



OCT 04 2001

1704 Via Riata Roseville, CA 95747

Tel: (916) 771-7098, FAX : (916) 771-4584

October 1, 2001

Ms. Eva Chu
Alameda County
Environmental Health Department
470 27th Street, Room 322
Oakland, California 94612

Subject: *Product Line and Excavation Sampling Results Report*
Beacon Station No. 3721
44 Lewelling Boulevard
San Lorenzo, California
Doulos Project No. 00-3721

Dear Ms. Chu:

Doulos Environmental, Inc. (Doulos), has been authorized by Ultramar, Inc. (Ultramar), to conduct product line and over-excavation sampling at the subject site. The location of the site is presented in Figure 1, and a detailed site map is included as Figure 2. The purpose of this report is to document product line and the over-excavation sampling locations and oversight activities conducted during the station's upgrades conducted in July 2001.

Product Line Sampling

JNS Construction of Fresno, California was contracted by Ultramar Inc to conduct station upgrades. These station upgrades included replacing the product lines, dispensers, fill ports, turbines, and concrete cover over the tank basin. Approximately 23-cubic yards of soil were generated from tank basin and product lines overburden and additional soil generated from trenching for the placement of new vent lines. Doulos conducted product line and dispenser soil sampling on July 10, 2001. The locations of product line and dispenser soil sampling are illustrated in Figure 3. Field methods and procedures used during soil sampling are summarized in Enclosure A. Product line and dispenser soil samples were collected under each dispenser islands and along the product line trenching as directed by the Alameda County Environmental Health Department (County) on-site representative.

A combination of six-product line and dispenser soil samples were collected during the July 10, 2001 soil sample activities and submitted for laboratory analysis. Soil samples collected in the field were screened for the presence of petroleum hydrocarbon vapors using a photo ionization detector (PID).

Soil Sample Analytical Results

The July 10, 2001 soil samples were submitted to Kiff Analytical LLC, (Kiff laboratory) for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), total petroleum hydrocarbons (TPHg) as

Cost Effective Solutions

Ms. Eva Chu
Alameda County Environmental Health
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October 1, 2001
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gasoline and methyl-t-butyl ether (MTBE) using EPA Method 8260B. The County requested the soil sample with the highest MTBE results be analyzed for the additional constituents: diisopropyl ether (DIPE), ethyl-t-butyl (ETBE), tert-amyl methyl ether (TAME), tert-butanol, methanol, ethanol, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (EDB) using EPA Method 8260B. The laboratory analytical results for the six soil samples and one stockpile sample are summarized in Table 1. A copy of the laboratory analytical report including chain-of-custody documentation is included as Enclosure B.

Excavation Activities

During station upgrades and soil sampling activities, impacted soil was encountered in the vicinity of the eastern and western dispenser islands. Ultramar requested Doulos to oversee the excavation. With the assistance of JNS Construction and a backhoe, Doulos conducted the oversight of the excavation and confirmation soil sampling. The excavation is illustrated in Figure 3. Approximately 8.25 cubic yards (estimate) of impacted soil was excavated from the eastern and western dispenser island locations during the July 13, 2001 over-excavation activities. Two confirmation soil samples were collected during the over-excavation activities. The locations of over-excavation confirmation soil samples are illustrated in Figure 3. The over-excavation confirmation soil sample analytical results are summarized in Table 1. A copy of the laboratory analytical report including chain-of-custody documentation is included as Enclosure B. Additional soil was excavated from between the east and west over-excavation area for the installation of new product lines and dispensers.

Soil Stockpile

During stations upgrades and over-excavation activities, 46.14 tons (approximately 31.25-cubic yards) of soil was generated. The soil was stockpiled on, and covered with plastic sheeting pending review of disposal options and laboratory sample results. Based on the stockpile soil sample results, the soil stockpile was transported to Forward Landfill in Stockton, California. The stockpile soil analytical results are summarized in Table 1. A copy of the laboratory analytical report including chain-of-custody documentation is included as Enclosure B.

Remarks/Signatures

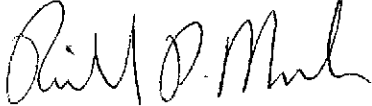
The interpretations contained in this document represent our professional opinions, and are based in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeological and engineering practices at this time and location. Other than this, no warranty is implied or intended.

Ms. Eva Chu
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If you have any questions regarding this project, please contact Richard Munsch at (916) 771-7098.

Sincerely,

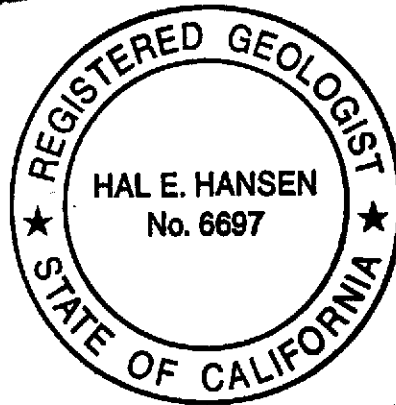
DOULOS ENVIRONMENTAL, INC.



Richard D. Munsch
Project Manager



Hal Hansen, R.G.
California Registered Geologist No. 6697



RDM (3721 Line Sampling Results 7-10 & 13-01)
Enclosures

- Enclosure A: Field Methods and Procedures
- Enclosure B: Laboratory Analytical Reports

cc: Mr. Joe Aldridge, Ultramar, Inc.
Mr. Steven Ritchie, California Regional Water Quality Control Board – San Francisco Region

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS

Beacon Station No.3721
44 Lewelling Boulevard
San Lorenzo, California

Sample ID	Sample Date	Depth (ft)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	TPH as gasoline (mg/kg)	MTBE (mg/kg)	Oxygenate Compounds (mg/kg)	Total Lead (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)
Line Samples												
LS-1-2'	07/10/01	2.0	<0.005	<0.005	<0.005	<0.005	<1.0	<0.005	NA	NA	NA	NA
LS-2-2'	07/10/01	2.0	<0.005	<0.005	<0.005	<0.005	<1.0	0.740	NA	NA	NA	NA
LS-3-4'	07/10/01	4.0	<0.005	<0.005	<0.005	<0.005	<1.0	<0.005	NA	NA	NA	NA
LS-4-2.5'	07/10/01	2.5	<0.005	<0.005	<0.005	<0.005	<1.0	0.0052	NA	NA	NA	NA
LS-5-3'	07/10/01	3.0	0.27	0.99	0.31	1.9	9.7	13.0	0.044 ^a , 1.7 ^b	7.9	<0.010	<0.010
LS-5-2-4.5'	07/10/01	4.5	<0.005	<0.005	<0.005	<0.005	<1.0	0.094	NA	NA	NA	NA
Stockpile												
SP-ABCD	07/10/01	—	<0.005	0.17	0.26	4.7	200	0.72	NA	7.7	NA	NA
Over-Excavation												
OX-1-5'	07/13/01	5.0	<0.005	0.015	<0.005	0.16	<1.0	0.0068	NA	NA	NA	NA
OX-2-5'	07/13/01	5.0	<0.005	<0.005	<0.005	<0.005	<1.0	<0.005	NA	NA	NA	NA

^a Tert-amyl methyl ether

^b Tert-butanol

TPH = Total petroleum hydrocarbons.

MTBE = Methyl tertiary butyl ether

Oxygenate compounds = Methyl tertiary butyl ether, diisopropyl ether, ethyl-t-butyl ether, tert-amyl methyl ether, tert-butanol by EPA Method 8260B.

1,2-DCA = 1,2-Dichloroethane

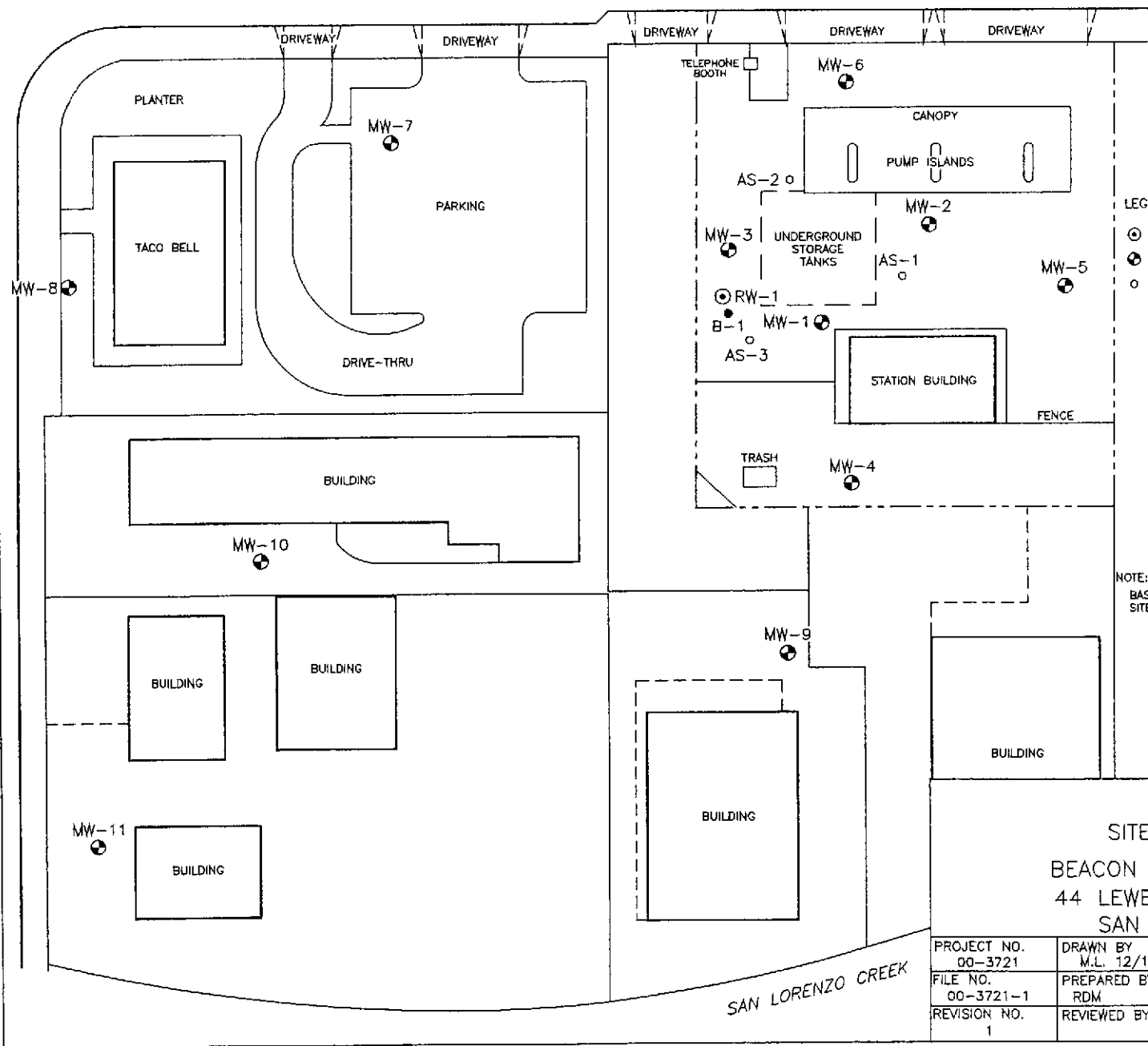
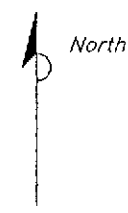
EDB = 1,2-Dibromoethane

mg/kg = Milligrams per kilogram.

NA = Not analyzed.

ND = Not detected at or above the laboratory reporting limit.

LEWELLING BOULEVARD



- LEGEND:
- ⊙ RW-1 RECOVERY WELL LOCATION
 - ⊕ MW-1 MONITORING WELL LOCATION
 - AS-1 AIR SPARGING WELL LOCATION

NOTE:
BASE MAP ADAPTED FROM RESNA FIGURE DATED 1/9/92
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED

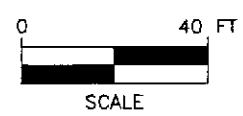
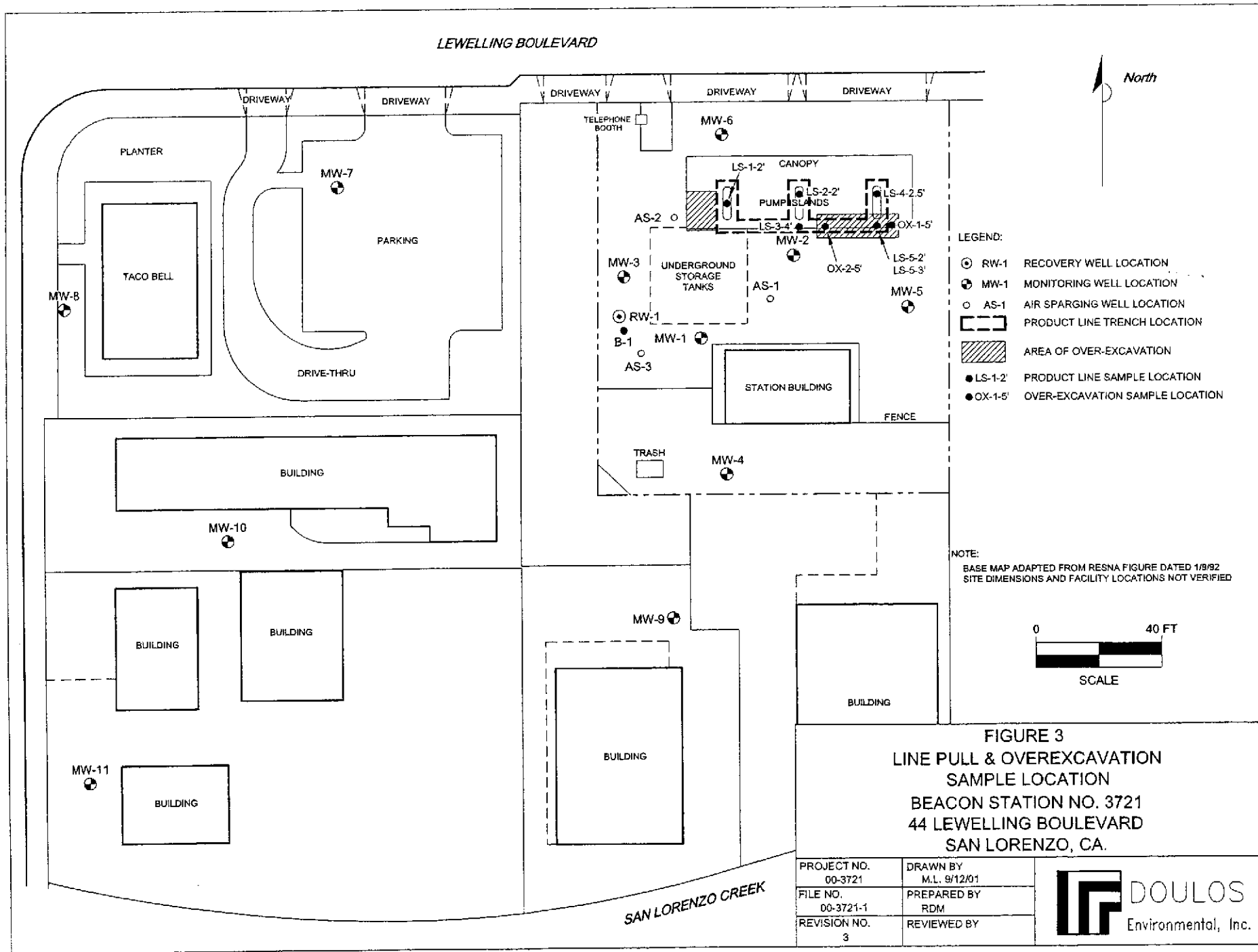


FIGURE '2
SITE VICINITY MAP
BEACON STATION NO. 3721
44 LEWELLING BOULEVARD
SAN LORENZO, CA.

SAN LORENZO CREEK

PROJECT NO. 00-3721	DRAWN BY M.L. 12/15/00
FILE NO. 00-3721-1	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY





LEWELLING BOULEVARD



- LEGEND:
- ⊙ RW-1 RECOVERY WELL LOCATION
 - ⊕ MW-1 MONITORING WELL LOCATION
 - AS-1 AIR SPARGING WELL LOCATION
 - PRODUCT LINE TRENCH LOCATION
 - ▨ AREA OF OVER-EXCAVATION
 - LS-1-2' PRODUCT LINE SAMPLE LOCATION
 - OX-1-5' OVER-EXCAVATION SAMPLE LOCATION

NOTE:
BASE MAP ADAPTED FROM RESNA FIGURE DATED 1/9/92
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED



FIGURE 3
LINE PULL & OVEREXCAVATION
SAMPLE LOCATION
BEACON STATION NO. 3721
44 LEWELLING BOULEVARD
SAN LORENZO, CA.

PROJECT NO. 00-3721	DRAWN BY M.L. 9/12/01
FILE NO. 00-3721-1	PREPARED BY RDM
REVISION NO. 3	REVIEWED BY



SAN LORENZO CREEK

DOULOS ENVIRONMENTAL, INC.

Attachment B

Sampling Methods

Proper sampling methods must be followed to assure that samples represent actual field conditions and that samples are labeled, preserved, and transported properly to retain sample integrity. This attachment describes procedures to be followed by Doulos Environmental Company (Doulos), during collection of samples of subsurface soil and groundwater. Sampling procedures will be based on sampling guidance documents from the American Society of Testing and materials (ASTM), U.S. Environmental protection Agency (EPA), and California Department of Health Services (DHS). Actual sampling procedures to be employed will be based on field conditions and may differ from those described here.

A. EXPLORATION BORING/SOIL SAMPLING PROCEDURES

Soil borings and soil sampling will be performed under the direction of a Doulos geologist. The soil borings will be advanced using drilling techniques appropriate for each project, as specified in the project work plan.

Soil samples will be collected at maximum intervals of 5 feet. Soil sampling will be done in accordance with ASTM 1586-84. Using this procedure, three 1.06- to 2-inch-diameter, 6-inch-length, brass or stainless steel tubes are placed in a California-type-split-barrel sampler, or a slide hammer with a single 6-inch by 2-inch brass or stainless tube by tapping the tube into the soil in the backhoe bucket with a hammer. The sampler is driven into the soil by a 140-pound weight falling 30 inches or with a slide hammer on hand auger samples. After an initial set of 6 inches, the number of blows required to drive the sampler an additional 12 inches is known as penetration resistance, or the AN_{\cong} value. The AN_{\cong} value is used as an empirical measure of the relative density of cohesion less soils and the consistency of cohesive soils. When collecting a soil sample from a tank excavation or line excavation, the soil sample will be collected by tapping a brass stainless steel tube into the soil in the backhoe bucket.

Upon recovery of the split-barrel sampler or slide hammer sampler, the brass or stainless steel tubes containing the soil will be removed. One tube will be sealed at the ends with plastic end caps. The end caps will be secured to the ends of the tube to prevent loss of volatile constituents. The sample will be labeled with an identification number, time, date, locations, and requested laboratory analysis. The sample will then be placed in a plastic bag and stored at approximately 4 degrees Celsius in an ice chest for transport to the laboratory. Sample custody procedures outlined in Section E of this attachment will be followed. This will be performed for each sample collected.

Soil in one of the brass or stainless steel tubes from the split-barrel sampler will be extracted upon recovery, placed in a plastic bag, and sealed for later screening for organic vapors using a photo ionization detector (PID) or a flame ionization detector (FID). The remaining portion of the soil sample will be examined and a complete log of soil conditions will be recorded on a soil boring log using the Unified Soil Classification System. The soil will be examined for grain size, color, and moisture content.

The split-barrel sampler or slide hammer sampler will be cleaned to prevent contamination across sampling intervals using procedures described in Section C. Soil generated from the soil borings will be stored in 55-gallon drums (unless otherwise directed by agencies or the client) labeled with the corresponding boring number, date, and address of the facility.

DECONTAMINATION AND DISPOSAL PROCEDURES

All equipment that comes into contact with potentially contaminated soil, drilling fluid, air or water will be decontaminated before each use. Decontamination will consist of steam cleaning, a high-pressure, hot-water rinse, or trisodium phosphate (TSP) wash and freshwater rinse, as appropriate. Drilling and sampling equipment will be decontaminated as follows:

1. Drill rig augers, drill rods, and drill bits will be steam-cleaned prior to use and between borings. Visible soil, grease, and other impurities will be removed.
2. Soil sampling equipment will be steam-cleaned prior to use and between each boring. Prior to individual sample collection, any sampling device will also be cleaned in a TSP solution and rinsed twice in clean water. Any visible soil residue will be removed.
3. It is anticipated that disposable equipment will be used to collect water samples. If disposable equipment is not used, water sampling equipment will be decontaminated using methods described in item 2 above for soil sampling equipment.
4. Water sampling containers will be cleaned and prepared by the respective analytical laboratories.
5. Stainless steel or brass soil sampling tubes will be steam-cleaned or washed in TSP solution and rinsed with clean water.
6. Field monitoring equipment (pH, conductivity, or temperature probes) will be rinsed with clean water prior to use and between samples.

C. FIELD MEASUREMENTS

Field data will be collected during various sampling and monitoring activities; this section describes routine procedures to be followed by personnel performing field measurements. The methods presented below are intended to ensure that field measurements are consistent and reproducible when performed by various personnel.

C.1 Buried Utility Locations

Prior to commencement of work on site, Doulos will contact appropriate utility companies to have underground utility lines located. Doulos will also visually survey the site to estimate the locations of potentially unmarked underground utilities. All work associated with the borings will be preceded by hand augering to a minimum depth of 5 feet below grade to avoid damaging underground utilities.

C.2 Lithologic Logging

A log of soil conditions encountered during the drilling and sample collection will be maintained using the Unified Soil Classification System by a Doulos geologist. All boring logs will be reviewed by a California registered geologist.

The collected soil samples will be examined and the following information recorded: boring location, sample interval and depth, blow counts, color, soil type, moisture content (qualitative), and depth at which ground water (if present) is first encountered. Also recorded on the soil boring logs will be the field screening results derived from the use of a portable PID or FID.

C.3 Disposal Procedures

Soils and fluids that are produced and/or used during the installation and sampling of borings, and that are known or suspected to contain potentially hazardous materials, will be contained during the above

operations. These substances will be retained on site until chemical testing has been completed to determine the proper means of disposal. Handling and disposal of substances known or suspected to contain potentially hazardous materials will comply with the applicable regulations of DHS, the California

Department of Water Resources, and any other applicable regulations. Soils and fluids produced and/or used during the above-described operations that are shown to contain potentially hazardous materials will be disposed of appropriately.

Residual substances generated during cleaning procedures that are known or suspected to pose a threat to human health or the environment will be placed in appropriate containers until chemical testing has been completed to determine the proper means for their disposal.

C.4 Conductivity, Temperature, and pH

Specific conductance, water temperature, and pH measurements will be made when a water sample is collected. Regardless of the sample collection method, a representative water sample will be placed in a transfer bottle used solely for field parameter determinations. A conventional pH meter with a combination electrode or equivalent will be used for field-specific conductance measurements. Temperature measurements will be performed using standard thermometers or equivalent temperature meters. Combination instruments capable of measuring two or all three of the parameters may also be used.

All instruments will be calibrated in accordance with manufacturer's recommendations. The values for conductivity standards and pH buffers used in calibration will be recorded in a field notebook. All probes will be thoroughly cleaned and rinsed with fresh water prior to any measurements, in accordance with Section C.1

D. SAMPLE CUSTODY

This section describes standard operating procedures for sample custody and custody documentation. Sample custody procedures will be followed through sample collection, transfer, analysis, and ultimate disposal. The purpose of these procedures is to assure that (1) the integrity of samples is maintained during their collection, transportation, and storage prior to analysis and (2) post-analysis sample material is properly disposed of. Sample custody is divided into field procedures and laboratory procedures, as described below.

D.1 Field Custody Procedures

Sample quantities, types, and locations will be determined before the actual fieldwork commences. As few personnel as possible will handle samples. The field sampler is personally responsible for the care and custody of the collected samples until they are properly transferred.

D.1.1 Field Documentation

Each sample will be labeled and sealed properly immediately after collection. Sample identification documents will be carefully prepared so that identification and chain-of-custody records can be maintained and sample disposition can be controlled. Forms will be filled out with waterproof ink. The following sample identification documents will be utilized:

- Sample labels
- Field notebook
- Chain-of-custody forms

D.1.2 Sample Labels

Sample labels provide identification of samples. Preprinted sample labels will be provided. Where necessary, the label will be protected from water and solvents with clear label-protection tape. Each label

will contain the following information:

- Name of collector
- Date and time of collection
- Place of collection
- Doulos project number
- Sample number
- Preservative (if any)

D.1.3 Sample Labels

Information pertinent to a field survey, measurements, and/or sampling must be recorded on field data sheets. Entries on data sheets should include the following:

- Name and title of author, date and time of entry, and physical/environmental conditions during field activity.
- Location of sampling or measurement activity.
- Name(s) and title(s) of field crew.
- Type of sampled media (e.g., soil, groundwater, air, etc.).
- Sample collection or measurement method(s).
- Number and volume of sample(s) collected.
- Description of sampling point(s).
- Description of measuring reference point(s).
- Date and time of collection or measurement.
- Sample identification number(s).
- Sample preservative (if any).
- Sample distribution (e.g., laboratory).
- Field observations/comments.
- Field measurement data (pH, etc.).

D.1.4 Chain-of-custody Record

A chain-of-custody record will be filled out for and will accompany every sample and every shipment of samples to the analytical laboratories in order to establish the documentation necessary to trace sample possession from the time of collection. The record will contain the following information:

- Station of sample number of sample I.D.
- Signature of collector, sampler, or recorder.
- Date and time of collection.
- Place of collection.
- Sample type.
- Signatures of persons involved in the chain of possession.
- Inclusive dates of possession.

The laboratory portion of the form should be completed by laboratory personnel and will contain the following information:

- Name of person receiving the sample.

- Laboratory sample number.
- Date and time of sample receipt.
- Analyses requested.
- Sample condition and temperature.

D.1.5 Sample Transfer and Shipment

A chain-of-custody record will always accompany samples. When transferring samples, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain-of-custody record.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis. The chain-of-custody record will accompany each shipment. The method of shipment, courier name(s), and other pertinent information will be entered in the chain-of-custody record.

D.2 Laboratory Custody Procedures

A designated sample custodian will accept custody of the shipped samples and verify that the information on the sample label matches that on the chain-of-custody record. Information regarding method of delivery and sample conditions will also be checked on the chain-of-custody record. The custodian will then enter the appropriate data into the laboratory sample tracking system. The laboratory custodian may use the sample number on the sample label or may assign a unique laboratory number to each sample. The custodian will then transfer the sample to the proper analyst or store the sample in the appropriate secure area.

Laboratory personnel are responsible for the care and custody of samples from the time they are received until the sample is exhausted. Once at the laboratory, the samples will be handled in accordance with U.S. Environmental Protection Agency SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Third Edition, for the intended analyses. All data sheets, chromatographs, and laboratory records will be filed as part of the permanent documentation.

D.3 Corrections to Documentation

Original data recorded in field notebooks, chain-of-custody records, sampling information sheets, and other forms should be written in ink. These documents should not be altered, destroyed, or discarded even if they are illegible or contain inaccuracies that require a replacement document.

If an error is made or found on a document, the individual making the corrections will do so by crossing a single line through the error, entering the correct information, and initialing and dating the change. The erroneous information will be obliterated. Any subsequent error(s) discovered on a document will be corrected. All corrections will be initialed and dated.

D.4 Sample Storage and Disposal

The analytical laboratory should retain samples and extracts for 60 days after the laboratory issues a written report. Unless notified by the program manager, excess or unused samples should be disposed of by the laboratory in an appropriate manner consistent with applicable government regulations.



Report Number : 21194

Date : 7/11/2001

Richard Munsch
Doulos Environmental
1704 Via Riata
Roseville, CA 95747

Subject : 7 Soil Samples
Project Name : 721 Beacon San Lorenzo
Project Number :
P.O. Number : 203-103721-511010

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, looped "J" and a long, sweeping "K".

Joel Kiff



Report Number : 21194

Date : 7/11/2001

Project Name : 721 Beacon San Lorenzo

Project Number :

Sample : LS-1 2'

Matrix : Soil

Lab Number : 21194-01

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	7/10/2001
Toluene - d8 (Surr)	32.6		% Recovery	EPA 8260B	7/10/2001
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	7/10/2001

Sample : LS-2 2'

Matrix : Soil

Lab Number : 21194-02

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/11/2001
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/11/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/11/2001
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/11/2001
Methyl-t-butyl ether (MTBE)	0.74	0.50	mg/Kg	EPA 8260B	7/10/2001
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	7/11/2001
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	7/11/2001
4-Bromofluorobenzene (Surr)	98.9		% Recovery	EPA 8260B	7/11/2001

Approved By:  Joel Kiff



Report Number : 21194

Date : 7/11/2001

Project Name : 721 Beacon San Lorenzo

Project Number :

Sample : LS-3 4'

Matrix : Soil

Lab Number : 21194-03

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	7/10/2001
Toluene - d8 (Surr)	95.9		% Recovery	EPA 8260B	7/10/2001
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	7/10/2001

Sample : LS-4 2.5'

Matrix : Soil

Lab Number : 21194-04

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Methyl-t-butyl ether (MTBE)	0.0052	0.0050	mg/Kg	EPA 8260B	7/10/2001
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	7/10/2001
Toluene - d8 (Surr)	93.1		% Recovery	EPA 8260B	7/10/2001
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	7/10/2001

Approved By:  Joel Kiff



Report Number : 21194

Date : 7/11/2001

Project Name : 721 Beacon San Lorenzo

Project Number :

Sample : LS-5 3'

Matrix : Soil

Lab Number : 21194-05

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.27	0.010	mg/Kg	EPA 8260B	7/11/2001
Toluene	0.99	0.010	mg/Kg	EPA 8260B	7/11/2001
Ethylbenzene	0.31	0.010	mg/Kg	EPA 8260B	7/11/2001
Total Xylenes	1.9	0.010	mg/Kg	EPA 8260B	7/11/2001
Methyl-t-butyl ether (MTBE)	13	0.50	mg/Kg	EPA 8260B	7/10/2001
Diisopropyl ether (DIPE)	< 0.010	0.010	mg/Kg	EPA 8260B	7/11/2001
Ethyl-t-butyl ether (ETBE)	< 0.010	0.010	mg/Kg	EPA 8260B	7/11/2001
Tert-amyl methyl ether (TAME)	0.044	0.010	mg/Kg	EPA 8260B	7/11/2001
Tert-Butanol	1.7	0.050	mg/Kg	EPA 8260B	7/11/2001
TPH as Gasoline	9.7	1.0	mg/Kg	EPA 8260B	7/11/2001
1,2-Dichloroethane	< 0.010	0.010	mg/Kg	EPA 8260B	7/11/2001
1,2-Dibromoethane	< 0.010	0.010	mg/Kg	EPA 8260B	7/11/2001
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	7/11/2001
4-Bromofluorobenzene (Surr)	98.1		% Recovery	EPA 8260B	7/11/2001
Dibromofluoromethane (Surr)	94.8		% Recovery	EPA 8260B	7/10/2001
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	7/11/2001

Approved By:  Joel Kiff



Report Number : 21194

Date : 7/11/2001

Project Name : 721 Beacon San Lorenzo

Project Number :

Sample : LS-5-2 4.5'

Matrix : Soil

Lab Number : 21194-06

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/10/2001
Methyl-t-butyl ether (MTBE)	0.094	0.0050	mg/Kg	EPA 8260B	7/10/2001
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	7/10/2001
Toluene - d8 (Surr)	97.3		% Recovery	EPA 8260B	7/10/2001
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	7/10/2001

Sample : Stockpile A,B,C,D

Matrix : Soil

Lab Number : 21194-07

Sample Date :7/10/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	mg/Kg	EPA 8260B	7/11/2001
Toluene	0.17	0.050	mg/Kg	EPA 8260B	7/11/2001
Ethylbenzene	0.26	0.050	mg/Kg	EPA 8260B	7/11/2001
Total Xylenes	4.7	0.050	mg/Kg	EPA 8260B	7/11/2001
Methyl-t-butyl ether (MTBE)	0.72	0.10	mg/Kg	EPA 8260B	7/10/2001
TPH as Gasoline	200	5.0	mg/Kg	EPA 8260B	7/11/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	7/11/2001
4-Bromofluorobenzene (Surr)	99.6		% Recovery	EPA 8260B	7/11/2001

Approved By:  Joel Kiff

Analysis Report: Lead, EPA Method 6010

Client: Joel Kiff
720 Olive Drive,
Suite D
Davis, CA 95616

Project No.:
Contact: Joel Kiff
Phone: (530)297-4800

Project: 721 Beacon San Lorenzo

Lab Contact: James Liang
Lab ID No.: S9888
Job No.: 839888
CDC Log No.: 21194
Batch No.: M010712B
Instrument ID: IP004
Analyst ID: CHARLESS
Matrix: SO

Date Sampled: 07/10/2001
Date Received: 07/11/2001
Date Extracted: 07/12/2001
Date Analyzed: 07/12/2001
Date Reported: 07/12/2001

ANALYTICAL RESULTS

Lab / Client ID Analyte	CAS No.	Results (mg/kg)	Rep. Limit (mg/kg)	Dilution (factor)
1A / LS-5 3' Pb (Lead)	7439921	7.9	2.5	1.0
2A / Stockpile A,B,C,D Pb (Lead)	7439921	7.7	2.5	1.0

ND = Not detected at or above indicated Reporting Limit



720 Olive Drive, Suite D
 Davis, CA 95616
 Lab: 530.297.4800
 Fax: 530.297.4803

Lab No. 21194 Page 1 of 1

Project Manager: Richard Munsch Phone No.: 916 771 7098

Company/Address: Doulos Env. FAX No.: 916 771 4584

Project Number: _____ P.O. No.: 203-103721-511010 Email Address: _____
 .pdf .xls .doc other

Project Name/Location: 721 Beacon San Lorenzo Sampler Signature: Wal Hansen

Chain-of-Custody Record and Analysis Request

Analysis Request														TAT	For Lab Use Only											
Sample Designation	Sampling		Container (Type/Amount)		Method Preserved				Matrix		BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8016)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239-2) TOTAL (X) W.E.T. (X)	12 hr = 24 hr / 48 hr / 72 hr / 1 wk 12 hr = Results by 9 a.m. of the next bus. day 24 hr = Results by 5 p.m. of the next bus. day 48 hr = Results by 5 p.m. of the 2nd bus. day 72 hr = Results by 5 p.m. of the 3rd bus. day 1 wk = Results by 5 p.m. of the 5th bus. day		
	Date	Time	40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	NONE	WATER/SOIL																	
LS-1 2'	7/10/01					X			S		X															-01
LS-2 2'																										-02
LS-3 4'																										-03
LS-4 2.5'																										-04
LS-5 3'																						X				-05
LS-5-2 4.5'																										-06
Stockpile ABCD																						X				-07

Relinquished by: Wal Hansen Date: 7/10/01 Time: 1550 Received by: _____
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____
 Relinquished by: _____ Date: 07/10/01 Time: 1550 Received by Laboratory: OSUMA ALABAMA ANALYTICAL 12/1/01

Remarks: The sample with the LS-5 has best MTBE results, confirm by 8260 run that sample also for 5 oxygenates and lead scavenger gas
 Bill to: Joe Aldridge



Report Number : 21269

Date : 7/24/2001

Richard Munsch
Doulos Environmental
1704 Via Riata
Roseville, CA 95747

Subject : 2 Soil Samples
Project Name : 721 Beacon San Lorenzo
Project Number :
P.O. Number : 203-103-721 511010

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, stylized "J" and "K".

Joel Kiff



Report Number : 21269

Date : 7/24/2001

Project Name : 721 Beacon San Lorenzo

Project Number :

Sample : OX-1 5'

Matrix : Soil

Lab Number : 21269-01

Sample Date :7/13/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
Toluene	0.015	0.0050	mg/Kg	EPA 8260B	7/19/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
Total Xylenes	0.16	0.0050	mg/Kg	EPA 8260B	7/19/2001
Methyl-t-butyl ether (MTBE)	0.0068	0.0050	mg/Kg	EPA 8260B	7/19/2001
TPH as Gasoline	1.1	1.0	mg/Kg	EPA 8260B	7/19/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	7/19/2001
4-Bromofluorobenzene (Surr)	93.9		% Recovery	EPA 8260B	7/19/2001

Sample : OX-2 5'

Matrix : Soil

Lab Number : 21269-02

Sample Date :7/13/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
Toluene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
Ethylbenzene	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
Total Xylenes	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
Methyl-t-butyl ether (MTBE)	< 0.0050	0.0050	mg/Kg	EPA 8260B	7/19/2001
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	7/19/2001
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	7/19/2001
4-Bromofluorobenzene (Surr)	91.5		% Recovery	EPA 8260B	7/19/2001

Approved By:  Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

California Laboratory Services

Environmental
Laboratory
Information
System

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To: Joel Kiff
From: CLS Labs NC.

Date: 7-12-101
Page 001 of 002

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* You may request individual or all reports also be sent to you *
* via e-mail directly to your desk. You may also request that *
* you would like both fax and e-mail reports be sent. For more *
* information, send an e-mail request to adme@clsclis.com. *

The following facsimile report is of a preliminary nature and as such does not include data that will be forthcoming in the complete report package. Interpretation of the report results should be made only after the complete report package has been delivered.