	6.6		µg/Kg	1	1/28/2005
Toluene	ND	6.6		µg/Kg	1	1/28/2005
trans-1,2-Dichloroethene	ND	6.6		µg/Kg	1	1/28/2005
Trichloroethene	ND	6.6		µg/Kg	1	1/28/2005
Trichlorofluoromethane	ND	6.6		µg/Kg	1	1/28/2005
Vinyl chloride	ND	6.6		µg/Kg	1	1/28/2005
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	(EPA 3550B)			**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085			PrepDate:	1/27/2005	Analyst: **JWS**
2-Methylnaphthalene	ND	330		µg/Kg	1	1/28/2005
Acenaphthene	ND	330		µg/Kg	1	1/28/2005
Acenaphthylene	ND	330		µg/Kg	1	1/28/2005
Anthracene	ND	330		µg/Kg	1	1/28/2005
Benzo(a)anthracene	ND	330		µg/Kg	1	1/28/2005
Benzo(a)pyrene	ND	330		µg/Kg	1	1/28/2005
Benzo(b)fluoranthene	ND	330		µg/Kg	1	1/28/2005
Benzo(g,h,i)perylene	ND	330		µg/Kg	1	1/28/2005
Benzo(k)fluoranthene	ND	330		µg/Kg	1	1/28/2005
Chrysene	ND	330		µg/Kg	1	1/28/2005
Dibenz(a,h)anthracene	ND	330		µg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T6-2-2
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-004	**Matrix:**	SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS6_050127B QC Batch: 21085 PrepDate: 1/27/2005 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Fluoranthene	ND	330		µg/Kg	1	1/28/2005
Fluorene	ND	330		µg/Kg	1	1/28/2005
Indeno(1,2,3-cd)pyrene	ND	330		µg/Kg	1	1/28/2005
Naphthalene	ND	330		µg/Kg	1	1/28/2005
Phenanthrene	ND	330		µg/Kg	1	1/28/2005
Pyrene	ND	330		µg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories

3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-1-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-005	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	(EPA 3050B)			**EPA 6010B**		
RunID: ICP5_050128A	QC Batch: 21082			PrepDate:	1/27/2005	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	1/28/2005
Arsenic	ND	1.0		mg/Kg	1	1/28/2005
Barium	110	1.0		mg/Kg	1	1/28/2005
Beryllium	ND	1.0		mg/Kg	1	1/28/2005
Cadmium	ND	1.0		mg/Kg	1	1/28/2005
Chromium	16	1.0		mg/Kg	1	1/28/2005
Cobalt	7.8	1.0		mg/Kg	1	1/28/2005
Copper	16	1.0		mg/Kg	1	1/28/2005
Lead	17	1.0		mg/Kg	1	1/28/2005
Molybdenum	1.9	1.0		mg/Kg	1	1/28/2005
Nickel	12	1.0		mg/Kg	1	1/28/2005
Selenium	ND	1.0		mg/Kg	1	1/28/2005
Silver	ND	1.0		mg/Kg	1	1/28/2005
Thallium	ND	1.0		mg/Kg	1	1/28/2005
Vanadium	25	1.0		mg/Kg	1	1/28/2005
Zinc	59	1.0		mg/Kg	1	1/28/2005
HYDROCARBON CHAIN IDENTIFICATION						
	(LUFT)			**EPA 8015B**		
RunID: GC8_050127A	QC Batch: 21081			PrepDate:	1/27/2005	Analyst: **CBR**
T/R Hydrocarbons: >C32	30	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C16-C22	13	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C23-C32	47	10		mg/Kg	1	1/28/2005
GASOLINE RANGE ORGANICS BY GC/FID						
				EPA 8015B(M)		
RunID: GC2_050128A	QC Batch: E05VS026			PrepDate:	1/27/2005	Analyst: **JV**
GRO	ND	1.3		mg/Kg	1	1/28/2005
MERCURY BY COLD VAPOR TECHNIQUE						
	(EPA 7471)			**EPA 7471A**		
RunID: AA1_050128A	QC Batch: 21084			PrepDate:	1/27/2005	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	1/28/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-1-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-005	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050127A QC Batch: R05VS020 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.5		µg/Kg	1	1/27/2005
1,1,1-Trichloroethane	ND	5.5		µg/Kg	1	1/27/2005
1,1,2,2-Tetrachloroethane	ND	5.5		µg/Kg	1	1/27/2005
1,1,2-Trichloroethane	ND	5.5		µg/Kg	1	1/27/2005
1,1-Dichloroethane	ND	5.5		µg/Kg	1	1/27/2005
1,1-Dichloroethene	ND	5.5		µg/Kg	1	1/27/2005
1,1-Dichloropropene	ND	5.5		µg/Kg	1	1/27/2005
1,2,3-Trichlorobenzene	ND	5.5		µg/Kg	1	1/27/2005
1,2,3-Trichloropropane	ND	5.5		µg/Kg	1	1/27/2005
1,2,4-Trichlorobenzene	ND	5.5		µg/Kg	1	1/27/2005
1,2,4-Trimethylbenzene	ND	5.5		µg/Kg	1	1/27/2005
1,2-Dibromo-3-chloropropane	ND	11		µg/Kg	1	1/27/2005
1,2-Dibromoethane	ND	5.5		µg/Kg	1	1/27/2005
1,2-Dichlorobenzene	ND	5.5		µg/Kg	1	1/27/2005
1,2-Dichloroethane	ND	5.5		µg/Kg	1	1/27/2005
1,2-Dichloropropane	ND	5.5		µg/Kg	1	1/27/2005
1,3,5-Trimethylbenzene	ND	5.5		µg/Kg	1	1/27/2005
1,3-Dichlorobenzene	ND	5.5		µg/Kg	1	1/27/2005
1,3-Dichloropropane	ND	5.5		µg/Kg	1	1/27/2005
1,4-Dichlorobenzene	ND	5.5		µg/Kg	1	1/27/2005
2,2-Dichloropropane	ND	5.5		µg/Kg	1	1/27/2005
2-Chlorotoluene	ND	5.5		µg/Kg	1	1/27/2005
4-Chlorotoluene	ND	5.5		µg/Kg	1	1/27/2005
4-Isopropyltoluene	ND	5.5		µg/Kg	1	1/27/2005
Benzene	ND	5.5		µg/Kg	1	1/27/2005
Bromobenzene	ND	5.5		µg/Kg	1	1/27/2005
Bromodichloromethane	ND	5.5		µg/Kg	1	1/27/2005
Bromoform	ND	5.5		µg/Kg	1	1/27/2005
Bromomethane	ND	5.5		µg/Kg	1	1/27/2005
Carbon tetrachloride	ND	5.5		µg/Kg	1	1/27/2005
Chlorobenzene	ND	5.5		µg/Kg	1	1/27/2005
Chloroethane	ND	5.5		µg/Kg	1	1/27/2005
Chloroform	ND	5.5		µg/Kg	1	1/27/2005
Chloromethane	ND	5.5		µg/Kg	1	1/27/2005
cis-1,2-Dichloroethene	ND	5.5		µg/Kg	1	1/27/2005
cis-1,3-Dichloropropene	ND	5.5		µg/Kg	1	1/27/2005

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-1-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-005	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				**EPA 8260B**		
RunID: MS3_050127A	QC Batch: R05VS020			PrepDate:	1/27/2005	Analyst: **JPC**
Dibromochloromethane	ND	5.5		µg/Kg	1	1/27/2005
Dibromomethane	ND	5.5		µg/Kg	1	1/27/2005
Dichlorodifluoromethane	ND	5.5		µg/Kg	1	1/27/2005
Ethylbenzene	ND	5.5		µg/Kg	1	1/27/2005
Hexachlorobutadiene	ND	5.5		µg/Kg	1	1/27/2005
Isopropylbenzene	ND	5.5		µg/Kg	1	1/27/2005
m,p-Xylene	ND	5.5		µg/Kg	1	1/27/2005
Methylene chloride	ND	5.5		µg/Kg	1	1/27/2005
n-Butylbenzene	ND	5.5		µg/Kg	1	1/27/2005
n-Propylbenzene	ND	5.5		µg/Kg	1	1/27/2005
Naphthalene	ND	5.5		µg/Kg	1	1/27/2005
o-Xylene	ND	5.5		µg/Kg	1	1/27/2005
sec-Butylbenzene	ND	5.5		µg/Kg	1	1/27/2005
Styrene	ND	5.5		µg/Kg	1	1/27/2005
tert-Butylbenzene	ND	5.5		µg/Kg	1	1/27/2005
Tetrachloroethene	ND	5.5		µg/Kg	1	1/27/2005
Toluene	ND	5.5		µg/Kg	1	1/27/2005
trans-1,2-Dichloroethene	ND	5.5		µg/Kg	1	1/27/2005
Trichloroethene	ND	5.5		µg/Kg	1	1/27/2005
Trichlorofluoromethane	ND	5.5		µg/Kg	1	1/27/2005
Vinyl chloride	ND	5.5		µg/Kg	1	1/27/2005
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	(EPA 3550B)			**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085			PrepDate:	1/27/2005	Analyst: **JWS**
2-Methylnaphthalene	ND	1600		µg/Kg	5	1/28/2005
Acenaphthene	ND	1600		µg/Kg	5	1/28/2005
Acenaphthylene	ND	1600		µg/Kg	5	1/28/2005
Anthracene	ND	1600		µg/Kg	5	1/28/2005
Benzo(a)anthracene	ND	1600		µg/Kg	5	1/28/2005
Benzo(a)pyrene	ND	1600		µg/Kg	5	1/28/2005
Benzo(b)fluoranthene	ND	1600		µg/Kg	5	1/28/2005
Benzo(g,h,i)perylene	ND	1600		µg/Kg	5	1/28/2005
Benzo(k)fluoranthene	ND	1600		µg/Kg	5	1/28/2005
Chrysene	ND	1600		µg/Kg	5	1/28/2005
Dibenz(a,h)anthracene	ND	1600		µg/Kg	5	1/28/2005

Qualifiers:

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DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-1-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-005	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS (EPA 3550B) EPA 8270C						
RunID: MS6_050127B QC Batch: 21085 PrepDate: 1/27/2005 Analyst: **JWS**						
Fluoranthene	ND	1600		µg/Kg	5	1/28/2005
Fluorene	ND	1600		µg/Kg	5	1/28/2005
Indeno(1,2,3-cd)pyrene	ND	1600		µg/Kg	5	1/28/2005
Naphthalene	ND	1600		µg/Kg	5	1/28/2005
Phenanthrene	ND	1600		µg/Kg	5	1/28/2005
Pyrene	ND	1600		µg/Kg	5	1/28/2005

Qualifiers:

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J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
DO - Surrogate Diluted Out
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H-Samples exceding holding time

Results are wet unless otherwise specified

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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-2-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-006	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
(EPA 3050B)			**EPA 6010B**			
RunID: ICP5_050128A	QC Batch: 21082			PrepDate:	1/27/2005	Analyst: **RQ**
Antimony	ND	1.0		mg/Kg	1	1/28/2005
Arsenic	ND	1.0		mg/Kg	1	1/28/2005
Barium	110	1.0		mg/Kg	1	1/28/2005
Beryllium	ND	1.0		mg/Kg	1	1/28/2005
Cadmium	ND	1.0		mg/Kg	1	1/28/2005
Chromium	16	1.0		mg/Kg	1	1/28/2005
Cobalt	8.4	1.0		mg/Kg	1	1/28/2005
Copper	27	1.0		mg/Kg	1	1/28/2005
Lead	20	1.0		mg/Kg	1	1/28/2005
Molybdenum	1.6	1.0		mg/Kg	1	1/28/2005
Nickel	14	1.0		mg/Kg	1	1/28/2005
Selenium	ND	1.0		mg/Kg	1	1/28/2005
Silver	ND	1.0		mg/Kg	1	1/28/2005
Thallium	ND	1.0		mg/Kg	1	1/28/2005
Vanadium	27	1.0		mg/Kg	1	1/28/2005
Zinc	72	1.0		mg/Kg	1	1/28/2005
HYDROCARBON CHAIN IDENTIFICATION						
(LUFT)			**EPA 8015B**			
RunID: GC8_050127A	QC Batch: 21081			PrepDate:	1/27/2005	Analyst: **CBR**
T/R Hydrocarbons: >C32	15	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C10-C12	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C13-C15	ND	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C16-C22	17	10		mg/Kg	1	1/28/2005
T/R Hydrocarbons: C23-C32	34	10		mg/Kg	1	1/28/2005
GASOLINE RANGE ORGANICS BY GC/FID						
			EPA 8015B(M)			
RunID: GC2_050127A	QC Batch: E05VS025			PrepDate:	1/27/2005	Analyst: **JV**
GRO	3.2	0.95		mg/Kg	1	1/27/2005
MERCURY BY COLD VAPOR TECHNIQUE						
(EPA 7471)			**EPA 7471A**			
RunID: AA1_050128A	QC Batch: 21084			PrepDate:	1/27/2005	Analyst: **JT**
Mercury	ND	0.10		mg/Kg	1	1/28/2005

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R - RPD outside accepted recovery limits
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H-Samples exceding holding time

Results are wet unless otherwise specified

Advanced Technology Laboratories
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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-2-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-006	**Matrix:**	SOIL

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID: MS3_050127A QC Batch: R05VS020 PrepDate: 1/27/2005 Analyst: **JPC**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	5.1		µg/Kg	1	1/27/2005
1,1,1-Trichloroethane	ND	5.1		µg/Kg	1	1/27/2005
1,1,2,2-Tetrachloroethane	ND	5.1		µg/Kg	1	1/27/2005
1,1,2-Trichloroethane	ND	5.1		µg/Kg	1	1/27/2005
1,1-Dichloroethane	ND	5.1		µg/Kg	1	1/27/2005
1,1-Dichloroethene	ND	5.1		µg/Kg	1	1/27/2005
1,1-Dichloropropene	ND	5.1		µg/Kg	1	1/27/2005
1,2,3-Trichlorobenzene	ND	5.1		µg/Kg	1	1/27/2005
1,2,3-Trichloropropane	ND	5.1		µg/Kg	1	1/27/2005
1,2,4-Trichlorobenzene	ND	5.1		µg/Kg	1	1/27/2005
1,2,4-Trimethylbenzene	31	5.1		µg/Kg	1	1/27/2005
1,2-Dibromo-3-chloropropane	ND	10		µg/Kg	1	1/27/2005
1,2-Dibromoethane	ND	5.1		µg/Kg	1	1/27/2005
1,2-Dichlorobenzene	ND	5.1		µg/Kg	1	1/27/2005
1,2-Dichloroethane	ND	5.1		µg/Kg	1	1/27/2005
1,2-Dichloropropane	ND	5.1		µg/Kg	1	1/27/2005
1,3,5-Trimethylbenzene	12	5.1		µg/Kg	1	1/27/2005
1,3-Dichlorobenzene	ND	5.1		µg/Kg	1	1/27/2005
1,3-Dichloropropane	ND	5.1		µg/Kg	1	1/27/2005
1,4-Dichlorobenzene	ND	5.1		µg/Kg	1	1/27/2005
2,2-Dichloropropane	ND	5.1		µg/Kg	1	1/27/2005
2-Chlorotoluene	ND	5.1		µg/Kg	1	1/27/2005
4-Chlorotoluene	ND	5.1		µg/Kg	1	1/27/2005
4-Isopropyltoluene	ND	5.1		µg/Kg	1	1/27/2005
Benzene	23	5.1		µg/Kg	1	1/27/2005
Bromobenzene	ND	5.1		µg/Kg	1	1/27/2005
Bromodichloromethane	ND	5.1		µg/Kg	1	1/27/2005
Bromoform	ND	5.1		µg/Kg	1	1/27/2005
Bromomethane	ND	5.1		µg/Kg	1	1/27/2005
Carbon tetrachloride	ND	5.1		µg/Kg	1	1/27/2005
Chlorobenzene	ND	5.1		µg/Kg	1	1/27/2005
Chloroethane	ND	5.1		µg/Kg	1	1/27/2005
Chloroform	ND	5.1		µg/Kg	1	1/27/2005
Chloromethane	ND	5.1		µg/Kg	1	1/27/2005
cis-1,2-Dichloroethene	ND	5.1		µg/Kg	1	1/27/2005
cis-1,3-Dichloropropene	ND	5.1		µg/Kg	1	1/27/2005

Qualifiers:

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Results are wet unless otherwise specified

Advanced Technology Laboratories
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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-2-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-006	**Matrix:**	SOIL

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				EPA 8260B		
RunID: MS3_050127A	QC Batch: R05VS020			PrepDate:	1/27/2005	Analyst: **JPC**
Dibromochloromethane	ND	5.1		µg/Kg	1	1/27/2005
Dibromomethane	ND	5.1		µg/Kg	1	1/27/2005
Dichlorodifluoromethane	ND	5.1		µg/Kg	1	1/27/2005
Ethylbenzene	ND	5.1		µg/Kg	1	1/27/2005
Hexachlorobutadiene	ND	5.1		µg/Kg	1	1/27/2005
Isopropylbenzene	ND	5.1		µg/Kg	1	1/27/2005
m,p-Xylene	75	5.1		µg/Kg	1	1/27/2005
Methylene chloride	ND	5.1		µg/Kg	1	1/27/2005
n-Butylbenzene	ND	5.1		µg/Kg	1	1/27/2005
n-Propylbenzene	ND	5.1		µg/Kg	1	1/27/2005
Naphthalene	14	5.1		µg/Kg	1	1/27/2005
o-Xylene	25	5.1		µg/Kg	1	1/27/2005
sec-Butylbenzene	ND	5.1		µg/Kg	1	1/27/2005
Styrene	ND	5.1		µg/Kg	1	1/27/2005
tert-Butylbenzene	ND	5.1		µg/Kg	1	1/27/2005
Tetrachloroethene	ND	5.1		µg/Kg	1	1/27/2005
Toluene	16	5.1		µg/Kg	1	1/27/2005
trans-1,2-Dichloroethene	ND	5.1		µg/Kg	1	1/27/2005
Trichloroethene	ND	5.1		µg/Kg	1	1/27/2005
Trichlorofluoromethane	ND	5.1		µg/Kg	1	1/27/2005
Vinyl chloride	ND	5.1		µg/Kg	1	1/27/2005
SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS						
	(EPA 3550B)			**EPA 8270C**		
RunID: MS6_050127B	QC Batch: 21085			PrepDate:	1/27/2005	Analyst: **JWS**
2-Methylnaphthalene	ND	1600		µg/Kg	5	1/28/2005
Acenaphthene	ND	1600		µg/Kg	5	1/28/2005
Acenaphthylene	ND	1600		µg/Kg	5	1/28/2005
Anthracene	ND	1600		µg/Kg	5	1/28/2005
Benzo(a)anthracene	ND	1600		µg/Kg	5	1/28/2005
Benzo(a)pyrene	ND	1600		µg/Kg	5	1/28/2005
Benzo(b)fluoranthene	ND	1600		µg/Kg	5	1/28/2005
Benzo(g,h,i)perylene	ND	1600		µg/Kg	5	1/28/2005
Benzo(k)fluoranthene	ND	1600		µg/Kg	5	1/28/2005
Chrysene	ND	1600		µg/Kg	5	1/28/2005
Dibenz(a,h)anthracene	ND	1600		µg/Kg	5	1/28/2005

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
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Results are wet unless otherwise specified

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT:	Ninyo & Moore	**Client Sample ID:**	T7-2-4
Lab Order:	073856		
Project:	Bloomfield II, 205372005	**Collection Date:**	1/27/2005
Lab ID:	073856-006	**Matrix:**	SOIL

SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS

(EPA 3550B) **EPA 8270C**

RunID: MS6_050127B QC Batch: 21085 PrepDate: 1/27/2005 Analyst: **JWS**

Analyte	Result	PQL	Qual	Units	DF	Date Analyzed
Fluoranthene	ND	1600		µg/Kg	5	1/28/2005
Fluorene	ND	1600		µg/Kg	5	1/28/2005
Indeno(1,2,3-cd)pyrene	ND	1600		µg/Kg	5	1/28/2005
Naphthalene	ND	1600		µg/Kg	5	1/28/2005
Phenanthrene	ND	1600		µg/Kg	5	1/28/2005
Pyrene	ND	1600		µg/Kg	5	1/28/2005

Qualifiers:

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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-21082** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **ICP5_050128A**
Client ID: **ZZZZZ** Batch ID: **21082** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **1/28/2005** SeqNo: **672252**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: **LCS-21082** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **ICP5_050128A**
Client ID: **ZZZZZ** Batch ID: **21082** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **1/28/2005** SeqNo: **672253**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.33	2.0	50	0	98.7	80	120	0	0		
Arsenic	49.48	1.0	50	0	99	80	120	0	0		
Barium	50.07	1.0	50	0	100	80	120	0	0		
Beryllium	49.33	1.0	50	0	98.7	80	120	0	0		
Cadmium	49.58	1.0	50	0	99.2	80	120	0	0		
Chromium	49.83	1.0	50	0	99.7	80	120	0	0		
Cobalt	50.18	1.0	50	0	100	80	120	0	0		
Copper	50.02	2.0	50	0	100	80	120	0	0		

Qualifiers:
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **LCS-21082** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **ICP5_050128A**
Client ID: **ZZZZZ** Batch ID: **21082** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **1/28/2005** SeqNo: **672253**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.56	1.0	50	0	99.1	80	120	0	0		
Molybdenum	49.8	1.0	50	0	99.6	80	120	0	0		
Nickel	49.11	1.0	50	0	98.2	80	120	0	0		
Selenium	47.52	1.0	50	0	95	80	120	0	0		
Silver	50.79	1.0	50	0	102	80	120	0	0		
Thallium	49.92	1.0	50	0	99.8	80	120	0	0		
Vanadium	50.05	1.0	50	0	100	80	120	0	0		
Zinc	49.71	1.0	50	0	99.4	80	120	0	0		

Sample ID: **073856-006GMS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **ICP5_050128A**
Client ID: **T7-2-4** Batch ID: **21082** TestNo: **EPA 6010B** **(EPA 3050B)** Analysis Date: **1/28/2005** SeqNo: **672260**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	77.21	1.0	125	0	61.8	23	118	0	0		
Arsenic	106.3	1.0	125	0	85	64	111	0	0		
Barium	213.2	1.0	125	113.9	79.4	36	146	0	0		
Beryllium	101.8	1.0	125	0	81.5	50	120	0	0		
Cadmium	100.9	1.0	125	0	80.7	62	107	0	0		
Chromium	118.4	1.0	125	16.37	81.6	63	119	0	0		
Cobalt	110.6	1.0	125	8.425	81.8	63	111	0	0		
Copper	129.8	1.0	125	27.44	81.9	58	136	0	0		
Lead	115.4	1.0	125	19.97	76.4	47	125	0	0		
Molybdenum	106.7	1.0	125	1.567	84.1	63	116	0	0		
Nickel	112.4	1.0	125	14.41	78.4	57	116	0	0		
Selenium	100.3	1.0	125	0	80.2	47	118	0	0		
Silver	104.7	1.0	125	0	83.8	48	125	0	0		
Thallium	91.68	1.0	125	0	73.3	49	116	0	0		
Vanadium	132.6	1.0	125	26.8	84.6	65	122	0	0		
Zinc	155.2	1.0	125	71.88	66.7	36	140	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **073856-006GMSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **ICP5_050128A**
Client ID: **T7-2-4** Batch ID: **21082** TestNo: **EPA 6010B (EPA 3050B)** Analysis Date: **1/28/2005** SeqNo: **672261**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	80.26	1.0	125	0	64.2	23	118	77.21	3.88	20	
Arsenic	107.6	1.0	125	0	86.1	64	111	106.3	1.26	20	
Barium	290.9	1.0	125	113.9	142	36	146	213.2	30.8	20	R
Beryllium	101.8	1.0	125	0	81.4	50	120	101.8	0.0264	20	
Cadmium	99.08	1.0	125	0	79.3	62	107	100.9	1.78	20	
Chromium	120.1	1.0	125	16.37	83	63	119	118.4	1.45	20	
Cobalt	109.5	1.0	125	8.425	80.8	63	111	110.6	1.06	20	
Copper	133.8	1.0	125	27.44	85.1	58	136	129.8	3.03	20	
Lead	114.9	1.0	125	19.97	75.9	47	125	115.4	0.478	20	
Molybdenum	106.9	1.0	125	1.567	84.3	63	116	106.7	0.193	20	
Nickel	113.1	1.0	125	14.41	78.9	57	116	112.4	0.652	20	
Selenium	101.3	1.0	125	0	81	47	118	100.3	0.984	20	
Silver	106.6	1.0	125	0	85.3	48	125	104.7	1.81	20	
Thallium	90.14	1.0	125	0	72.1	49	116	91.68	1.69	20	
Vanadium	136.2	1.0	125	26.8	87.6	65	122	132.6	2.73	20	
Zinc	157.9	1.0	125	71.88	68.8	36	140	155.2	1.74	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

Advanced Technology Laboratories
3275 Walnut Avenue Signal Hill, CA 90755 Tel: 562 989-4045 Fax: 562 989-4040

CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-21084	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 1/27/2005	Run ID: AA1_050128A
Client ID: ZZZZZ	Batch ID: 21084	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 1/28/2005	SeqNo: 672271

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

Sample ID: LCS-21084	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 1/27/2005	Run ID: AA1_050128A
Client ID: ZZZZZ	Batch ID: 21084	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 1/28/2005	SeqNo: 672270

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.896	0.10	2.08	0	91.2	80	120	0	0		

Sample ID: 073856-006GMS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 1/27/2005	Run ID: AA1_050128A
Client ID: T7-2-4	Batch ID: 21084	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 1/28/2005	SeqNo: 672268

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.8399	0.10	0.83	0.04394	95.9	62	146	0	0		

Sample ID: 073856-006GMSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 1/27/2005	Run ID: AA1_050128A
Client ID: T7-2-4	Batch ID: 21084	TestNo: EPA 7471A	(EPA 7471)	Analysis Date: 1/28/2005	SeqNo: 672269

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.804	0.10	0.83	0.04394	91.6	62	146	0.8399	4.37	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: **E012705MB** SampType: **MBLK** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050127A**
Client ID: **ZZZZZ** Batch ID: **E05VS025** TestNo: **EPA 8015B(M** Analysis Date: **1/27/2005** SeqNo: **672224**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	74.51	0	100	0	74.5	27	135	0	0		

Sample ID: **E012805MB** SampType: **MBLK** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050128A**
Client ID: **ZZZZZ** Batch ID: **E05VS026** TestNo: **EPA 8015B(M** Analysis Date: **1/28/2005** SeqNo: **672293**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	71.87	0	100	0	71.9	27	135	0	0		

Sample ID: **E012705LC** SampType: **LCS** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050127A**
Client ID: **ZZZZZ** Batch ID: **E05VS025** TestNo: **EPA 8015B(M** Analysis Date: **1/27/2005** SeqNo: **672231**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.932	1.0	5	0	98.6	76	116	0	0		
Surr: Bromofluorobenzene (FID)	88.72	0	100	0	88.7	27	135	0	0		

Sample ID: **E012805LC** SampType: **LCS** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050128A**
Client ID: **ZZZZZ** Batch ID: **E05VS026** TestNo: **EPA 8015B(M** Analysis Date: **1/28/2005** SeqNo: **672338**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.099	1.0	5	0	102	76	116	0	0		
Surr: Bromofluorobenzene (FID)	85.38	0	100	0	85.4	27	135	0	0		

Sample ID: **073831-001AMS** SampType: **MS** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050127A**
Client ID: **ZZZZZ** Batch ID: **E05VS025** TestNo: **EPA 8015B(M** Analysis Date: **1/27/2005** SeqNo: **672226**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.758	1.0	5	0	95.2	27	137	0	0		

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: **073831-001AMS** SampType: **MS** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050127A**
Client ID: **ZZZZZ** Batch ID: **E05VS025** TestNo: **EPA 8015B(M** Analysis Date: **1/27/2005** SeqNo: **672226**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Bromofluorobenzene (FID)	88.99	0	100	0	89	27	135	0	0		

Sample ID: **E012805MB-MS** SampType: **MS** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050128A**
Client ID: **ZZZZZ** Batch ID: **E05VS026** TestNo: **EPA 8015B(M** Analysis Date: **1/28/2005** SeqNo: **672297**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	5.218	1.0	5	0	104	27	137	0	0		
Surr: Bromofluorobenzene (FID)	98.37	0	100	0	98.4	27	135	0	0		

Sample ID: **073831-001AMSD** SampType: **MSD** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050127A**
Client ID: **ZZZZZ** Batch ID: **E05VS025** TestNo: **EPA 8015B(M** Analysis Date: **1/27/2005** SeqNo: **672227**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.762	1.0	5	0	95.2	27	137	4.758	0.0840	30	
Surr: Bromofluorobenzene (FID)	90.49	0	100	0	90.5	27	135	0	0	0	

Sample ID: **E012805MB-MSD** SampType: **MSD** TestCode: **8015_S_G 50** Units: **mg/Kg** Prep Date: Run ID: **GC2_050128A**
Client ID: **ZZZZZ** Batch ID: **E05VS026** TestNo: **EPA 8015B(M** Analysis Date: **1/28/2005** SeqNo: **672302**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.83	1.0	5	0	96.6	27	137	5.218	7.72	30	
Surr: Bromofluorobenzene (FID)	85.45	0	100	0	85.5	27	135	0	0	0	

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CLIENT: Ninyo & Moore
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050127MB1** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050127A**
Client ID: **ZZZZZ** Batch ID: **R05VS020** TestNo: **EPA 8260B** Analysis Date: **1/27/2005** SeqNo: **672069**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									

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Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050127MB1** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050127A**
Client ID: **ZZZZZ** Batch ID: **R05VS020** TestNo: **EPA 8260B** Analysis Date: **1/27/2005** SeqNo: **672069**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
Methylene chloride	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	48.78	5.0	50	0	97.6	61	164	0	0		
Surr: 4-Bromofluorobenzene	47.21	5.0	50	0	94.4	80	123	0	0		
Surr: Dibromofluoromethane	50.98	5.0	50	0	102	78	141	0	0		

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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050127MB1** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050127A**
Client ID: **ZZZZZ** Batch ID: **R05VS020** TestNo: **EPA 8260B** Analysis Date: **1/27/2005** SeqNo: **672069**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	49.03	5.0	50	0	98.1	86	123	0	0		

Sample ID: **R050128MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050128MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	5.0									
Methylene chloride	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									

Qualifiers:
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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050128MB2** SampType: **MBLK** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672277**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	44.68	5.0	50	0	89.4	61	164	0	0		
Surr: 4-Bromofluorobenzene	47.44	5.0	50	0	94.9	80	123	0	0		
Surr: Dibromofluoromethane	47.97	5.0	50	0	95.9	78	141	0	0		
Surr: Toluene-d8	49.21	5.0	50	0	98.4	86	123	0	0		

Sample ID: **R050127LC1** SampType: **LCS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050127A**
Client ID: **ZZZZZ** Batch ID: **R05VS020** TestNo: **EPA 8260B** Analysis Date: **1/27/2005** SeqNo: **672065**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	88.26	5.0	100	0	88.3	63	127	0	0		
Benzene	94.64	5.0	100	0	94.6	88	126	0	0		
Chlorobenzene	98.03	5.0	100	0	98	91	133	0	0		
Toluene	94.19	5.0	100	0	94.2	87	126	0	0		
Trichloroethene	94.76	5.0	100	0	94.8	86	134	0	0		
Surr: 1,2-Dichloroethane-d4	46.42	5.0	50	0	92.8	61	164	0	0		
Surr: 4-Bromofluorobenzene	50.3	5.0	50	0	101	80	123	0	0		
Surr: Dibromofluoromethane	48.69	5.0	50	0	97.4	78	141	0	0		
Surr: Toluene-d8	50.69	5.0	50	0	101	86	123	0	0		

Sample ID: **R050128LC1** SampType: **LCS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	82.27	5.0	100	0	82.3	63	127	0	0		
Benzene	89.58	5.0	100	0	89.6	88	126	0	0		
Chlorobenzene	94.71	5.0	100	0	94.7	91	133	0	0		
Toluene	89.63	5.0	100	0	89.6	87	126	0	0		

Qualifiers:
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CLIENT: Ninyo & Moore
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ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050128LC1** SampType: **LCS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672274**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene	90.68	5.0	100	0	90.7	86	134	0	0		
Surr: 1,2-Dichloroethane-d4	45.43	5.0	50	0	90.9	61	164	0	0		
Surr: 4-Bromofluorobenzene	49.99	5.0	50	0	100	80	123	0	0		
Surr: Dibromofluoromethane	47.92	5.0	50	0	95.8	78	141	0	0		
Surr: Toluene-d8	49.97	5.0	50	0	99.9	86	123	0	0		

Sample ID: **R050127MB1MS** SampType: **MS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050127A**
Client ID: **ZZZZZ** Batch ID: **R05VS020** TestNo: **EPA 8260B** Analysis Date: **1/27/2005** SeqNo: **672067**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	87.65	5.0	100	0	87.6	51	128	0	0		
Benzene	95.66	5.0	100	0	95.7	65	136	0	0		
Chlorobenzene	100.5	5.0	100	0	100	52	152	0	0		
Toluene	95.68	5.0	100	0	95.7	56	142	0	0		
Trichloroethene	96.16	5.0	100	0	96.2	54	155	0	0		
Surr: 1,2-Dichloroethane-d4	46.64	5.0	50	0	93.3	61	164	0	0		
Surr: 4-Bromofluorobenzene	50.21	5.0	50	0	100	80	123	0	0		
Surr: Dibromofluoromethane	48.5	5.0	50	0	97	78	141	0	0		
Surr: Toluene-d8	50.08	5.0	50	0	100	86	123	0	0		

Sample ID: **R050128MB1MS** SampType: **MS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672275**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	90.1	5.0	100	0	90.1	51	128	0	0		
Benzene	101.7	5.0	100	0	102	65	136	0	0		
Chlorobenzene	104.4	5.0	100	0	104	52	152	0	0		
Toluene	101	5.0	100	0	101	56	142	0	0		
Trichloroethene	104.3	5.0	100	0	104	54	155	0	0		
Surr: 1,2-Dichloroethane-d4	42.65	5.0	50	0	85.3	61	164	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050128MB1MS** SampType: **MS** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672275**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	49.84	5.0	50	0	99.7	80	123	0	0		
Surr: Dibromofluoromethane	46.33	5.0	50	0	92.7	78	141	0	0		
Surr: Toluene-d8	50.48	5.0	50	0	101	86	123	0	0		

Sample ID: **R050127MB1MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050127A**
Client ID: **ZZZZZ** Batch ID: **R05VS020** TestNo: **EPA 8260B** Analysis Date: **1/27/2005** SeqNo: **672068**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	99.16	5.0	100	0	99.2	51	128	87.65	12.3	30	
Benzene	106.2	5.0	100	0	106	65	136	95.66	10.5	30	
Chlorobenzene	114.2	5.0	100	0	114	52	152	100.5	12.8	30	
Toluene	105.8	5.0	100	0	106	56	142	95.68	10.1	30	
Trichloroethene	107.5	5.0	100	0	108	54	155	96.16	11.1	30	
Surr: 1,2-Dichloroethane-d4	46.2	5.0	50	0	92.4	61	164	0	0	30	
Surr: 4-Bromofluorobenzene	51.18	5.0	50	0	102	80	123	0	0	30	
Surr: Dibromofluoromethane	49	5.0	50	0	98	78	141	0	0	30	
Surr: Toluene-d8	49.63	5.0	50	0	99.3	86	123	0	0	30	

Sample ID: **R050128MB1MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	94.93	5.0	100	0	94.9	51	128	90.1	5.22	30	
Benzene	106.5	5.0	100	0	107	65	136	101.7	4.66	30	
Chlorobenzene	111.6	5.0	100	0	112	52	152	104.4	6.64	30	
Toluene	105.8	5.0	100	0	106	56	142	101	4.63	30	
Trichloroethene	109.6	5.0	100	0	110	54	155	104.3	5.01	30	
Surr: 1,2-Dichloroethane-d4	43.82	5.0	50	0	87.6	61	164	0	0	30	
Surr: 4-Bromofluorobenzene	49.7	5.0	50	0	99.4	80	123	0	0	30	
Surr: Dibromofluoromethane	46.56	5.0	50	0	93.1	78	141	0	0	30	

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: **R050128MB1MSD** SampType: **MSD** TestCode: **8260_S_5035** Units: **µg/Kg** Prep Date: Run ID: **MS3_050128A**
Client ID: **ZZZZZ** Batch ID: **R05VS021** TestNo: **EPA 8260B** Analysis Date: **1/28/2005** SeqNo: **672276**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Toluene-d8	50.3	5.0	50	0	101	86	123	0	0	30	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
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S - Spike Recovery outside accepted recovery limits
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **MB-21085** SampType: **MBLK** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **1/27/2005** Run ID: **MS6_050127B**
Client ID: **ZZZZZ** Batch ID: **21085** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **1/27/2005** SeqNo: **672153**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	330									
Acenaphthene	ND	330									
Acenaphthylene	ND	330									
Anthracene	ND	330									
Benzo(a)anthracene	ND	330									
Benzo(a)pyrene	ND	330									
Benzo(b)fluoranthene	ND	330									
Benzo(g,h,i)perylene	ND	330									
Benzo(k)fluoranthene	ND	330									
Chrysene	ND	330									
Dibenz(a,h)anthracene	ND	330									
Fluoranthene	ND	330									
Fluorene	ND	330									
Indeno(1,2,3-cd)pyrene	ND	330									
Naphthalene	ND	330									
Phenanthrene	ND	330									
Pyrene	ND	330									
Surr: 1,2-Dichlorobenzene-d4	2821	0	3330	0	84.7	37	103	0	0		
Surr: 2-Fluorobiphenyl	3014	0	3330	0	90.5	37	113	0	0		
Surr: 4-Terphenyl-d14	3768	0	3330	0	113	46	123	0	0		
Surr: Nitrobenzene-d5	3222	0	3330	0	96.8	39	108	0	0		

Sample ID: **LCS-21085** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **1/27/2005** Run ID: **MS6_050127B**
Client ID: **ZZZZZ** Batch ID: **21085** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **1/28/2005** SeqNo: **672154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2823	330	3330	0	84.8	64	95	0	0		
Pyrene	3159	330	3330	0	94.9	63	100	0	0		
Surr: 1,2-Dichlorobenzene-d4	2552	0	3330	0	76.6	37	103	0	0		
Surr: 2-Fluorobiphenyl	2789	0	3330	0	83.8	37	113	0	0		

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: 8270_S_FULL

Sample ID: **LCS-21085** SampType: **LCS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **1/27/2005** Run ID: **MS6_050127B**
Client ID: **ZZZZZ** Batch ID: **21085** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **1/28/2005** SeqNo: **672154**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 4-Terphenyl-d14	3271	0	3330	0	98.2	46	123	0	0		
Surr: Nitrobenzene-d5	3020	0	3330	0	90.7	39	108	0	0		

Sample ID: **073856-004GMS** SampType: **MS** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **1/27/2005** Run ID: **MS6_050127B**
Client ID: **T6-2-2** Batch ID: **21085** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **1/28/2005** SeqNo: **672155**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3156	330	3330	0	94.8	64	95	0	0		
Pyrene	3252	330	3330	0	97.7	63	100	0	0		
Surr: 1,2-Dichlorobenzene-d4	2778	0	3330	0	83.4	37	103	0	0		
Surr: 2-Fluorobiphenyl	3141	0	3330	0	94.3	37	113	0	0		
Surr: 4-Terphenyl-d14	3673	0	3330	0	110	46	123	0	0		
Surr: Nitrobenzene-d5	3333	0	3330	0	100	39	108	0	0		

Sample ID: **073856-004GMSD** SampType: **MSD** TestCode: **8270_S_FUL** Units: **µg/Kg** Prep Date: **1/27/2005** Run ID: **MS6_050127B**
Client ID: **T6-2-2** Batch ID: **21085** TestNo: **EPA 8270C** **(EPA 3550B)** Analysis Date: **1/28/2005** SeqNo: **672156**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3037	330	3330	0	91.2	64	95	3156	3.84	30	
Pyrene	3169	330	3330	0	95.2	63	100	3252	2.59	30	
Surr: 1,2-Dichlorobenzene-d4	2671	0	3330	0	80.2	37	103	0	0	0	
Surr: 2-Fluorobiphenyl	3003	0	3330	0	90.2	37	113	0	0	0	
Surr: 4-Terphenyl-d14	3600	0	3330	0	108	46	123	0	0	0	
Surr: Nitrobenzene-d5	3203	0	3330	0	96.2	39	108	0	0	0	

Qualifiers:
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Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

TestCode: HC_S_SVOA

Sample ID: **MB-21081**	SampType: **MBLK**	TestCode: **HC_S_SVOA**	Units: **mg/Kg**	Prep Date: **1/27/2005**	Run ID: **GC8_050127A**
Client ID: **ZZZZZ**	Batch ID: **21081**	TestNo: **EPA 8015B**	**(LUFT)**	Analysis Date: **1/28/2005**	SeqNo: **672164**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C12	ND	10									
T/R Hydrocarbons: C13-C15	ND	10									
T/R Hydrocarbons: C16-C22	ND	10									
T/R Hydrocarbons: C23-C32	ND	10									
T/R Hydrocarbons: >C32	ND	10									

Qualifiers:
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J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
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B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO- Surrogate dilute out
H - Sample exceeded holding time

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Advanced Technology Laboratories

Date: *28-Jan-05*

CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

BatchID: 21081

Sample ID: **LCS-21081** SampType: **LCS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672015**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	934.9	10	1000	0	93.5	73	125	0	0		
Surr: p-Terphenyl	86.66	0	80	0	108	60	129	0	0		

Sample ID: **073831-001AMS** SampType: **MS** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672016**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	960.9	10	1000	9.41	95.1	70	128	0	0		
Surr: p-Terphenyl	88.12	0	80	0	110	60	129	0	0		

Sample ID: **073831-001AMSD** SampType: **MSD** TestCode: **8015_S_DM** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672017**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	963.2	10	1000	9.41	95.4	70	128	960.9	0.245	30	
Surr: p-Terphenyl	87.19	0	80	0	109	60	129	0	0	30	

Sample ID: **LCS-21081** SampType: **LCS** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672192**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	934.9	10	1000	0	93.5	73	125	0	0		
Surr: p-Terphenyl	86.66	0	80	0	108	60	129	0	0		

Sample ID: **073831-001AMS** SampType: **MS** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike/Surrogate outside limits due to matrix interference; DO - Surrogate diluted out; J - Analyte detected below quantitation limits; B - Analyte detected in the associated Method Blank; H - Sample exceeded holding time; R - RPD outside accepted recovery limits

Calculations are based on raw values

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CLIENT: Ninyo & Moore
Work Order: 073856
Project: Bloomfield II, 205372005

ANALYTICAL QC SUMMARY REPORT

BatchID: 21081

Sample ID: **073831-001AMS** SampType: **MS** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672193**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	960.9	10	1000	9.41	95.1	70	128	0	0		
Surr: p-Terphenyl	88.12	0	80	0	110	60	129	0	0		

Sample ID: **073831-001AMSD** SampType: **MSD** TestCode: **8015_S_DSL** Units: **mg/Kg** Prep Date: **1/27/2005** Run ID: **GC8_050127A**
Client ID: **ZZZZZ** Batch ID: **21081** TestNo: **EPA 8015B(M (LUFT)** Analysis Date: **1/28/2005** SeqNo: **672194**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	963.2	10	1000	9.41	95.4	70	128	960.9	0.245	30	
Surr: p-Terphenyl	87.19	0	80	0	109	60	129	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
R - RPD outside accepted recovery limits
S - Spike/Surrogate outside limits due to matrix interference
B - Analyte detected in the associated Method Blank
Calculations are based on raw values
DO - Surrogate diluted out
H - Sample exceeded holding time

CHAIN OF CUSTODY RECORD

Pg 1 of ____

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90807
(562) 989-4045 • FAX (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: ____

Logged By: ____ Date: 1/27/05 Time: ____

Method of Transport: Walk-in ☑ Courier ☐ UPS ☐ FED. EXP. ☐ ATL ☐

Sample Condition Upon Receipt:
1. CHILLED Y☑ N☐
2. HEADSPACE (VOA) Y☐ N☐
3. CONTAINER INTACT Y☑ N☐
4. SEALED Y☐ N☑
5. # OF SPLS MATCH COC Y☑ N☐
6. PRESERVED Y☐ N☑

Client: Ninyo & Moore
Attn: Paul Roberts
Address: 475 Goddard Suite 200
City: Irvine State: CA Zip Code: 92618
TEL: (949) 753-7070
FAX: (949) 753-7071

Project Name: Bloomfield II
Project #: 205372005
Sampler: (Printed Name) Paul Roberts (Signature) Paul Roberts

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Darren P. Burgh	1/27/05	4:00 pm	M'	1/27/05	4:19

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Paul Roberts (Print Name) 1-27-05 (Date)
Signature

Send Report To: Attn: ____ Co: ____ Address ____ City ____ State ____ Zip ____

Bill To: Attn: ____ Co: ____ Address ____ City ____ State ____ Zip ____

Special Instructions/Comments:

Unless otherwise requested, all samples will be disposed 45 days after receipt.

Sample Archive/Disposal:
☐ Laboratory Standard
☐ Other ____
☐ Return To: ____

* $10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL.

Circle or Add Analysis(es) Requested: 8081 / 8082 (Pesticides/PCB-GC); 8260 (Volatiles-GC/MS); 625 / 8270 (BNA-GC/MS); Metals-Total (CAC-6010 / 7000); 8015M TPH/BTEX (COMBINATION); 8015M TPH/D (Diesel-GC); TPHg 8015; TPHd C10-C22 8015; VOCs 8260; PNA 8270; Title 22 metals

CIRCLE APPROPRIATE MATRIX: SOLID • SOIL • SLUDGE; OIL • SOLVENT • LIQUID; WATER • WASTEWATER; DRINKING WATER; AIR; WIPE • FILTER; OTHER

PRESERVATION

QA/QC: RTNE ☐ RWQCB ☐ WIP ☐ NAVY ☐ CT ☐ OTHER ____

ITEM	LAB USE ONLY: Batch #: / Lab No.	Sample Description: Sample I.D.	Date	Time	8081 / 8082 (Pesticides/PCB-GC)	8260 (Volatiles-GC/MS)	625 / 8270 (BNA-GC/MS)	Metals-Total (CAC-6010 / 7000)	8015M TPH/BTEX (COMBINATION)	8015M TPH/D (Diesel-GC)	TPHg 8015	TPHd C10-C22 8015	VOCs 8260	PNA 8270	Title 22 metals	SOLID • SOIL • SLUDGE	OIL • SOLVENT • LIQUID	WATER • WASTEWATER	DRINKING WATER	AIR	WIPE • FILTER	OTHER	TAT	Container(s) #	Container(s) Type	PRESERVATION	REMARKS
	073856-01	T5-1-9	1/27								X	X	X	X	X								B	8	V J		
	-02	T5-2-9	↓								X	X	X	X	X								↓	↓	↓ ↓		
	-03	T6-1-2									X	X	X	X	X												
	-04	T6-2-2									X	X	X	X	X												
	-05	T7-1-4									X	X	X	X	X												
	-06	T7-2-4	↓								X	X	X	X	X								↓	↓	↓ ↓		

• TAT starts 8 a.m. following day if samples received after 5 p.m.

TAT: A= Overnight ≤ 24 hr; B= Emergency Next workday; C= Critical 2 Workdays; D= Urgent 3 Workdays; E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=Hcl N=HNO_3 S=H_2SO_4 C=4°C Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

[redacted]IBUT[redacted]/white [redacted]port, [redacted]v to f[redacted] Pink t[redacted]mitter[redacted]

APPENDIX F

DOCUMENTATION ASSOCIATED WITH THE HUMAN HEALTH SCREENING EVALUATION

H'	2.00E-02	dimensionless	known
ρ_b	1.85	cm3/gm	assumed
θ_w	0.1	dimensionless	assumed
K_d	18.37	gm/cm3	known
θ_a	0.2	dimensionless	assumed
K_{oc}	1837	gm/cm3	calc
f_{oc}	0.01	dimensionless	assumed
ω	0.15		assumed

Sample	C_{wet} (mg/kg)	C_t (mg/kg)	Depth (ft)	C_{sg} (mg/l)	C_{sg} (ug/m3)	Cancer	Non-cancer
POL2-25	3	3.53	25	3.83E-06	3.83E+00	6.20E-09	1.40E-04
T1-1	9.3	10.94	2	1.19E-05	1.19E+01	1.80E-07	4.20E-03
T5-1	17	20.00	9	2.17E-05	2.17E+01	9.30E-08	2.10E-03

SG-SCREEN
?A Version 2.0; 04/

Reset to Defaults

DTSC / HERD
Version 2.0-mod4; 8/23/04
Default for Unclassified Soil

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
91203	2.17E+01			Naphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	274.32	24	SC		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
SC	1.85	0.3	0.1	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
5.90E-02	7.50E-06	4.82E-04	25	10,373	491.14	748.40	3.4E-05	3.0E-03	128.18

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
259.32	0.200	-0.093	1.78E-09	#NUM!	#NUM!	4,000	2.17E+01	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	12,768	4.48E-04	1.84E-02	1.80E-04	3.09E-03	259.32

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	2.17E+01	1.25	8.33E+01	3.09E-03	5.00E+03	2.87E+23	3.07E-04	6.67E-03

Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
3.4E-05	3.0E-03

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
9.3E-08	2.1E-03

MESSAGE SUMMARY BELOW:

END

SG-SCREEN
PA Version 2.0; 04

Reset to Defaults

DTSC / HERD
Version 2.0-mod4; 8/23/04
Default for Unclassified Soil

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
91203	1.19E+01			Naphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	60.96	24	SC		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, ρ_B^A (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
SC	1.85	0.3	0.1	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H ($atm\text{-}m^3/mol$)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Unit risk factor, URF $(\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
5.90E-02	7.50E-06	4.82E-04	25	10,373	491.14	748.40	3.4E-05	3.0E-03	128.18

END

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
45.96	0.200	-0.093	1.78E-09	#NUM!	#NUM!	4,000	1.19E+01	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	12,768	4.48E-04	1.84E-02	1.80E-04	3.09E-03	45.96

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	1.19E+01	1.25	8.33E+01	3.09E-03	5.00E+03	2.87E+23	1.10E-03	1.31E-02

Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
3.4E-05	3.0E-03

END

RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
1.8E-07	4.2E-03

MESSAGE SUMMARY BELOW:

END

SG-SCREEN
?A Version 2.0; 04/

Reset to Defaults

DTSC / HERD
Version 2.0-mod4; 8/23/04
Default for Unclassified Soil

Soil Gas Concentration Data

ENTER Chemical CAS No. (numbers only, no dashes)	ENTER Soil gas conc., C_g ($\mu g/m^3$)	OR	ENTER Soil gas conc., C_g (ppmv)	Chemical
91203	3.83E+00			Naphthalene

MORE ↓

ENTER Depth below grade to bottom of enclosed space floor, L_F (15 or 200 cm)	ENTER Soil gas sampling depth below grade, L_s (cm)	ENTER Average soil temperature, T_S (°C)	ENTER Vadose zone SCS soil type (used to estimate soil vapor permeability)	OR	ENTER User-defined vadose zone soil vapor permeability, k_v (cm^2)
15	762	24	SC		

MORE ↓

ENTER Vandose zone SCS soil type (Lookup Soil Parameters)	ENTER Vadose zone soil dry bulk density, ρ_b^A (g/cm^3)	ENTER Vadose zone soil total porosity, n^V (unitless)	ENTER Vadose zone soil water-filled porosity, θ_w^V (cm^3/cm^3)	ENTER Average vapor flow rate into bldg. (Leave blank to calculate) Q_{soil} (L/m)
SC	1.85	0.3	0.1	5

MORE ↓

ENTER Averaging time for carcinogens, AT_C (yrs)	ENTER Averaging time for noncarcinogens, AT_{NC} (yrs)	ENTER Exposure duration, ED (yrs)	ENTER Exposure frequency, EF (days/yr)
70	30	30	350

END

CHEMICAL PROPERTIES SHEET

Diffusivity in air, D_a (cm^2/s)	Diffusivity in water, D_w (cm^2/s)	Henry's law constant at reference temperature, H (atm-m^3/mol)	Henry's law constant reference temperature, T_R (°C)	Enthalpy of vaporization at the normal boiling point, $\Delta H_{v,b}$ (cal/mol)	Normal boiling point, T_B (°K)	Critical temperature, T_C (°K)	Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)	Molecular weight, MW (g/mol)
5.90E-02	7.50E-06	4.82E-04	25	10,373	491.14	748.40	3.4E-05	3.0E-03	128.18

END

TPS TECHNOLOGIES INC.
12328 Hibiscus Ave. Adelanto, CA 92301

ADE 120067

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # 007 24606 001 02/10/05

Generator Site Information
PLEGEL OIL COMPANY LEASE

12600 FLORENCE AVE

SANTA FE SPRINGS, CA 00000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12328 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

JPROVAN IN ----> 10:47:00am

JPROVAN OUT ---> 10:56:58am

Truck Number 100
Trailer Number DT3

	LBS	TONS	
Gross Wt:	72,180	36.09	Manual Wt
Tare Wt:	32,500	16.25	Manual Wt
NET WT:	39,680	19.84	

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: RELIABLE SOLID- MIGUEL

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	001

Generator and/or Consultant

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No.: Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800)862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760)246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park 90621 CA	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name:	Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
Rick Schlesinger		[signature]	03	15	05

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Miguel Cuevas	[signature]	3	16	05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
D. JEFFREY/J. PROVANSAL	

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.
12328 Hibiscus Ave. Adelanto, CA 92301

ADE 120069

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # A07 26608 012 05/16/07

Generator Site Information
PLEGEL OIL COMPANY LEASE

12600 FLORENCE AVE

SANTA FE SPRINGS, CA 00000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12328 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

JPROVAN IN ---> 10:59:16am

JPROVAN OUT ---> 11:05:44am

Truck Number 93
Trailer Number 93

	LBS	TONS	
Gross Wt:	68,000	34.00	Manual Wt
Tare Wt:	30,960	15.45	Manual Wt
NET WT:	37,040	18.51	

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: CLIFTON C LEE RON

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	012

Generator and/or Consultant

Generator's Name and Billing Address:	Generator's Phone #:	Generator's US EPA ID No.
BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Person to Contact:	
	FAX#:	Customer Account Number with TPS: 7BLOOMF

Consultant's Name and Billing Address:	Consultant's Phone #:	
RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	(714) 522-6440	
	Person to Contact: SANDRA BROGG	
	FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572

Generation Site (Transport from): *(name & address)*	Site Phone #:	BTEX Levels
PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Person to Contact:	TPH Levels
	FAX#:	AVG. Levels

Designated Facility (Transport to): *(name & address)*	Facility Phone #:	Facility Permit Numbers
TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	(800) 862-8001	
	Person to Contact: DELLENA JEFFREY	
	FAX#: (760) 246-8004	

Transporter Name and Mailing Address:	Transporter's Phone #:	Transporter's US EPA ID No.
Reliable Equipment 8331 Commonwealth Buena Park 90621 CA	Person to Contact:	Transporter's DOT No.:
	FAX#:	Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
RONALD DLee	RonaldDLee	3	16	05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
D. JEFFREY / J. PROVANSAL	

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.
12328 Hibiscus Ave. Adelanto, CA 92301

ADE 120070

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # A07 24606 011 03/16/05

Generator Site Information
PLEDGL OIL COMPANY LEASE

12600 FLORENCE AVE

SANTA FE SPRINGS, CA 00000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12328 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

			LBS	TONS	
JPROVAN IN --->	10:38:53am	Gross Wt:	72,180	36.09	Manual Wt
JPROVAN OUT --->	11:07:18am	Tare Wt.	32,460	16.23	Manual Wt
Truck Number	002	NET WT:	39,720	19.86	
Trailer Number	000				

Commodity: Non Haz - Solids

Driver: On Gross and Tare Transporter: RR PENIX

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	011

Generator and/or Consultant

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No.: Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800)862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760)246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park CA 90621	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐ Kirk S Hegel | Signature and date: | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Robert R. Penix | Signature and date: | Month 3 | Day 16 | Year 05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY/J. PROVANSAL | Signature and date:

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.
12328 Hibiscus Ave. Adelanto, CA 92301

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # A07 24606 007 03/16/05

Generator Site Information
PLEGEL OIL COMPANY LEASE

12600 FLORENCE AVE

SANTA FE SPRINGS, CA 00000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12328 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

JPROVAN IN ---> 11:19:19am

JPROVAN OUT ---> 11:26:28am

Truck Number 007
Trailer Number 12

	LBS	TONS	
Gross Wt:	72,700	36.35	Manual Wt
Tare Wt:	35,380	17.69	Manual Wt
NET WT:	37,320	18.66	

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: CTE- PHIL

TPS Technologies Soil Recycling

Non-Hazardous Soils

Generator and/or Consultant

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	007

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No.: Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800)862-8001 Person to Contact: DELLENA, JEFFREY FAX#: (760)246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park 90621 CA	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Rick Schwartz Generator ☐ Consultant ☐ Signature and date: [signature] Month 03 Day 15 Year 05

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: PHIL CLAYPOOL Signature and date: [signature] Month 3 Day 16 Year 05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY/J. PROVANSAL Signature and date:

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.
12328 Hibiscus Ave. Adelanto, CA 92301

ADL 120001

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # A07 24606 000 [illegible]

Generator Site Information
PLEGEL OIL COMPANY LEASE

12600 FLORENCE AVE

SANTA FE SPRINGS, CA 90005 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12328 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

				LBS	TONS	
JPROVAN	IN --->	12:46:49pm	Gross Wt:	72,480	36.24	Manual Wt
JPROVAN	OUT -->	12:46:04pm	Tare Wt:	33,380	16.69	Manual Wt
Truck Number		125	NET WT:	39,100	19.55	
Trailer Number		DT12				

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: HRH

Transporter's DOT No:

TPS Technologies Soil Recycling
Non-Hazardous Soils

Generator and/or Consultant

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	009

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No.: Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800)862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760)246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonlth Buena Park 90621 CA	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Rick Scherrer Generator ☐ Consultant ☐ | Signature and date: [illegible] | Month | Day | Year

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Mike Smiley | Signature and date: Mike Smiley | Month 3 | Day 16 | Year 05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY/J. PROVANSAL | Signature and date:

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.

12328 Hibiscus Ave. Adelanto, CA 92301

ADE 120119

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # [illegible] L4606 [illegible] 03/17/05

Generator Site Information
PLEGEL OIL COMPANY LEASE

12600 FLORENCE AVE

SANTA FE SPRINGS, CA 00000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12326 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

			LBS	TONS	
DJEFFREY IN --->	09:00:43am	Gross Wt:	70,100	35.05	Manual Wt
DJEFFREY OUT --->	09:01:57am	Tare Wt:	33,300	16.65	Manual Wt
Truck Number	125	NET WT:	36,820	18.41	
Trailer Number	dt12				

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: HRH TRK: - MIKE

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	003

Generator and/or Consultant

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No. Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800)862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760)246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park CA 90621	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
Rick Scheckel	[signature]	12	15	05

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Mike Smiley	[signature]	3	17	05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
D. JEFFREY / J. PROVANSAL	

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.

12328 Hibiscus Ave. Adelanto, CA 92301

ADE 120120

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # 487 [illegible] 002 [illegible]

Generator Site Information
PLEGEL OIL COMPANY LEASE

12500 FLORENCE AVE

SANTA FE SPRINGS, CA 90000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES

12328 HIBISCUS

ADELANTO, CA 92301 USA

BY DEPUTY:

			LBS	TONS	
DJEFFREY IN --->	08:06:05am	Gross Wt:	73,430	36.73	Manual Wt
DJEFFREY OUT --->	08:06:24am	Tare Wt:	32,460	16.23	Manual Wt
Truck Number	100	NET WT:	41,000	20.50 ✓	
Trailer Number	DT3				

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: RELIABLE EQUIPMENT - MIGUEL

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	002

Generator and/or Consultant

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No. Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	 Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800) 862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760) 246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park 90621 CA	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: [illegible] Generator ☐ Consultant ☐ Signature and date: [illegible] Month 03 Day [illegible] Year [illegible]

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: Miguel Cuevas Signature and date: [illegible] Month 3 Day 17 Year 05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY / J. PROVANSAL Signature and date:

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.

12328 Hibiscus Ave., Adelanto, CA 92301

ADE 120161

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # A07 24606 008 03/17/05

Generator Site Information	WEIGHMASTER Weighed At:
PLEBEL OIL COMPANY LEASE	TPS TECHNOLOGIES
12600 FLORENCE AVE	12328 HIBISCUS
SANTA FE SPRINGS, CA 00000 USA	ADELANTO, CA 92301 USA

BY DEPUTY:

JPROVAN IN ---> 03:30:22pm

JPROVAN OUT ---> 03:31:38pm

Truck Number 125

Trailer Number dt12

	LBS	TONS	
Gross Wt:	77,700	38.85	Manual Wt
Tare Wt:	33,380	16.69	Manual Wt
NET WT:	44,320	22.16	

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: MRH

TPS Technologies Soil Recycling

Non-Hazardous Soils

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	008

Generator and/or Consultant

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No. Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG. FAX#: (714) 522-8126	 Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800) 862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760) 246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park 90621 CA	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Generator ☐ Consultant ☐	Signature and date:	Month	Day	Year
Rick Schauler	[signature]	03	15	05

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name:	Signature and date:	Month	Day	Year
Anthony Silva	[signature]	3	16	05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name:	Signature and date:
D. JEFFREY / J. PROVANSAL	

GENERATOR/CONSULTANTS COPY

TPS TECHNOLOGIES INC.

12328 Hibiscus Ave. Adelanto, CA 92301

ADE 120162

WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

Manifest # A07 24600 010 03/17/05

Generator Site Information
MLEBEL OIL COMPANY LEASE
12600 FLORENCE AVE
SANTA FE SPRINGS, CA 00000 USA

WEIGHMASTER Weighed At:
TPS TECHNOLOGIES
12328 HIBISCUS
ADELANTO, CA 92301 USA

BY DEPUTY:

			LBS	TONS	
JPROVAN	IN --->	03:33:28pm	Gross Wt:	73,580	36.79 Manual Wt
JPROVAN	OUT --->	03:33:46pm	Tare Wt:	32,500	16.25 Manual Wt
Truck Number		100	NET WT:	41,080	20.54
Trailer Number		DT3			

Commodity: Non Haz - Solids

Driver On Gross and Tare Transporter: RELIABLE EQUIP

TPS Technologies Soil Recycling

Non-Hazardous Soils

Generator and/or Consultant

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Facility #:	Given by TPS:	Load #
	Transporter		A07	24606	010

Generator's Name and Billing Address: BLOOMFIELD BROTHERS II, LLC 18802 BORDEN AVE IRVINE, CA 92612 USA	Generator's Phone #: Person to Contact: FAX#:	Generator's US EPA ID No.: Customer Account Number with TPS: 7BLOOMF
Consultant's Name and Billing Address: RELIABLE EQUIPMENT 8331 COMMONWEALTH AVE BUENA PARK, CA 90621 USA	Consultant's Phone #: (714) 522-6440 Person to Contact: SANDRA BROGG FAX#: (714) 522-8126	Customer Account Number with TPS: 7004572
Generation Site (Transport from): *(name & address)* PLEGEL OIL COMPANY LEASE 12600 FLORENCE AVE SANTA FE SPRINGS, CA 00000 USA	Site Phone #: Person to Contact: FAX#:	BTEX Levels TPH Levels AVG. Levels
Designated Facility (Transport to): *(name & address)* TPS TECHNOLOGIES 12328 HIBISCUS ADELANTO, CA 92301 USA	Facility Phone #: (800)862-8001 Person to Contact: DELLENA JEFFREY FAX#: (760)246-8004	Facility Permit Numbers
Transporter Name and Mailing Address: Reliable Equipment 8331 Commonwealth Buena Park 90621 CA	Transporter's Phone #: Person to Contact: FAX#:	Transporter's US EPA ID No.: Transporter's DOT No.: Customer Account Number with TPS:

Description of Soil	Moisture Content	Contaminated by:	Approx. Qty:	Description of Delivery	Gross Weight	Tare Weight	Net Weight
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					
Sand ☐ Organic ☐ Clay ☐ Other ☐	0 - 10% ☐ 10 - 20% ☐ 20% - over ☐	Gas ☐ Diesel ☐ Other ☐					

List any exception to items listed above:

Generator's and/or consultant's certification: I/We certify that the soil referenced herein is taken entirely from those soils described in the Soil Data Sheet completed and certified by me/us for the Generation Site shown above and nothing has been added or done to such soil that would alter it in any way.

Print or Type Name: Kirk C. Heuel — Generator ☐ Consultant ☐ — Signature and date: [signature] — Month 03 Day 15 Year 05

Transporter

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received. I/We further certify that this soil is being directly transported from the Generation Site to the Designated Facility without off-loading, adding to, subtracting from or in any way delaying delivery to such site.

Print or Type Name: JAMES R McVAY — Signature and date: James R McVay — Month 3 Day 16 Year 05

Recycling Facility

Discrepancies:

Recycling Facility certifies the receipt of the soil covered by this manifest except as noted above:

Print or Type Name: D. JEFFREY/J. PROVANSAL — Signature and date:

INTERMEDIATE CALCULATIONS SHEET

Source-building separation, L_T (cm)	Vadose zone soil air-filled porosity, θ_a^V (cm^3/cm^3)	Vadose zone effective total fluid saturation, S_{te} (cm^3/cm^3)	Vadose zone soil intrinsic permeability, k_i (cm^2)	Vadose zone soil relative air permeability, k_{rg} (cm^2)	Vadose zone soil effective vapor permeability, k_v (cm^2)	Floor-wall seam perimeter, X_{crack} (cm)	Soil gas conc. ($\mu g/m^3$)	Bldg. ventilation rate, $Q_{building}$ (cm^3/s)
747	0.200	-0.093	1.78E-09	#NUM!	#NUM!	4,000	3.83E+00	3.39E+04

Area of enclosed space below grade, A_B (cm^2)	Crack-to-total area ratio, η (unitless)	Crack depth below grade, Z_{crack} (cm)	Enthalpy of vaporization at ave. soil temperature, $\Delta H_{v,TS}$ (cal/mol)	Henry's law constant at ave. soil temperature, H_{TS} (atm-m^3/mol)	Henry's law constant at ave. soil temperature, H'_{TS} (unitless)	Vapor viscosity at ave. soil temperature, μ_{TS} (g/cm-s)	Vadose zone effective diffusion coefficient, D^{eff}_v (cm^2/s)	Diffusion path length, L_d (cm)
1.00E+06	5.00E-03	15	12,768	4.48E-04	1.84E-02	1.80E-04	3.09E-03	747

Convection path length, L_p (cm)	Source vapor conc., C_{source} ($\mu g/m^3$)	Crack radius, r_{crack} (cm)	Average vapor flow rate into bldg., Q_{soil} (cm^3/s)	Crack effective diffusion coefficient, D^{crack} (cm^2/s)	Area of crack, A_{crack} (cm^2)	Exponent of equivalent foundation Peclet number, exp(Pe^f) (unitless)	Infinite source indoor attenuation coefficient, α (unitless)	Infinite source bldg. conc., $C_{building}$ ($\mu g/m^3$)
15	3.83E+00	1.25	8.33E+01	3.09E-03	5.00E+03	2.87E+23	1.16E-04	4.45E-04

Unit risk factor, URF ($\mu g/m^3)^{-1}$	Reference conc., RfC (mg/m^3)
3.4E-05	3.0E-03

END

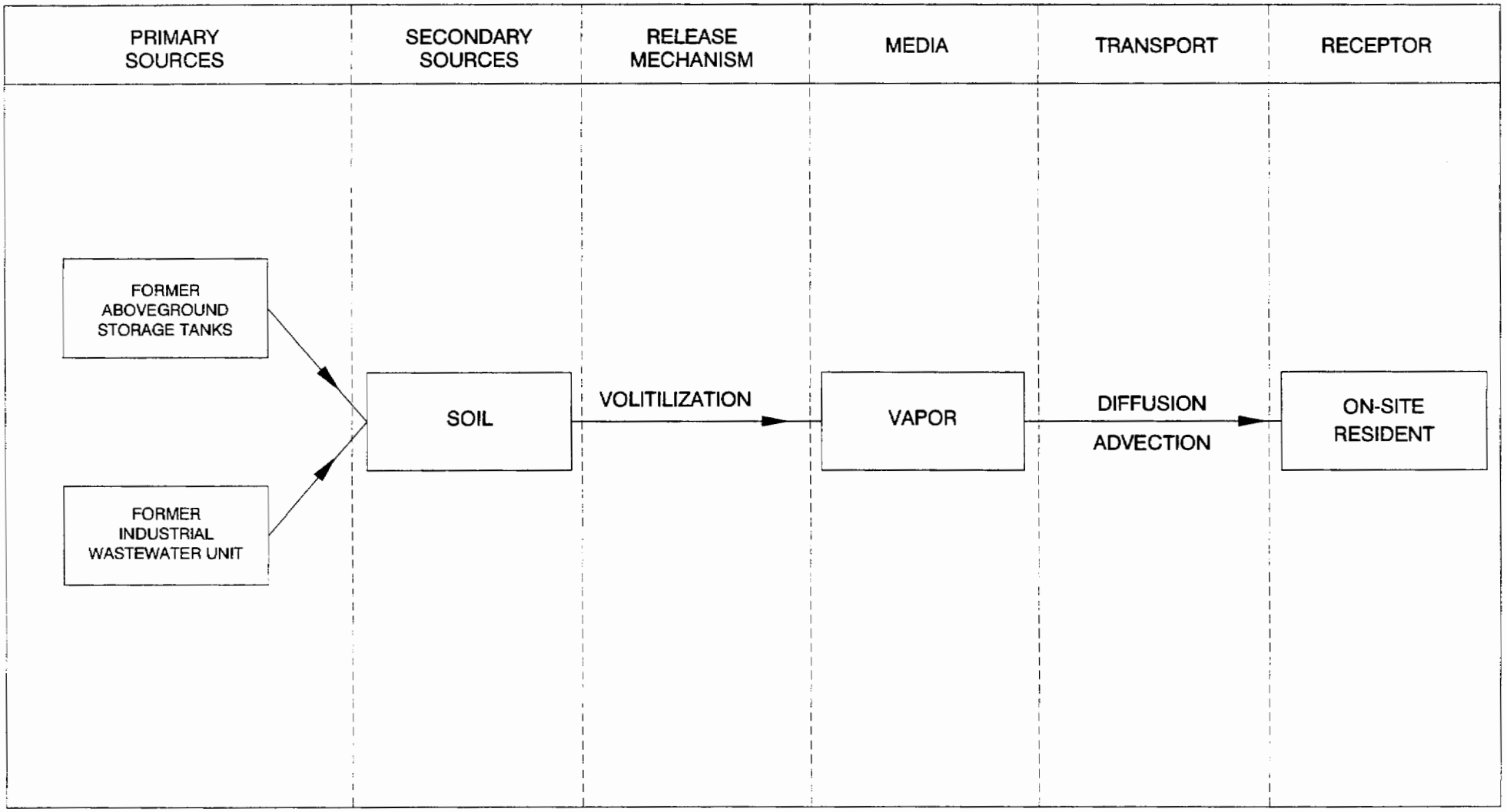
RESULTS SHEET

INCREMENTAL RISK CALCULATIONS:

Incremental risk from vapor intrusion to indoor air, carcinogen (unitless)	Hazard quotient from vapor intrusion to indoor air, noncarcinogen (unitless)
6.2E-09	1.4E-04

MESSAGE SUMMARY BELOW:

END



Ninyo & Moore

CONCEPTUAL SITE MODEL

12600 FLORENCE AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	APPENDIX
205372005	2/2005	F

205372-A6.DWG