HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

May 12, 1998

SEP 17 '98 PM 1:06

Mr. Mike Fuller
Fuller Excavating and Demolition, Inc.
3283 Luyung Drive
Rancho Cordova, California 95742

Subject: **Soil and Groundwater Sampling Report**
Second Quarter 1998
Former Minami Nursery site
Penny Lane, San Lorenzo, California

Mr. Fuller:

At the request of Fuller Excavating and Demolition, Inc. (FE&DI), Horizon Environmental Inc. (Horizon) conducted soil and groundwater sampling activities for the above-referenced site (Figure 1). We understand that the work was requested by your client, Mr. Jay Woidtke, attorney for the estate of Mr. George Minami Jr. This Sampling Report is intended to comply with the report guidelines of the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA-DEH) and the California Regional Water Quality Control Board - San Francisco Bay Region (CRWQCB-SFB).

Site Description

The former Minami Nursery site is currently located on Penny Lane in San Lorenzo, California. The city of San Lorenzo is located in west-central Alameda County, California, as shown on the Site Vicinity Map (Figure 1). The site is currently a vacant lot of approximately ½-acre in size that originally was a portion of the 7½-acre Minami Nursery property, which has since been largely developed as a residential subdivision. The original address of the Minami Nursery site was 600 Shirley Avenue in Hayward, California. The site is relatively flat, lies at an elevation of approximately 40 feet above mean sea level (MSL), and is currently occupied by two large stockpiles of soil. Residential properties are located to the north, south, and east of the site, while commercial businesses are located to the west of the site Hesperian Boulevard is located about 200 feet west of the site. The site boundaries and approximate locations of pertinent site features are shown on the Site Plan (Figure 2).

Previous Work

In August and September 1988, Emcon Associates of San Jose, California, performed a Preliminary Soil and Groundwater Assessment (PSGA) at the site for Kaufman and Broad South Bay, Inc. (Emcon, December 1988). The purpose of Emcon's PSGA was to evaluate potential adverse environmental impacts at the entire Minami Nursery site due to historic underground storage tank (UST) practices, and to characterize the extent and magnitude of any contamination detected at the site. There were three fuel USTs located at the site during Emcon's PSGA: a 1,000-gallon gasoline UST (Tank #1), a 2,000-gallon fuel oil UST (Tank #2), and an estimated 1,000-gallon fuel oil UST (Tank #3).

Emcon drilled 21 soil borings at the site and collected soil and "grab" groundwater samples from the borings during the PSGA. Results of laboratory analyses of soil samples indicated that up to 10,000 parts per million (ppm) of total petroleum hydrocarbons (TPH) had impacted the soil in the area of Tank #1, and up to 47 ppm of total oil and grease (TOG) hydrocarbons had impacted the soil in the area of Tank #2. Results of laboratory analyses of groundwater "grab" samples collected from borings in the area of Tank #1 indicated TPH (up to 250,000 parts per billion [ppb]) and the gasoline constituents benzene (up to 2,200 ppb), toluene (up to 16,000 ppb), ethylbenzene (up to 5,300 ppb), and xylenes (up to 28,000 ppb) had impacted groundwater beneath the site. Results of laboratory analyses of groundwater "grab" samples collected from borings in the area of Tank #2 indicated TPH (up to 270 ppb) and the gasoline constituents benzene (up to 1.0 ppb), toluene (up to 13 ppb), ethylbenzene (up to 5 ppb), and xylenes (up to 32 ppb) had impacted groundwater beneath the site. No evidence of fuel hydrocarbons were detected in the soil or groundwater in the area of Tank #3.

In November 1989, Engineering Science Inc. (ESI) of Alameda, California, excavated and removed Tank #1 and Tank #2 from the site (ESI, August 1990). Upon removal, the gasoline UST (Tank #1) was observed to be sound; however, two holes were noted in the side and bottom of the fuel oil UST (Tank #2). Soil samples were collected from native soil at depths of 10 to 11 feet below surface grade (bsg) beneath the ends of each of the two USTs at the site. Results of the laboratory analyses of the four soil samples indicated that the soil beneath the west end of Tank #1 had been impacted by 3,900 ppm Total Petroleum Hydrocarbons as gasoline (TPHg), 13 ppm of benzene, 210 ppm of toluene, 85 ppm of ethylbenzene, and 210 ppm of xylenes (ESI, August 1990). Lead was not detected in the soil samples. Activities performed for the excavation and removal of Tank #3 are not known (ESI, August 1990). Based on these analytical results, the ACHCSA-DEH ordered a site evaluation for the assessment of soil and groundwater impaction.

In November and December 1989, ESI excavated and stockpiled hydrocarbon-impacted soil at the site. Confirmation soil samples collected from the perimeters of the Tank #1 and Tank #2 excavations indicated nondetectable concentrations of petroleum hydrocarbons, except for concentrations of BTEX between 24 ppm and 200 ppm. No soil characterization samples were collected from the estimated 1,255 cubic yards of stockpiled soil at the site. Between January

and March 1990, ESI supervised the backfilling of the two excavations with approximately 1,820 cubic yards of clean fill that was transported to the site. An Underground Fuel Storage Tank Remediation Report was issued by ESI in August 1990 for the tank removal, soil stockpiling, and excavation backfilling work.

In October 1993, a Workplan for a Preliminary Site Assessment was prepared by ESI and submitted to the ACHCSA-DEH (ESI, October 1993). The Workplan proposed the installation of three groundwater monitoring wells at the site, and described procedures for sampling the subsurface soil and groundwater, as well as collecting characterization soil samples from the soil stockpiled at the site. The Workplan was approved by the ACHCSA-DEH in October 1993.

In February 1996, FE&DI personnel visited the site to examine and estimate the amount of stockpiled soil at the site. Field measurements suggested that as much as 2,500 cubic yards of soil was actually stockpiled at the site. The source of the additional soil was unknown, but FE&DI theorized that the excess soil may have been generated during the residential development of the main portion of the Minami Nursery property and discarded at the site (FE&DI, June 1996). In May 1996, FE&DI collected ten composite soil samples from the stockpiled soil at the site (FE&DI, June 1996). Results of the laboratory analyses for 10 characterization soil samples indicated detectable concentrations of Total Oil and Grease (TOG) between 13 and 100 ppm, nondetectable concentrations (less than 1.0 ppm) of Total Petroleum Hydrocarbons as diesel (TPHd), nondetectable concentrations (less than 1.0 ppm) of Total Petroleum Hydrocarbons as gasoline (TPHg), and nondetectable concentrations (less than 0.005 ppm) of the volatile hydrocarbon constituents benzene, toluene, ethylbenzene, and xylenes (BTEX). During May 1996, approximately 500 cubic yards of soil was transported from the site by FE&DI and disposed of at the Landfill Management facility in Hayward, California.

Also in May 1996, FE&DI acquired a Well Construction Permit from Zone 7 of the Alameda County Flood Control and Water Conservation District in Pleasanton, California. On May 28, 1996, FE&DI supervised the drilling and installation of three 2-inch diameter groundwater monitoring wells (MW-1, MW-2, and MW-3) at the site by Exploration GeoServices, Inc. of San Jose, California. The locations of the three wells had been selected by ESI in their 1993 Workplan. Well MW-1 was located within the former gasoline UST excavation to evaluate the soil and groundwater in the immediate area of former Tank #1 and in the inferred downgradient direction of former Tank #2. Wells MW-2 and MW-3 were located along the western property boundary to evaluate the soil and groundwater in the inferred downgradient direction from the two former USTs. Groundwater was encountered during drilling at a depth of approximately 15½ feet below the ground surface (bgs), and rose slightly to a depth of approximately 14 feet bgs.

The three groundwater monitoring wells were developed by surge block and bailing techniques on May 31, 1996. On June 4, 1996, FE&DI personnel purged and sampled the three groundwater monitoring wells. No evidence of floating product was observed in the wells:

however, a noticeable hydrocarbon odor was noted in well MW-1. On June 4, 1996, the tops of the well casings were surveyed by Ron Archer Civil Engineer, Inc., and the average depth-to-water (DTW) in the three wells was 17.11 feet below the top of the well casings. The calculated flow direction was towards the west-northwest with a relatively flat gradient of 0.005 foot per foot (FE&DI, June 1996).

Results of the laboratory analyses for 19 soil samples collected during the drilling of the soil borings for the three wells indicated nondetectable concentrations of TPHd (less than 1.0 ppm), of TPHg (less than 1.0 ppm), and of BTEX (less than 0.005 ppm). Results of the laboratory analyses for the groundwater samples collected from well MW-1 indicated detectable concentrations of TOG (at 1,800 ppb), of TPHg (at 4,100 ppb), and of BTEX (between 4.2 ppb and 36 ppb), and nondetectable concentrations of TPHd (less than 50 ppb) and the fuel oxygenate methyl tertiary butyl ether (MTBE) (less than 0.5 ppb). Results of the laboratory analyses for the groundwater samples collected from downgradient wells MW-2 and MW-3 indicated nondetectable concentrations of TOG (less than 500 ppb), of TPHd (less than 50 ppb), of TPHg (less than 50 ppb), of BTEX (less than 0.5 ppb), and of MTBE (less than 0.5 ppb). A Report for the Preliminary Site Assessment Investigation was issued by FE&DI on June 14, 1996.

Monthly groundwater monitoring activity was conducted in July, August, September, and October 1996, and quarterly groundwater sampling activity was conducted on September 24, 1996 by FE&DI (FE&DI, October 1996). During that time period, the average DTW in the three wells had fallen 0.72-foot to 17.83 feet below the tops of the well casings, and the flow direction was towards the northwest. Results of the laboratory analyses for the groundwater samples collected from well MW-1 indicated the concentration of TOG had decreased to 800 ppb, the concentration of TPHg had increased to 4,700 ppb, the concentration of benzene had increased to 4.5 ppb, the concentration of toluene had decreased to 2.4 ppb, the concentration of ethylbenzene had increased to 12 ppb, the concentration of xylenes had decreased to 21 ppb, and a nondetectable concentration of TPHd (less than 50 ppb). Results of the laboratory analyses for the groundwater samples collected from downgradient wells MW-2 and MW-3 indicated nondetectable concentrations of TOG (less than 500 ppb), of TPHd (less than 50 ppb), of TPHg (less than 50 ppb), and of BTEX (less than 0.5 ppb). A Report for the Third Quarter 1996 Groundwater Sampling at the Former Minami Nursery Site on Penny Lane, San Lorenzo, California was issued by FE&DI in October 1996.

In August 1997, an additional episode of groundwater monitoring was performed at the site (Geomatik, August 1997). The water level in well MW-1 was not measured and water samples were not collected because well MW-1 had been vandalized, and an obstruction was present in the well at an approximate depth of 8 feet. As a result, the flow direction and the gradient could not be accurately determined for the site. The average DTW in wells MW-2 and MW-3 had fallen 0.14-foot to 18.07 feet bsg since wells MW-2 and MW-3 had been last sounded by FE&DI on October 31, 1996. Results of the laboratory analyses for the groundwater samples collected from downgradient wells MW-2 and MW-3 again indicated nondetectable concentrations of TPHd (less than 50 ppb), of TPHg (less than 50 ppb), and of

BTEX (less than 0.5 ppb). A nondetectable concentration of TOG (less than 500 ppb) was measured in well MW-3, however, a detectable concentration of 1,300 ppb of TOG was measured in well MW-2. A Letter Report for Groundwater Sampling Services at the Former Minami Nursery Site on Penny Lane, San Lorenzo, California was issued by Geomatik on August 31, 1997.

Soil Stockpile Sampling

On April 18, 1998, a Horizon geologist arrived at the unsecured vacant site to collect five composite soil samples from the stockpiled soil at the request of FE&DI. Based upon rough measurements made at the site, the Horizon geologist estimated that approximately 1,500 cubic yards of soil were stockpiled at the site in two mounds. The smaller stockpile (SP#1) contained approximately 500 cubic yards of soil, while the larger stockpile (SP#2) contained approximately 1,000 cubic yards of soil. Four discrete soil samples were collected for each composite soil sample, with a total of 20 discrete soil samples being collected from the stockpiled materials (SP#1A,B,C,D, SP#1E,F,G,H, and SP#2A,B,C,D, SP#2E,F,G,H, SP#2I,J,K,L). The soil samples were collected by removing approximately one foot of soil from randomly selected locations at the surface of the stockpile and driving a brass sample sleeve into the stockpile at that location. Horizon Field Methods and Procedures for Soil Stockpile Sampling are included as Attachment A.

After collecting the soil stockpile samples, each brass sample container was properly labeled in the field, placed in an ice chest, and transported under chain-of-custody to McCampbell Analytical in Pacheco, California (Certificate No. 1644). The discrete soil samples were transported to the analytical laboratory and composited by the laboratory. The requested analyses were for Total Oil and Grease (TOG) analysis by standard EPA Method 5520 D&F (for solids); for Total Extractable Petroleum Hydrocarbons as diesel (TPHd) by modified EPA Method 3510/8015; for Total Petroleum Hydrocarbons as gasoline (TPHg) analysis by modified EPA Method 5030/8015; and for the fuel oxygenate MTBE and the volatile aromatics benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8020.

The analytical results for the composite soil samples are compiled in Table 1. The laboratory analytical data sheets and the chain-of-custody report are included as Attachment C.

Groundwater Monitoring

Prior to groundwater sampling, monitoring wells MW-1, MW-2, and MW-3 were measured for their respective total depths and DTWs. The water levels in wells MW-1 and MW-3 were not measured and water samples were not collected because both wells had been vandalized with obstructions present in each well immediately below the casing tops. Unsuccessful attempts were made by the Horizon geologist to remove the obstructions from the two well casings. On April 18, 1998, utilizing an electronic interface probe, Horizon personnel

intercepted the groundwater surface at a depth of 15.75 feet below the casing top of well MW-2. The water table had risen 1.86 feet in well MW-2 since August 13, 1997, when the DTW was 17.61 feet. The cumulative groundwater monitoring data for the three wells are compiled in Table 2. Horizon Field Methods and Procedures for Groundwater Monitoring are included as Attachment A. Horizon Monitoring Well Data Sheets are included as Attachment B.

After collecting groundwater samples from well MW-2, each sample container was properly labeled in the field, placed in an ice chest, and transported under chain-of-custody (COC) to McCampbell Analytical in Pacheco, California (Certificate No. 1644). The requested analyses were for TOG analysis by standard EPA Method 5520 B&C (for liquids); for TPHd by modified EPA Method 3510/8015; for TPHg analysis by modified EPA Method 5030/8015; and for the fuel oxygenate MTBE and the volatile BTEX aromatics by EPA Method 602.

The cumulative analytical results for the three groundwater monitoring wells are compiled in Table 3. The laboratory analytical data sheets and the chain-of-custody report are included as Attachment C.

Summary of Results

On April 18, 1998, soil stockpiles SP#1 and SP#2 and monitoring well MW-2 were sampled at the site. The results of the sampling work indicated the following:

- The analytical results for the five composite soil samples collected from soil stockpiles SP#1 and SP#2 indicated detectable concentrations of hydrocarbon-impacted soils. The analytical results for the smaller soil stockpile SP#1 indicated detectable concentrations of TOG (up to 96 ppm), of TPHd (up to 2.6 ppm), and nondetectable concentrations of TPHg (less than 1.0 ppm), BTEX (less than 0.005 ppm), and MTBE (less than 0.05 ppm). The analytical results for the larger soil stockpile SP#2 indicated detectable concentrations of TOG (up to 570 ppm), of TPHd (up to 53 ppm), and nondetectable concentrations of TPHg (less than 1.0 ppm), BTEX (less than 0.005 ppm), and MTBE (less than 0.05 ppm).

- The water levels in wells MW-1 and MW-3 were not measured and water samples were not collected because both wells have been vandalized with obstructions present in each well below the casing tops.

- The DTW in well MW-2 has risen 1.86 feet in well MW-2 since August 13, 1997.

- The groundwater sample collected from well MW-2 indicated nondetectable concentrations of TOG (less than 5,000 ppb), of TPHd (less than 50 ppb), of TPHg (less than 50 ppb), and of BTEX (less than 0.5 ppb).

Conclusions

Based on the soil data collected during this sampling event, the results of the soil sampling have confirmed that the soil stockpiled at the site has been impacted by TOG and TPHd hydrocarbons. These "heavy" hydrocarbons likely originated from the former 2,000-gallon fuel oil UST (Tank #2) that was excavated and removed from the site in November 1989. The analytical soil results indicate that the soil from stockpile #1 should be disposed of at a Class III landfill, while the soil from stockpile #2 should be disposed of at a Class II landfill facility.

Based on the groundwater data collected during this sampling event, the nondetectable results of the groundwater sampling of well MW-2 have confirmed that the groundwater beneath the southwestern portion of the site has not been impacted by petroleum hydrocarbons. This area of the site has been previously considered to be in a cross-gradient direction from the location of former Tank #1 and Tank #2.

Recommendations

Based on the above conclusions and the soil data collected, Horizon recommends that the stockpiled soil be transported from the site to an appropriate Class II or III landfill for disposal. Based upon the condition of vandalized groundwater monitoring wells MW-1 and MW-3, Horizon recommends that additional attempts be made to clear the obstructions from the well casings. If the obstructions cannot be removed from the well casings, then Horizon recommends that these two wells be properly destroyed as per ACHCSA-DEH guidelines.

Report Distribution

We recommend a copy of this report be forwarded to:

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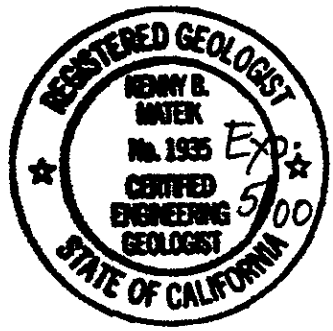
Alameda County Local Program Coordinator
CRWQCB- San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

If you have any questions, please contact Horizon at (916) 939 - 2170.

Sincerely,

HORIZON ENVIRONMENTAL INC.

Gary D. Barker
Senior Project Manager



Kenny B. Mateik
Registered Geologist
C.E.G. No. 1935

Attachments:

	Figure 1	Site Vicinity Map
	Figure 2	Site Map
	Table 1	Soil Stockpile Sampling Data
	Table 2	Cumulative Groundwater Monitoring Data
	Table 3	Cumulative Groundwater Analytical Data
	Attachment A	Horizon Field Methods and Procedures
	Attachment B	Horizon Field Data Sheets
	Attachment C	Laboratory Data Sheets and Chain-of-Custody Reports

Source: Figure Modified From Street Atlas USA, Delorme (1995).

HORIZON ENVIRONMENTAL INC.

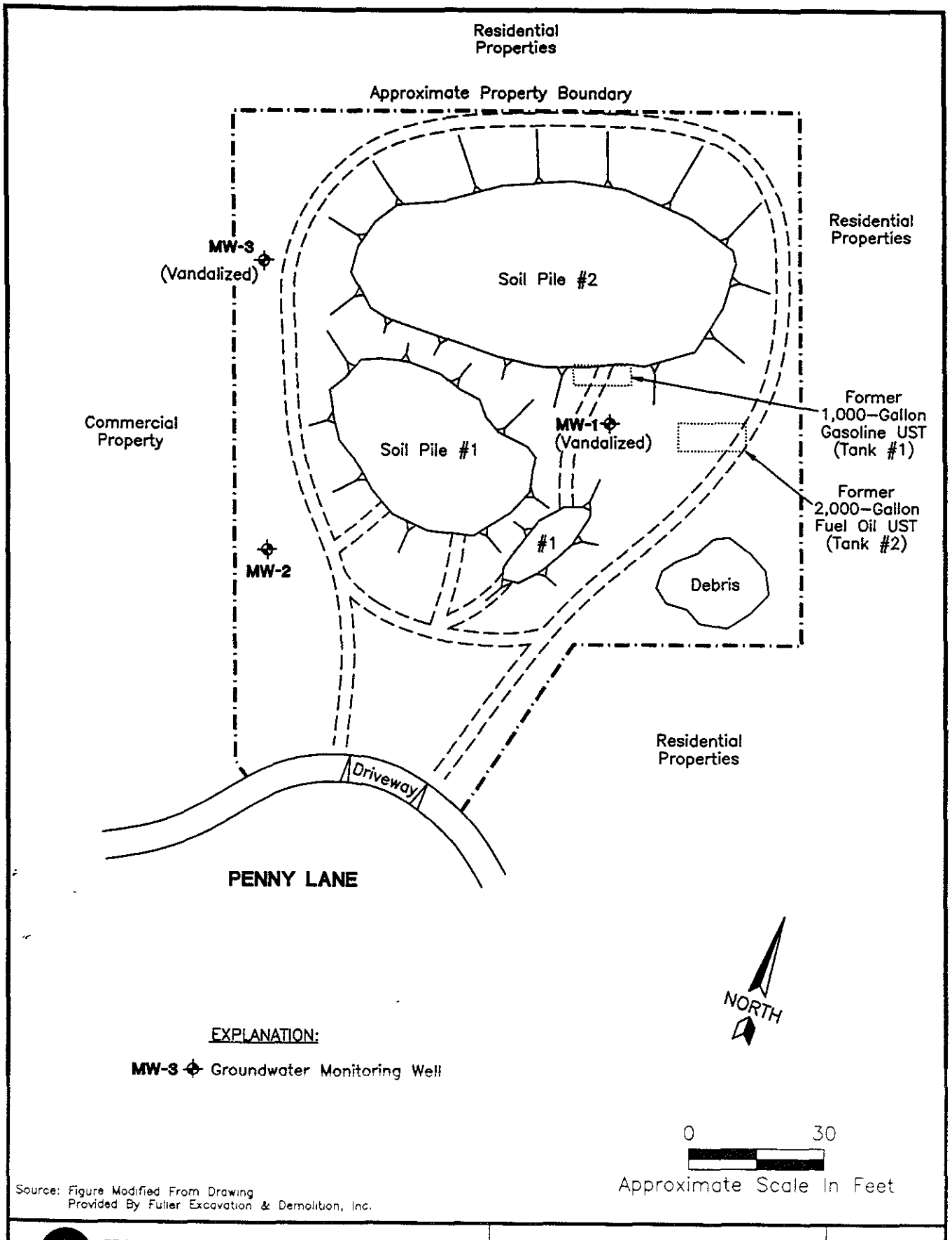
Project Number: 16001 41	Drawn By: D. Alston
Prepared By: K Matelk	Date 05/98
Reviewed By G Barker	Revised Date.

SITE VICINITY MAP

FORMER MINAMI NURSERY SITE
PENNY LANE
SAN LORENZO, CALIFORNIA

FIGURE

1



Source: Figure Modified From Drawing Provided By Fulier Excavation & Demolition, Inc.

HORIZON ENVIRONMENTAL INC.

Project Number 16001.41	Drawn By: D. Alston
Prepared By: K Mateik	Date 05/98
Reviewed By G Barker	Revised Date:

SITE PLAN

FORMER MINAMI NURSERY SITE
PENNY LANE
SAN LORENZO, CALIFORNIA

FIGURE

2

TABLE 1
SOIL STOCKPILE SAMPLING DATA

Former Minami Nursery Site
Penny Lane
San Lorenzo, California

Sample Number	Date	TOG ppm	TPH-d ppm	TPH-g ppm	Benzene ppm	Toluene ppm	Ethylbenzene ppm	Xylenes ppm	MTBE ppm
SP-1 A,B,C,D	04/18/98	<50	1.9	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050
SP-1 E,F,G,H	04/18/98	96	2.6	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050
SP-2 A,B,C,D	04/18/98	210	15	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050
SP-2 E,F,G,H	04/18/98	570	51	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050
SP-2 I, J,K,L	04/18/98	500	53	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050

All measurements are in parts per million (ppm).

TPHd: Total Petroleum Hydrocarbons as diesel analyzed by EPA Methods 3550/M8015
TPHg: Total Petroleum Hydrocarbons as gasoline analyzed by EPA Methods 5330/M8015
Benzene, toluene, ethylbenzene, and xylenes (BTEX) analyzed by EPA Methods 5030/M602
MTBE: Methyl tertiary butyl ether analyzed by modified EPA Method 602 (M602)
TOG: Total Oil and Grease analyzed by EPA Standard Method 5520 C, D, and F
< : Less than the laboratory detection limit

TABLE 2
CUMULATIVE GROUNDWATER
MONITORING DATA

Former Minami Nursery Site
Penny Lane
San Lorenzo, California

Well Number	Monitoring Date	Depth to Water (Feet)	Casing-Top Elevation (Feet above MSL)	Water Table Elevation (Ft AMSL)	Field Observations	Flow Direction
MW-1	05/31/96	16.89	42.57	25.68	Noticeable Odor	NW
	06/04/96	16.92		25.65	Noticeable Odor	NW
	07/11/96	17.23		25.34	Noticeable Odor	NW
	08/26/96	17.59		24.98	Noticeable Odor	NW
	09/24/96	17.84		24.73	Noticeable Odor	NW
	10/31/96	17.97		24.60	Faint Odor	NW
	08/13/97	N.M.		N.C.	Well Vandalized	
	04/18/98	N.M.		N.C.	Well Vandalized	
MW-2	05/31/96	16.69	42.17	25.48	No Odor	
	06/04/96	16.65		25.52	No Odor	
	07/11/96	17.04		25.13	No Odor	
	08/26/96	17.31		24.86	No Odor	
	09/24/96	17.59		24.58	No Odor	
	10/31/96	17.72		24.45	No Odor	
	08/13/97	17.61		24.56	No Odor	
	04/18/98	15.75		26.40	No Odor	
MW-3	05/31/96	17.75	43.01	25.26	No Odor	
	06/04/96	17.77		25.24	No Odor	
	07/11/96	18.06		24.95	No Odor	
	08/26/96	18.37		24.64	No Odor	
	09/24/96	18.60		24.41	No Odor	
	10/31/96	18.69		24.32	No Odor	
	08/13/97	18.53		24.48	No Odor	
	04/18/98	N.M.		N.C.	Well Vandalized	

Wellhead Elevation based on benchmark: "HESP-BAR", a brass disc at the south end of the return on the southeast corner of the intersection of Hesperian Boulevard and Bartlett Avenue. Elevation taken as 43.73 feet above Mean Sea Level (AMSL), City of San Lorenzo datum.

Elevations in feet above Mean Sea Level (AMSL) N.M. = Not Measured
N C = Not Calculated

TABLE 3
CUMULATIVE ANALYTICAL DATA
FOR GROUNDWATER SAMPLES

Former Minami Nursery Site
Penny Lane
San Lorenzo, California

Well Number	Date	TOG ppb	TPH-d ppb	TPH-g ppb	Benzene ppb	Toluene ppb	Ethylbenzene ppb	Xylenes ppb	MTBE ppb
MW-1	06/04/96	1,800	<50	4,100	4.2	4.2	6.0	36	<0.5
	09/24/96	800	<50	4,700	4.5	2.4	12	21	NA
	08/13/97	NS	NS	NS	NS	NS	NS	NS	NS
	04/18/98	NS	NS	NS	NS	NS	NS	NS	NS
MW-2	06/04/96	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	09/24/96	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	08/13/97	1,300	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	04/18/98	<5,000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-3	06/04/96	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	09/24/96	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	08/13/97	<500	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	04/18/98	NS	NS	NS	NS	NS	NS	NS	NS

All measurements are in parts per billion (ppb). TOG measurements converted from parts per million (ppm) to ppb.

TPHd: Total Petroleum Hydrocarbons as diesel analyzed by EPA Methods 3550/M8015
TPHg: Total Petroleum Hydrocarbons as gasoline analyzed by EPA Methods 5330/M8015
Benzene, toluene, ethylbenzene, and xylenes (BTEX) analyzed by EPA Methods 5030/M602
MTBE: Methyl tertiary butyl ether analyzed by modified EPA Method 602 (M602)
TOG: Total Oil and Grease analyzed by EPA Standard Method 5520 C, D, and F
< : Less than the laboratory detection limit
NA: Not Analyzed
NS: Not Sampled

ATTACHMENT A

HORIZON ENVIRONMENTAL INC.
FIELD METHODS AND PROCEDURES

The following section describes field procedures that will be completed by Horizon Environmental Inc. (Horizon) personnel in performance of the tasks involved with this project.

1.0 HEALTH AND SAFETY PLAN

Field work performed by Horizon and subcontractors at the site will be conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP will be at the site and available for reference by appropriate parties during work at the site.

2.0 LOCATING UNDERGROUND UTILITIES

Prior to commencement of work on site, the location of underground utilities will be researched with the assistance of Underground Service Alert (USA). USA will contact the owners of the various utilities in the vicinity of the site to have the utility owners mark the locations of their underground utilities. Work associated with the boring and monitoring well installation will be preceded by manual hand augering to a minimum depth of 4 feet below grade to avoid contact with underground utilities.

3.0 SOIL EXCAVATION AND SAMPLING

Permits will be acquired prior to the commencement of work at the site. If a mobile laboratory is not available to analyze excavated soil, the soil will be evaluated using a field calibrated (using isobutylene) Thermo Environmental Instruments Model 580 Organic Vapor Meter (OVM) or equivalent instrument. This evaluation will be done upon arrival of the soil at the ground surface in the excavator bucket by removing the top portion of soil from the bucket, and then placing the intake probe of the OVM adjacent to the surface of the soil in the bucket. Field instruments such as the OVM are useful for measuring relative concentrations of vapor content, but cannot be used to measure levels of hydrocarbons with the accuracy of laboratory analysis.

Samples will be taken from the soil in the bucket by driving laboratory-cleaned brass sleeves into the soil. The samples will be sealed in the sleeves using Teflon sheets and plastic caps; labeled, and promptly placed in iced storage. If mobile laboratory or field subjective analyses suggest the presence of hydrocarbons in the soil, additional excavation and soil sampling may be performed, using similar methods If groundwater is encountered in the excavation, groundwater grab samples will be collected from the excavation using a clean disposable bailer. The groundwater samples will be collected as described below under "Groundwater Grab Samples". The excavation will be backfilled or fenced prior to departure from the site

Composite characterization samples will be collected from soil stockpiles generated at the site. A composite sample is four sample locations (as discrete samples) per composite. The composite characterization samples will be collected from the stockpiled soil by selecting random locations accessible around the soil pile, removing approximately six inches of soil, and driving a clean brass sleeve into the soil pile at the selected location. The number of samples collected will be based on the estimated amount of stockpiled soil. Generally, one composite soil sample is collected per 50 or 100 cubic yards of soil. All samples collected will be prepared and chilled for transport under Chain-of-Custody protocol, and sent to a State-certified laboratory for the analyses requested.

4.0 GROUNDWATER GRAB SAMPLES

Groundwater grab samples will be obtained from the excavation using a clean disposable bailer. The samples will be transferred to appropriate clean containers in such a manner as to minimize loss of volatile constituents, so that there is no headspace in the sample container and air bubbles are not present in the samples when they are inverted. If air bubbles are found, resampling will occur. The samples will be refrigerated and transported promptly to the laboratory.

5.0 SOIL BORING AND SOIL SAMPLING PROTOCOL

Soil borings and soil sampling will be performed under the supervision of a Horizon geologist. The soil borings will be advanced using a truck-mounted hollow-stem auger drilling rig.

To reduce the chances of cross-contamination between boreholes, downhole drilling equipment and sampling equipment will be steam-cleaned between borings. To reduce cross-contamination between samples, the split-barrel sampler will be washed in a soap solution and double-rinsed between each sampling event.

Soil sampling will be conducted in accordance with ASTM 1586-84. Using this procedure, a split-barrel sampler (California-type sampler) lined with brass sample sleeves is driven into the soil at approximately 5-foot intervals by a 140 pound weight falling 30 inches. The number of blow counts required to advance the sample 18 inches will be recorded at each sample interval.

Upon recovery, a portion of the soil sample will be placed in a plastic bag and sealed for later screening with an hNu type organic vapor meter (OVM). Another portion of the soil sample will be used for classification and description Generally, the bottom sample will be sealed in the brass sleeve and stored at approximately 4°C for transport to the laboratory. After the portion of the soil sample is placed in the plastic bag, it will be allowed to warm, inducing volatilization of petroleum hydrocarbon vapors The headspace vapors will be screened with the OVM. The highest observed reading will be recorded on the boring logs

6.0 GROUNDWATER DEPTH EVALUATION

Depth to groundwater will be measured to the nearest 0.01-foot using an electronic hand held water level indicator. The tip of the probe will be examined to evaluate whether a product sheen is present.

7.0 MONITORING WELL DEVELOPMENT / PURGING AND SAMPLING

Following installation, the wells will be surged with a surge block to remove fines from the sand pack. After surging, ten casing volumes of groundwater will be purged from each well using a bailer or centrifugal pump to remove sediment and enhance representative sample quality.

Groundwater sampling events conducted after the initial well development will be preceded by purging a minimum of three well casing volumes as described above. Purge water will be monitored for the parameters temperature, pH, and conductivity until stabilized. Wells will recharge to 80% before sampling. If wells dewater, they will be allowed to recharge for a minimum of one hour prior to sampling.

After the water levels within the wells stabilize, a sample will be collected with a clean disposable bailer. Samples will be contained in air-tight vials and then packed on ice and sent to the laboratory for analysis. Groundwater samples will be transported to the laboratory and analyzed within the EPA-specified holding time for requested analysis.

Each sample container submitted for analysis will have a label affixed to identify the job number, sample date, time of sample collection, and a sample number unique to that sample. Samples will be analyzed by a California-certified laboratory

A Chain-of-Custody form will be used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples will be shipped, the person in custody of them relinquishes the samples by signing the Chain-of-Custody form and noting the time. The Sample Control Officer at the laboratory will verify sample integrity and confirm that the sample was collected in the proper container, preserved correctly, and that there is an adequate volume for analysis.

8.0 WELLHEAD TOP OF CASING MEASUREMENT

The top of each new well riser will be measured to allow correlation of the groundwater levels at the site. The measured point on each well riser will be marked to help insure future groundwater level measurements are taken from the same location. All measurements will be measured relative to an arbitrary datum or benchmark to the nearest 0.01-foot using a surveyor level and graduated stadia rod. If using an arbitrary datum, one well riser will be assigned the arbitrary datum and the other well riser will be measured higher or lower relative to the arbitrary datum

ATTACHMENT B

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

MONITORING WELL OBSERVATION SUMMARY SHEET

~~Company~~ SITE	Minami Property	Job No.	16001.41
Location	End of Penny Lane	Date	04/18/98
City	San Lorenzo	Time	

Well I.D.	Total Well Depth	Depth to Liquid	Hydrocarbon Thickness	Measurement Point TOB or TOC	Comments
MW-1	NM	NM	NM	N/A	Vandalized
MW-2	32.15	15.75	None	TOC	OK
MW-3	NM	NM	NM	N/A	Vandalized

Comments: Wells MW-1 and MW-3: tops of standpipes and well casings have been broken off with debris and sticks jammed down into well casings. Security fence gone.

Sampler: Ken Matuk Assistant:

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

MONITORING WELL DATA

Station No. Minami Property	Location San Lorenzo
Address End of Penny Lane	Job No. 16001.41
Well No. MW-2	Date 04/18/98

T.D.	- D.T.W.	x Well Diameter	x *VF	= Casing Volume
32.15	- 15.75	x 0.17	x 4	= 11.15 gal

*VF= gal./ft.	2" x 0.17 3" x 0.38	4" x 0.66 8" x 1.50

Gals. Purged	0	2.5	5.0	7.5	10.0	12.5	
Conduct.	496	501	490	481	474	469	
P/H	8.90	8.88	8.86	8.83	8.79	8.77	
Temp (°F)	66.9	67.6	66.2	65.9	66.0	66.1	
Turbid	Yes →					→	
Product/Sheen	No →					→	
Time	11:07	11:21	11:36	11:54	12:12	12:34	
Dissolved Oxygen	3.8	4.0	5.4	5.5	4.9	5.4	

Total Volumes Purged: 4.5 Purging Equipment: Stainless Steel Bailer

Total Gallons Purged: 12.5

Sample Containers: 7 Sampling Equipment: Disposable Bailer

H_2O Stored? Drum adjacent to MW-3

Comments: ~~N/A~~

Ken Matuska

~~Technician~~ Geologist

ATTACHMENT C

McCAMPBELL ANALYTICAL INC.
110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Horizon Environmental Inc. 5011 Golden Foothill Parkway, Suite 7 El Dorado Hills, CA 95762	Client Project ID: #16001.41; Minami Property	Date Sampled: 04/18/98
		Date Received: 04/20/98
	Client Contact: Ken B. Mateik	Date Extracted: 04/20/98
	Client P.O:	Date Analyzed: 04/20/98

04/27/98

Dear Ken:

Enclosed are:

1). the results of **6** samples from your **#16001.41; Minami Property** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Horizon Environmental Inc.	Client Project ID: #16001.41; Minami Property	Date Sampled: 04/18/98
5011 Golden Foothill Parkway, Suite 7		Date Received: 04/20/98
El Dorado Hills, CA 95762	Client Contact: Ken B. Mateik	Date Extracted: 04/20-04/21/98
	Client P.O:	Date Analyzed: 04/20-04/21/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
88257	W-MW2	W	ND,i	ND	ND	ND	ND	ND	92
88258	SP#1(A,B,C,D)	S	ND	ND	ND	ND	ND	ND	90
88259	SP#1(E,F,G,H)	S	ND	ND	ND	ND	ND	ND	100
88260	SP#2(A,B,C,D)	S	ND	ND	ND	ND	ND	ND	100
88261	SP#2(E,F,G,H)	S	ND	ND	ND	ND	ND	ND	101
88262	SP#2(I,J,K,L)	S	ND	ND	ND	ND	ND	ND	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg and all TCLP and SPLP extracts in ug/L

i) chromatogram sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline? e) TPH pattern that does not appear to be derived from gasoline. (Note: f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
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Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Horizon Environmental Inc. 5011 Golden Foothill Parkway, Suite 7 El Dorado Hills, CA 95762	Client Project ID: #16001.41; Minami Property	Date Sampled: 04/18/98
		Date Received: 04/20/98
	Client Contact: Ken B. Mateik	Date Extracted: 04/20-04/22/98
	Client P.O:	Date Analyzed: 04/20-04/22/98

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)[+]	% Recovery Surrogate
88257	W-MW2	W	ND,i	101
88258	SP#1(A,B,C,D)	S	1.9,g	95
88259	SP#1(E,F,G,H)	S	2.6,g	97
88260	SP#2(A,B,C,D)	S	15,g	103
88261	SP#2(E,F,G,H)	S	51,g	103
88262	SP#2(I,J,K,L)	S	53,g	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP, STLC, SPLP extracts in ug/L.

[+] cluttered chromatogram; resulting in coeluted surrogate and sample peaks; or sample peaks coeluting with surrogate; elevated baseline; or surrogate has been diminished by dilution of original extract.

[i] The following descriptions of the TPH chromatogram are cursory observations and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant, b) diesel range compounds are significant; no recognizable pattern, c) aged diesel is significant, d) gasoline range compounds are significant, e) medium boiling point pattern that does not match diesel, f) one to a few isolated peaks present, g) oil range compounds are significant, h) greater than water immiscible sheen is present, i) liquid sample that contains greater than ~5 vol. % sediment.

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Horizon Environmental Inc. 5011 Golden Foothill Parkway, Suite 7 El Dorado Hills, CA 95762	Client Project ID: #16001.41; Minami Property	Date Sampled: 04/18/98
		Date Received: 04/20/98
	Client Contact: Ken B. Mateik	Date Extracted: 04/20-04/23/98
	Client P.O:	Date Analyzed: 04/20-04/23/98

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
88257	W-MW2	W	ND,i
88258	SP#1(A,B,C,D)	S	ND
88259	SP#1(E,F,G,H)	S	96
88260	SP#2(A,B,C,D)	S	210
88261	SP#2(E,F,G,H)	S	570
88262	SP#2(I,J,K,L)	S	500
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg and all TCLP, STLC, SPLP extracts in mg/L

i) higher than water immiscible sheen is present, ii) liquid sample that contains greater than ~5 vol. % sediment

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/20/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#88182)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	95.0	97.7	100.0	95.0	97.7	2.8
Benzene	0.0	9.7	10.5	10.0	97.0	105.0	7.9
Toluene	0.0	9.8	10.0	10.0	98.0	100.0	2.0
Ethyl Benzene	0.0	10.0	10.3	10.0	100.0	103.0	3.0
Xylenes	0.0	30.1	31.2	30.0	100.3	104.0	3.6
TPH(diesel)	0	147	151	150	98	101	2.8
TRPH (oil & grease)	0	24300	24300	23700	103	103	0.0

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/21/98-04/22/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#88182)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	93.6	94.9	100.0	93.6	94.9	1.4
Benzene	0.0	9.8	9.9	10.0	98.0	99.0	1.0
Toluene	0.0	9.9	10.1	10.0	99.0	101.0	2.0
Ethyl Benzene	0.0	10.0	10.2	10.0	100.0	102.0	2.0
Xylenes	0.0	30.1	30.8	30.0	100.3	102.7	2.3
TPH(diesel)	0	161	154	150	108	103	4.7
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
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QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/23/98-04/24/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#88182)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethyl Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPH(diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	0	24600	23000	23700	104	97	6.7

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
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QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/20/98 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#83158)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.690	1.785	2.03	83	88	5.5
Benzene	0.000	0.174	0.192	0.2	87	96	9.8
Toluene	0.000	0.186	0.186	0.2	93	93	0.0
Ethylbenzene	0.000	0.180	0.180	0.2	90	90	0.0
Xylenes	0.000	0.560	0.562	0.6	93	94	0.4
TPH(diesel)	0	288	283	300	96	94	1.7
TRPH (oil and grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/21/98 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#83158)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.703	1.689	2.03	84	83	0.8
Benzene	0.000	0.168	0.170	0.2	84	85	1.2
Toluene	0.000	0.176	0.178	0.2	88	89	1.1
Ethylbenzene	0.000	0.174	0.178	0.2	87	89	2.3
Xylenes	0.000	0.540	0.550	0.6	90	92	1.8
TPH(diesel)	0	295	298	300	98	99	0.9
TRPH (oil and grease)	0.0	35.8	37.3	35	102	107	4.1

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/22/98 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#83158)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.951	1.873	2.03	96	92	4.1
Benzene	0.000	0.206	0.202	0.2	103	101	2.0
Toluene	0.000	0.210	0.204	0.2	105	102	2.9
Ethylbenzene	0.000	0.214	0.204	0.2	107	102	4.8
Xylenes	0.000	0.646	0.618	0.6	108	103	4.4
TPH(diesel)	0	294	298	300	98	99	1.2
TRPH (oil and grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 04/23/98 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#83158)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Xylenes	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TPH(diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil and grease)	0.0	22.3	21.4	20.8	107	103	4.1

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

10997 xhol

McCAMBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: Ken Matek
Company: Horizon Environmental
5011 Golden Foothill Parkway, #7
El Dorado Hills, CA 95762
Tele: (916) 939-2170
Project #: 16001.41
Project Location: San Lorenzo
Sampler Signature: Ken Matek

Bill To: Fuller Excavating
3283 Luyung Drive
Rancho Cordova, CA
(916) 858-8300 95742
Fax: (916) 939-2172 FAX: -8301
Project Name: Minami Property
San Lorenzo
Alameda County

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
W-MW2		4/18/98	12:43	7		X					X				X	X	X														88257
SP#1 (A,B,C,D)		4/18/98		4			X				X				X	X	X														88258
SP#1 (E,F,G,H)		4/18/98		4			X				X				X	X	X														88259
SP#2 (A,B,C,D)		4/18/98		4			X				X				X	X	X														88260
SP#2 (E,F,G,H)		4/18/98		4			X				X				X	X	X														88261
SP#2 (I,J,K,L)		4/18/98		4			X				X				X	X	X														88262

ICE/T® ✓ GOOD CONDITION ✓ HEADSPACE ABSENT ✓ PRESERVATION APPROPRIATE ✓ CONTAINERS ✓ VOAS | O&G | METALS | OTHER

Relinquished By	Date	Time:	Received By:	
Ken Matek	4/20/98	8:07am	Jim Cluggish	4-20-98 8:07 am
Relinquished By	Date	Time:	Received By:	
Relinquished By	Date	Time:	Received By:	

Remarks:
Water Sample: 3-day turnaround as per Ed Hamilton