THRE PERFORMATION

CITY OF SAN LEANDRO

MEMORANDUM

CITY OF SAN LEANDRO

FIRE DEPARTMENT

TO:	Bill McCammon, SLFD	.1.11 6.3 1990
FROM:	Dan Sullivan, Renewal Coordinator	CITY OF SAN LEANDRO
SUBJECT:	Graffenstatte Property1696 Martinez Street Environmental Contamination Investigation	
DATE:	December 11, 1989	

The attached report was prepared by Geo Resources Consultants, Inc. It indicates that there may be contaminants in the soils and/or groundwater beneath the site on the property and recommends that testing be undertaken.

We have attempted unsuccessfully to interest Mr. Graffenstatte in pursuing a testing program. We would like to seek a means of requiring him to do so.

Please review the attached report and send it to Larry Seto at Alameda County with an appropriate request if you feel that may be productive. If you have a bettey idea, give me a call.

<

DS:kt

DJ.KL

Attachment: As stated.

cc w/o attachment: W. R. Rugg



Geo/Resource Consultants, Inc. GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS

CORPORATE HEADQUARTERS: 851 HARRISON STREET SAN FRANCISCO, CA 94107 TELEPHONE (415) 777-3177 FACSIMILE (415) 777-5623

REGIONAL OFFICES: SAN FRANCISCO SEATTLE TUCSON/PHOENIX WASHINGTON, D.C. 002

December 29, 1988 1434-00-0

Potentiel Buyer of

Mr. Graffenstatte

P.O Rox 97397

Tacoma hinsh

(206) 584-2600

98497

Mr. Walter Chang WESTLAKE DEVELOPMENT COMPANY, INC. 520 El Camino Real, Suite 840 San Mateo, CA 94402

RE: ENVIRONMENTAL ASSESSMENT FOR THE PARCEL AT 1696 MARTINEZ STREET SAN LEANDRO, CALIFORNIA

Gentlemen:

Transmitted herein is the Environmental Assessment report for the above referenced project. We refer you to the contents of this report for details.

We appreciate the opportunity to be of service to you for this project. If you have any questions or require additional information, please do not hesitate to contact us at (415) 777-3177.

Sincerely yours, GEO/RESOURCE CONSULTANTS, INC.

Mary &

Mary E. L. Loo Staff Environmental Scientist

Gregory T. Carbullido Manager, Environmental Programs Division

GTC: cmd

ł

쁥

ENVIRONMENTAL ASSESSMENT FOR THE PARCEL AT 1696 MARTINEZ STREET SAN LEANDRO, CALIFORNIA

2

.

4

.

.

ţ

PREPARED FOR: WESTLAKE DEVELOPMENT COMPANY, INC. 520 EL CAMINO REAL, SUITE 840 SAN MATEO, CALIFORNIA 94402

PREPARED BY: GEO/RESOURCE CONSULTANTS, INC. 851 HARRISON STREET SAN FRANCISCO, CALIFORNIA 94107

DECEMBER 1988

JOB NUMBER: 1434-00-0

-

TABLE OF CONTENTS

2

ż

í

ł

I

1.0	INTRODUCTION	1
	1.1 Site Description	1
	1.2 Site Walk-Through	1
2.0	OWNERSHIP AND AGENCY RECORD REVIEW	5
	2.1 Site Ownership	5
	2.2 Review of Liquid Gold Oil Facility Investigation Files	<i>й</i> б
	2.3 Underground Storage Tanks and Lea	ks 8
3.0	AERIAL PHOTOGRAPHIC INTERPRETATIONS	13
4.0	SEISMICITY	15
	4.1 Regional Seismicity	15
	4.2 Local Seismicity	17
5.0	GEOLOGY	18
	5.1 Regional Geologic Setting	18
	5.2 Local Geology	19
6.0	HYDROGEOLOGY	19
	6.1 Regional Hydrogeologic Setting	19
	6.2 Local Hydrogeology	21

Geo/Resource Consultants, Inc.

•

.....

7.0	CONCLUSIONS	21
8.0	RECOMMENDATIONS	25
9.0	REFERENCES	27

LIST OF FIGURES

Figure 1	Vicinity	Location	Map
----------	----------	----------	-----

Figure 2 Site Location Map

.*

- Figure 3 Aerial Photographic Interpretations Sketch
- Figure 4 Major Historic-Active Faults and Potential-Active Faults in the San Francisco Bay Area
- Figure 5 Site Geology Map
- Figure 6 Generalized Geologic Cross Section
- Figure 7 Local Ground Water Contour

Sketch '

APPENDICES

Appendix A	Liquid Gold Investigation Files
Appendix B	Regional Water Quality Control Board Fuel Leak Files

- ----

Geo/Resource Consultants, Inc.

-

.....

14

December 29, 1988 1434-00-0 Page 9 of 27

Hydrocarbons (TPH) (gasoline). The results of soil analyses under the second tank did not indicate a high concentration of Three soil samples were collected from the underlying soil TPH. following the removal of a third gasoline tank. Results from the analysis of these samples indicated TPH concentrations of 970 to Upon removal of a fourth tank containing regular 2080 ppm. gasoline, a hole was discovered in one side of the tank. Soil samples analyzed from the excavation of the fourth tank indicated gasoline concentrations of 920 to 5800 ppm. Toluene concentrations in a sample collected from the fourth tank area was in excess of 1200 ppm.

Due to the high TPH concentrations found in the samples collected around the third and fourth storage tanks, a groundwater monitoring investigation was initiated at the site. In addition, quarterly reports evaluating the groundwater status are currently submitted to the RWQCB. According to the most recent report compiled by Groundwater Technology, Inc. (GTI), there is currently no indication of migration of the contaminant plume. However, groundwater monitoring will continue at this site until further recommendations are made by the RWQCB (See Appendix A, GTI Quarterly Monitoring and Sampling Report, May 26,1988).

Fast Gas gasoline station is located southwest of the study site. Considering the general hydrogeology of the area the Fast Gas facility is located downgradient to the study site, the direct impact of any existing contamination at the facility is unlikely.

PETERSON TRACTOR COMPANY

On June 13, 1985, the RWQCB reported a discharge of "oily wastes" from areas on the Peterson Tractor Company property. No further information was recorded in the RWQCB file regarding the contamination levels nor action taken to clean up the discharge.

The Peterson Tractor property is located at 995 Marina Boulevard, approximately 2 miles southeast of the study site. The hydrogeology of the vicinity indicates the groundwater gradient to be in a northeast to southwest direction. Therefore, it is unlikely that contamination found at the Peterson Tractor site would directly impact the groundwater at the study site.

183W: 1434-1

December 29, 1988 1434-00-0 Page 10 of 27

UNOCAL SERVICE STATION NO. 4845

Monitoring wells were installed at the UNOCAL Service Station No. 4845 located on Marine Boulevard and Alvarado Street. The wells following the were installed replacement of two leaking underground storage tanks and associated piping in April, 1987. Results from laboratory analyses conducted by Applied GeoSystems (using modified EPA 8015 for Total Volatile Hydrocarbons and Total Extractable Hydrocarbons, Standard Method 503E for Total Oil and Grease, and Modified EPA 8020 for Benzene, Toluene, Ethylbenzene, and Total Xylenes) indicated high concentrations of hydrocarbons in one soil boring and high levels of benzene, toluene, and xylene in the water samples collected.

On January 11, 1988, Applied GeoSystems submitted a quarterly ground-water monitoring report to the RWQCB (See Appendix A, Applied Geosystems Transmittal of Letter Report No. 87043-3, January 11, 1988). Results of laboratory analyses indicated a decrease in levels of hydrocarbon contamination since the initial monitoring was conducted in July, 1987. The report also noted that no floating product, sheen, emulsion, or product odor was detected in any of the samples collected. Applied GeoSystems recommended the discontinuation of monitoring activities at the facility provided the contamination levels remain low in subsequent quarterly reports.

Applied Geosystems' Report concluded that In July, 1988, according to the quarterly results, hydrocarbon concentrations were generally decreasing in the ground water with time. suggested Further, the report that the extent of the contamination is relatively limited due to the very low levels of hydrocarbon contamination found in the monitoring wells located on the margins of the UNOCAL property. Applied Geosystems recommended that, considering the most recent results of groundwater sample analyses, ground-water monitoring evaluations be changed from a quarterly to a semiannual basis for the following year (See Appendix A, Applied Geosystems Transmittal of Letter Report No. 87043-3, July 15, 1988).

The UNOCAL Service Station is located approximately two miles southwest of the study site, downgradient of the study site. The December 29, 1988 1434-00-0 Page 11 of 27

geographic location and hydrogeologic flow of the groundwater from the study site suggests that the probability of direct impact of contaminated groundwater from the UNOCAL facility on the study site is not likely.

ROBINSON AUTO WORKS (CHAMPCO)

In May, 1987, corrosion of a 500 gallon gasoline storage tank at the Robinson Auto Works facility caused fuel leakage into the soil. Using EPA Method 8015, Trace Analysis Laboratory, Inc.(TAL), found the concentration of volatile hydrocarbons in soils to be 1900 ppm (See Appendix A, TAL Laboratory Report for CHAMPCO Facility, May 5. 1987). Following excavation and removal of the contaminated soil, samples were collected and analyzed, and were found to contain TPH concentrations of 16 ppm and 2 ppm. Current RWQCB records indicate a satisfactory cleanup of the contaminated soil at the facility has been completed.

The Robinson Auto Works facility, located at 1860 Alvarado Street, is situated approximately three-fourths of one mile southwest of the study site. Although located downgradient of the study site, permeation of the contamination may impact the study site due to the proximity of the facility to the study site. However, considering the satisfactory soil cleanup at the Robinson facility, it is unlikely that contamination could directly endanger the study site.

DEL MONTE CORPORATION

In January, 1986, a field investigation was conducted to determine the extent of soil and groundwater contamination beneath the Del Monte site located on Alvarado Street in San Leandro. The potential existence of DDT in the soil warranted installation of ground water monitoring wells. At the facility, soil and ground water samples were collected and analyzed by California Water Labs, Inc. Results indicated that contamination was not detected above state standards, therefore, according to data compiled by Beta Associates, the facility was considered to be clear of all possible contaminants that could potentially affect the Del Monte facility. However, as stated in the report, December 29, 1988 1434-00-0 Page 12 of 27

Beta Associates recommended that any existing underground storage tanks not in use be removed and soil samples be collected upon removal (See Appendix A, Beta Associates, Soil and Ground Water Contamination Investigation, Del Monte Site, January 28, 1986).

In December, 1986, the Del Monte facility was demolished for redevelopment of the site. During the demolition operations, an underground bunker oil tank was observed. Groundwater monitoring was initiated, in addition, soil samples were analyzed for total petroleum hydrocarbons (TPH), benzene, toluene, and xylene (BTX).

A Quarterly Report was submitted by Beta Associates on April 13, 1987. The laboratory analyses of ground water samples found no indications of total dissolved petroleum hydrocarbons or benzene, toluene, xylene, ethylbenzene (BTXE) contamination. Consequently, Beta Associates recommended the permanent closure of the monitoring well, since the potential for migration of the contamination was considered to be "extremely remote" due to the predominant soil type of the area.

Currently, the Del Monte facility no longer operates from this location and the land has been redeveloped into separate light industrial operations (See Section 1.2). According to the Ground Water Monitoring Report by Beta Associates (March, 1987), any potential migration of the residual oil in the soil may be inhibited by the redevelopment of the land (i.e. the construction of buildings, asphalt paving, etc). Additionally, Beta Associates concluded that the development of the site may prevent the infilitration of surface water (from rains, etc.) that could carry any residual concentrations of oil down to the perched ground water table.

December 29, 1988 1434-00-0 Page 13 of 27

3.0 ABRIAL PHOTOGRAPHIC INTERPRETATIONS

The following discussion summarizes the aerial photographic interpretations of the site history. The aerial photographs reviewed span a time period of approximately 58 years, from 1930 to 1988. The site history is also illustrated in a sketch on Figure 3.

Air Photo Date

Description

02-14-30	This photograph displays two above ground tanks and the primary facility, a bulk oil transfer station on the study site. Because the photograph was taken at an oblique angle, the site specific location of these features was difficult to ascertain. A large commercial facility could be seen approximately 0.75 miles north of the site and a smaller commercial building was noted across the street, south of the property. Many residential buildings were noted east of the Southern Pacific Transportation railroad track, and to the west of the track, only a few residential buildings are present within agriculture land.
03-24-47	A warehouse is located in the southeastern portion of the study site with the long axis of the building trending north-south. Two above-ground storage tanks are present immediately south of the bulk oil transfer station. The Western Pacific railroad track parallels the northeastern property boundary line. In the central portion of this property line, a prominent darkened soil feature covers an area between the railroad tracks and the bulk oil transfer station warehouse. The residential building population appears to be dense to the east of the subject property. West of the property, commercial and residential buildings are relatively sparse.
07-02-59	This photograph reveals an additional storage tank approximately 30 feet northwest of the bulk oil transfer station

ţ



December 29, 1988 1434-00-0 Page 15 of 27

> trailer ramps and parking spaces. The number of commercial buildings has increased to the west of the property.

- 09-06-79 An additional above-ground storage tank was noted in this photograph between the bulk oil transfer station and the storage tank described above. The Bay Area Rapid Transit (BART) light rail tracks exist immediately east of the property. As discussed earlier, a dark soil feature was noted northeast of the transfer facility.
- 06-21-83 Minor residential building reconstruction was observed east of the site.
- 06-19-85 Although the bulk oil transfer station and storage tanks were visible in this photograph, minor site activity was noted. Features seen in previous photographs such as motor vehicles, stockpiles, and dark soil features were absent from the site.
- 03-30-88 The bulk oil transfer station and all four storage tanks are absent. The subject property appears to be graded showing no indication of what previously existed.

4.0 SEISMICITY

4.1 Regional Seismicity

The San Francisco Bay area has long been recognized as an area of high seismic activity. There have been numerous seismic events (earthquakes) that have been in the region caused by crustal movements along active faults.

Faults with the greatest potential for producing damage are the San Andreas, Calaveras and Hayward faults (See Figure 4). Potential seismic hazards associated with these active faults include strong ground shaking and surface rupture. Secondary effects could include liquefaction and ground settlement. In

Geo/Resource Consultants, 1

FORM 3-16(84)



December 29, 1988 1434-00-0 Page 17 of 27

historic times, several major earthquakes of Richter Magnitude* 7.0 or greater have occurred on these faults, causing major damage to structures and loss of lives (i.e., the earthquakes of 1836 and 1868 on the Hayward Fault, and the San Francisco earthquake of 1906 on the San Andreas fault).

The maximum credible earthquake intensities on these faults, expressed in Richter Magnitude are as follows: the San Andreas, 8.3 and the Calaveras and Hayward Faults, approximately 7.6. Intensity values on smaller potentially active faults in the area have not been precisely determined due to insufficient seismic data.

Surface rupture has been observed along the San Andreas fault at various locations. A maximum of 0.3 feet of vertical, and 20 feet (6 meters) of horizontal displacement has been recorded in Marin County (Bonilla, 1970).

Fault creep is defined as a slow but measurable movement known to occur along some segments of the San Andreas, Calaveras, and Hayward faults. Fault creep averaging 0.12-0.16 inches per year has been recorded on the Hayward Fault in downtown Hayward and Fremont (Galehouse and others, 1982). Tectonic creep has also been recorded on the Calaveras Fault within Santa Clara County. Periodic displacement rates of 0.2 to 0.4 inches per year have been monitored at several localities east of the Santa Clara Valley (Radbruch, 1968). Such tectonic creep may pose a potential long-term hazard to buildings or engineered structures within the active fault zones.

4.2 Local Seismicity

No known active faults cross the site, therefore, no surface rupture hazard or effects of fault creep are anticipated. However, seismic intensity maps by the U. S. Geological Survey,

Values according to the Richter Scale, A logarithmic scale developed by Charles Richter to measure earthquake magnitude by the energy released, as opposed to earthquake intensity as determined by effects on people, structures and earth materials.

December 29, 1988 1434-00-0 Page 18 of 27

(Borcherdt and others, 1975) indicate that violent ground shaking could occur on the site from movement along the San Andreas Fault or the Hayward Fault during a major earthquake event. Violent ground shaking is known to cause: collapse of brick and weak framed buildings, serious cracking of brick work and masonry in solid structures, and wave-like folds in asphalt covered streets.

On the basis of current seismological data, it is reasonable to assume that the site might be subjected to at least one moderate to severe earthquake during its lifetime. During such an earthquake, the hazard from surface rupture is slight, but strong seismic shaking may occur.

Differential settlement may also occur at the site if various types of alluvial deposits densify during strong ground shaking. If settlement were uniform, resulting damage would be minimal. However, due to variations in the physical and spatial properties of subsurface materials (i.e., grain size, degree of consolidation), settlement is generally non-uniform and the resulting structural damage may be extensive.

Differential settlement can also occur liquefaction, from typically resulting in more settlement severe than from densification alone. Analyses indicate that the potential for failure of the ground surface (either vertically or laterally) by subsurface liquefaction varies from low to high in alluvial areas of San Jose. Obtaining site-specific information regarding settlement in the San Leandro area is not within this scope of work.

5.0 GEOLOGY

5.1 Regional Geologic Setting

The site lies within the East Bay Plain, approximately 1.5 miles west of the Diablo Range foothills. The East Bay Plain is comprised of unconsolidated alluvial sediments which were eroded from bedrock units to the east. The Franciscan Complex is the primary bedrock unit in the region and is exposed in the

183W: 1434-1

December 29, 1988 1434-00-0 Page 19 of 27

foothills of the Diablo Range, parallel to the Hayward fault zone. Major active faults in the area include the San Andreas Fault Zone, approximately 7.0 miles to the southwest and the Hayward Fault and Calaveras Fault Zones, approximately 1.8 miles and 12.0 miles southwest, respectively (See Figure 4). Secondary faults related to these major faults occur in mountainous areas and may extend beneath thick alluvial deposits underlying the valley.

5.2 Local Geology

A geologic map of Alameda County (Helley et al.,1972) indicates that the material underlying the surficial soils at the site consists of Holocene younger alluvial fan deposits (Qyf) (See Figure 5). These deposits consist of unconsolidated, moderately sorted, fine sand and silt ranging from 20 to 50 feet in thickness. Pleistocene older alluvial fan deposits underlie younger alluvium. Older alluvium is composed of weathered, weakly consolidated, poorly sorted, silt, sand and gravel (Qof). The maximum thickness of older alluvium is estimated to be approximately 1100 feet (Hickenbottom and others, 1988) beneath the San Leandro and San Lorenzo shore lines.

6.0 HYDROGEOLOGY

6.1 Regional Hydrogeologic Setting

Water-bearing units in the East Bay Plain consist of Pleistocene Merritt Sand and older alluvium, and Holocene younger alluvium, fluvial deposits, and interfluvial basin deposits. These water bearing units are hydrogeologic components of the San Leandro Cone as indicated by Hickenbottom and others in the Alameda County East Bay Plains study (1988).

Older alluvium is the primary water-bearing unit in the East Bay Plain area. In the Hayward area, the hydraulic conductivity ranges from 30 to 56 feet per day and transmissivity ranges from 1300 to 6300 square feet per day (Hickenbottom and others, 1988).

Geo/Resource Consultants, Inc.



1.0 INTRODUCTION

Geo/Resource Consultants, Inc. (GRC) has been retained to perform an Environmental Assessment for the parcel at 1696 Martinez Street in the City of San Leandro, California (See Figure 1). Throughout this assessment, the parcel at 1696 Martinez Street shall be referred to as the study site. The purpose of performing an Assessment is to investigate the past and present uses at the study site and surrounding areas to determine if the potential for hazardous materials contamination exists.

1.1 Site Description

ß

The study site is situated east of the United States Interstate 880 (U.S. I-880, Nimitz Freeway) off the Davis Street exit in San Leandro, California. Located on the corner of Martinez and Thornton Streets, the parcel is triangular in configuration, occupying approximately 12,000 square feet. The parcel is located on a block bounded to the north by Parrott Street, to the south by Thornton Street, to the east by San Leandro Boulevard, and to the west by Martinez Street (See Figure 2). The study site is currently vacant, however, various light industrial businesses continue to operate in the surrounding area. Many of these surrounding facilities are discussed in Section 1.2.

The topography of the study site is relatively level with elevations slightly decreasing from the northeast to the southwest.

1.2 Site Walk-Through

On November 30, 1988, a site walk-through was conducted at the study site and the surrounding area. The focus of a site and vicinity walk-through is to observe the area for potential

183W: 1434-1

Geo/Resource Consultants, Inc.



DATAPRINT N09994



December 29, 1988 1434-00-0 Page 4 of 27

I

sources of contamination on the site and within the immediate vicinity. Currently, the site is vacant of any structures, with scattered brush and debris covering the site.

During a site inspection conducted by the Department of Health Services (DHS) in May 1987, oil stains were observed on the grounds in the vicinity where above-ground storage tanks previously existed at the site. During the site walk-through conducted by GRC, no surficial indications of oil stains on the grounds were evident, however, according to DHS Toxic Division records, the property has been vacated since late 1987. Due to weather conditions (i.e. rain), the oil may have been absorbed into the soil or washed from the ground surface, resulting in the inability to detect any visual signs of surface oils.

The study site area primarily consists of light industrial operations. Businesses located on Thornton Street, south of the study site include: Shepard and Son, a painting and drywall company; Hawk Auto and Truck Repair; Mobile Hydraulic Equipment, Inc., assemblers of hydraulic equipment; MTC Auto Body and Paint Shop, an automobile body repair shop; and the Del Monte Agricultural Research Center.

The eastern portion of the parcel is bound by railroad tracks that are presently in operation. A small railroad gateoperations shed is located on the southeast portion of the study The railway tracks for the Bay Area Rapid Transit (BART) site. system run adjacent to the railroad tracks on the study site. The BART passenger loading station (San Leandro station) is located northeast of the study site. East of San Leandro Boulevard, the area is primarily residential including private homes, schools, and small grocery markets. A Grafco Gasoline Station and a Shell Gasoline Station are located on San Leandro Boulevard.

Businesses located to the west of the study site along Martinez Street include Kirkwood Cabinets, a cabinet making company; a Greyhound Bus Depot; CAL BEST PAK, Inc., a cardboard packaging company; and Pacific Coast Lab, Inc., manufacturers of custom ear molds for hearing aids. At the north end of Martinez Street, where Martinez Street joins W. Estudillo Avenue, a vacant brick December 29, 1988 1434-00-0 Page 5 of 27

facility is currently for lease. Previously, the entire block along Martinez Street was occupied by the Del Monte Corporation. This facility was used to process, package, and distribute Del Monte food products until 1987 when the property was subdivided.

2.0 OWNERSHIP AND AGENCY RECORD REVIEW

2.1 Site Ownership

A record review was conducted at the Alameda county Assessor's office to outline the history of land ownership for the study site. The study site is described by parcel number 2-1, as shown on Assessor's Map 75, Page 41 of the Alameda County Assessor's Parcel Map files (revised May 14, 1986, See Figure 2).

The study site was originally owned and utilized in 1930 by the Sunland Refinery Company, a bulk petroleum transfer station. In 1969, Mr. Carl Graffenstat of Grafco Oil Company purchased the property and continued to use the facility as a bulk oil transfer station. Graffenstat sold the property in 1979 to Mr. Bryan Fabian of Fabian Oil Company (later known as Liquid Gold Oil Corporation), who continued to use the facility as a bulk oil transfer station. In 1982, Fabian Oil Company leased the site to Refinery Service Company who maintained the same type of services as did the previous operations. The following year, Fabian Oil leased the facility to Lakewood Oil Company.

In 1984, the San Leandro Fire Department prohibited the continued operation of above-ground storage tanks within the San Leandro City limits. According to San Leandro Fire Department records, the above-ground storage tanks on the Liquid Gold property were requested to be removed in June, 1986 (communication with Mr. Robert Nolan, San Leandro Fire Prevention Department, December 13, 1988). Subsequently, in October, 1986, after repossessing the property from Mr. Fabian, Mr. Graffenstat contracted H & H Ship Service of San Francisco to remove the tanks from the facility. In 1987, the entire facility was demolished and the vacant property is currently for sale by Mr. Graffenstat.

183W: 1434-1

Geo/Resource Consultants, inc.

2.2 Review of Liquid Gold Oil Facility Investigation Files

As described in the previous section, the study site has been used as a bulk petroleum transfer station since 1930. At the site, used oils from service stations, machine shops, and various industries were stored until sold to used-oil refineries or reprocessed for fuel. In 1979, Mr. Bryan Fabian purchased the facility under the name Liquid Gold to store used lubrication oils.

Prior to the relocation of the Liquid Gold facility to the San Leandro site, Mr. Fabian maintained the Liquid Gold operation at two other locations: Oakland and Richmond, California. In 1980, the U.S. Environmental Protection Agency (EPA) identified the Liquid Gold facility in Richmond as a Superfund site due to preliminary evaluations conducted by the DHS Toxics Division. High concentrations of PCB's were found, due to improper oil disposal at the Richmond Liquid Gold facility. This information lead the DHS to believe PCB contamination could also occur at the San Leandro Liquid Gold facility (See Appendix A, "Site Inspection Report", Ecology & Environment (Contract Number: 68-01-6692, Report Number C(85)C285).

In October, 1983, Ms. Barbara Barry of the DHS conducted a site inspection of the San Leandro site. During her investigation, Ms. Barry noted numerous oil stains on the facility grounds, consequently, Ms. Barry collected soil samples in a few of the heavily concentrated areas. Results from soil analysis did not indicate high levels of PCB in the soil, however, high levels of lead were detected in two of the samples collected as well as various alaphatic hydrocarbons.

In January, 1985, at the request of the EPA, Ecology and Environment, Inc. (E&E) conducted a site investigation on the San Leandro Liquid Gold facility ("Site Inspection Report", E&E Contract Number: 68-01-6692, Report Number C(85)C285). According to the E&E Site Inspection Report, the focus of the investigation was to determine the existence of contaminants (i.e. PCB's and heavy metals) at the San Leandro site. Based on the information collected during their inspection, E&E recommended that no further action was necessary regarding the

December 29, 1988 1434-00-0 Page 7 of 27

1

San Leandro Liquid Gold site. E&E concluded that although a small amount of oil contamination was observed during site inspections, no PCB's were detected in the soil samples analyzed, therefore no apparent public health nor environmental threat can be related to this Liquid Gold facility.

On September 4, 1986, a "Warning Letter" from the EPA was sent to Mr. Fabian regarding compliance with EPA requirements on ownership of Hazardous Waste facilities (See Appendix A, EPA Warning Letter, September 4, 1986). The EPA requested biennial reports describing activities conducted on the hazardous waste facility. No indications of response to the EPA letter from Mr. Fabian is included in the DHS site mitigation file.

On April 4, 1987, Ms. Martha Williams, inspector from the DHS Toxic Substances Control Division, conducted an inspection of the Liquid Gold facility. The purpose of the inspection was to evaluate compliance to DHS standards for facilities that treat, store, or dispose of hazardous wastes (ISD Compliance). At the time of the inspection, the facility was non-operational. Although photographs were taken at the facility showing oil stains in specific areas, no soil samples were collected at the time of the inspection. According to the DHS "Evaluation Inspection Checklist for Closed Facilities" (See Appendix A, DHS Hazardous Waste Inspection Report, May 15, 1987), the Liquid Gold facility was closed without approval from the DHS. Furthermore, the whereabouts of the Liquid Gold Operation owner, Mr. Bryan Fabian, were unknown. Although the landowner at the time of the inspection was listed as Mr. Carl Graffenstat, it is not indicated in the inspection report whether or not Mr. Graffenstat was contacted during Ms. Williams' investigation. The extent of soil and groundwater contamination at the site was not established during Ms. Williams investigation. In addition, no indication of clean up activities was reported.

Communication with Ms. Barbara Barry of the DHS on December 2, 1988, revealed that the DHS Toxics Complaints Section has transferred the Liquid Gold case to the Alameda County Deputy District Attorney, Mr. Gil Jensen. The case was brought to the DA's attention to identify a responsible party who will assume responsibility for any contamination found on the site, as well December 29, 1988 1434-00-0 Page 8 of 27

as responsibility for clean-up activities. According to Mr. there is currently no Jensen, substantial evidence for determining the responsible party to pursue this case. The Deputy District Attorney's office has presently considered this case to be closed until further notice (communication with Mr. Gil Jensen, Alameda County Deputy District Attorney, December 13, 1988). However, according to the EPA Comprehensive Environmental Compensation, and Liability Act (CERCLA) Response, program database, the Liquid Gold file is currently open and awaiting further action and/or mitigation (Communication with Mr. Paul LaCourreye, EPA Database, CERCLA Program, December 14, 1988).

2.3 Underground Storage Tanks and Leaks

Underground Storage Tank Leak files were reviewed at the Regional Water Quality Control Board (RWQCB) for information regarding underground storage tanks in proximity to the study site. Based on these records, several facilities in the vicinity were investigated for potential hazardous materials and/or underground tank violations which may impact the study site. These facilities are described below.

FAST GAS STATION (KAYO OIL ENTERPRISES)

Four underground storage tanks were removed from the Fast Gas Gasoline Station, located southwest of the study site at 1088 Marina Boulevard. In January, 1987, soil samples were collected and analyzed by CHIPS Environmental Consultants (using EPA Methods 5020, 3550, and 8015 for soils) to determine the extent of soil contamination after removal of the four underground tanks.

In January, 1987, a 10,000-gallon waste oil tank was damaged upon removal from the grounds at the Fast Gas gasoline station, causing leakage of the waste oil into the underlying soil. Sampling results indicated concentration levels of waste oil at 195 parts per million (ppm) to 210 ppm. A second 10,000-gallon tank containing Super gasoline was also removed; soil analysis of samples taken in the area surrounding this tank indicated concentrations of 560 ppm and 620 ppm Total Petroleum

1

December 29, 1988 1434-00-0 Page 21 of 27

Hickenbottom and others (1988) suggest that wells developed in portions of the older alluvium generally have higher well yields than wells in the Merritt Sand or younger alluvium. The fluvial and interfluvial basin deposits, which are interfingered with the younger alluvium near the shoreline, are low to moderately permeable and are generally are less than 15 feet thick (See Figure 6).

6.2 Local Hydrogeology

In the site vicinity, ground water was measured at approximately 24 feet below the ground surface in a well located approximately 400 feet west of the site (well number 2s/3w-35b-3, see Figure 7). However, fluctuations of ground water levels may be as much as 12 feet (Hickenbottom and others, 1988). Fluctuations may be caused by seasonal trends or by pumping of the ground water for irrigation purposes.

Using data provided by the Alameda County Ground Water Study, a ground water contour sketch was drawn to help display the local ground water geometry (See Figure 7). Based on these contours, the ground water direction is toward the southwest with a gradient of approximately 0.03 percent.

The majority of the ground water contains biocarbonate with calcium and sodium as the major cations. The total dissolved solids content (TDS) concentration ranges from 300 to 1000 mg/L (milligrams per liter). "The ground water is suitable for most uses, although some treatment may be desirable for industrial and domestic uses because of the high dissolved solids concentrations" (Hickenbottom and others, 1988).

7.0 CONCLUSIONS

The parcel at 1696 Martinez Street in the City of San Leandro was investigated in the form of an Environmental Assessment. The Assessment included a brief site walk-through, a geological and hydrogeological review, and a business and record search. This

183W: 1434-1

Geo/Resource Consultants, Inc.

-5



DATAPRINT N09294

Π

U

Π



December 29, 1988 1434-00-0 Page 24 of 27

Assessment is dependant on the information made available to GRC by an applicable agency.

The contents of this report and the investigative procedures implemented during this program have been conducted in accordance with standard methodology practiced in this industry at this time. No warranty is hereby or otherwise implied. Additionally, during the course of this investigation, no samples were collected and/or analyzed for chemical constituents or physical properties and were not requested as part of this Scope of Work.

Based on review of the E & E, "Site Inspection Report" submitted to the EPA, it appears that no investigations have been conducted regarding the potential downward migration of petroleum hydrocarbons and metals into the shallow aquifer system. GRC does not concur with E & E's conclusion that based on the contaminants suspected at the site, "migration into the shallow aquifers below the site does not appear to be a concern." GRC believes the potential that of hydrocarbon and metals contamination exists and should be investigated prior to parcel Additionally stated in the E&E Report, the East Bay purchase. Municipal Utility District indicates that there are up to sixty single family domestic wells within 1-mile of the study site. There also appears to be various agricultural and industrial wells within the 1-mile radius. The study site appears to lie in an area of relatively shallow ground water (approximately 50-feet below land surface). Potential hazardous materials impact from the study site to the surrounding domestic and agricultural wells should be investigated prior to parcel purchase.

Based on review of the DHS "Hazardous Waste Inspection Report" filed on May 15, 1987, it appears that the previous business occupying the study site closed the facility without proper approval. The Report states that information supplied by 1983 employees of the Liquid Gold operation indicated that "oil was routinely disposed of to the ground inside this building." Additionally, the Report states that the extent of soil and groundwater contamination has not been established.

A "Warning Letter" issued by the EPA to the Liquid Gold facility on September 4, 1986 has yet to be addressed, according to

183W: 1434-1

Geo/Resource Consultants, Inc.

December 29, 1988 1434-00-0 Page 25 of 27

available information. As stated in the Letter, "According to 40 265.76. all owners and operators of interim status C.F.R. treatment, storage and disposal facilities (TSDs) are required to prepare and submit a biennial report by March 1 of even numbered years describing their facility activities during the previous years...Failure to achieve full compliance with the requirements outlined above (reference Appendix A) within this thirty (30) day period may result in an enforcement action by EPA under section 3008 of RCRA." As stated above, no records regarding compliance with the EPA's requirements are available and presumed to not have been completed. Additionally, based on conversations with Mr. Paul LaCourreye of the CERCLA Program, the Liquid Gold facility file is currently open and awaiting further action and/or mitigation.

8.0 RECOMMENDATIONS

Based on the information obtained during the course of the Environmental Assessment for the parcel at 1696 Martinez Street in the City of San Leandro, it appears that there may be potential hazardous and/or toxic materials contamination in the soils and/or ground water system beneath the site.

Based on available information, it appears that neither a conclusive soil and/or ground water investigation has been completed for the study site. Previous site activities such as above ground petroleum product storage, reprocessing of spent fuels and oils, general bulk loading activities may have attributed to the noted "oil spots" on the facility grounds. Potential migration from these contaminants (i.e. fuel products) into deeper soils and/or the shallow ground water system should be investigated to determine the impact to local domestic and agricultural wells in proximity to the site.

As stated in the Conclusions section of this report, the Liquid Gold file is still open with the EPA. Pending investigations regarding the closure of the site as well as soil and/or ground water sampling will most likely be required.

-7

183W: 1434-1

ľ

December 29, 1988 1434-00-0 Page 26 of 27

[

I

GRC strongly recommends that legal counsel be obtained to ascertain the potential responsibility of any mitigation and/or clean up activities required prior to the purchase of the parcel.

183W: 1434-1

· · · · · · · · · · · · · · · · ·

Geo/Resource Consultants, Inc.

December 29, 1988 1434-00-0 Page 27 of 27

9.0 REFERENCES

- Bonilla, M.G., 1970, Surface faulting and related effects, in Wiegel, R.G., editor, Earthquake Engineering: Prentice-Hall, Englewood Cliffs, New Jersey, p. 47-74.
- Borcherdt and others, Earthquake Intensity San Francisco Bay Region, California, 1975 U.S. Geological Survey, Map ME-709
- Galehouse and others, 1982, Changes in Movements Rates on Certain East Bay Faults, California Divisions of Mines and Geology. Special Publication 62, p. 239

Haines Criss Cross Business Directory, East Bay Edition, 1988

Hart, E.W., 1985, Fault Rupture Hazard Zones in California: California Division Mines and Geology Special Publication, p. 42, 24.

- Hazardous Waste and Substances Sites Lists, Office of Planning and Research, Office of Permit Assistance, September 1988
- Hickenbottom and others, "Geohydrology and Groundwater Quality Overview, East Bay Plain Area, Alameda County, California", Alameda County Flood Control District, 205 (j) Report, June 1988.

Dennis Maslonkowski and Others, "Groundwater in the San Leandro and San Lorenzo Alluvial Cones of the East Bay Plain of Alameda County", Alameda County Flood Control and Water Conservation District, 1984.

Pacific Bell Reverse Business Directory 1988

- Radruch, Dorothy H. 1967, Approximate Location of Fault Traces and Historic Surface Ruptures Within the Hayward Fault Zone Between San Pablo and Warm Springs, California, U.S. Geological Survey Map I - 522.
- Pacific Aerial Surveys, Stereo-paired Aerial Photographs, (black and white): (scales are approximate)

ALA-C16-1A (dated 02-14-30) AV11-05-23, 24, Scale 1" = 1666', (dated 03-24-47) AV337-07-42, 43, Scale 1" = 800' (dated 07-07-59) AV1750-07-36, 37, Scale 1" = 1000', (dated 09-16-79) AV2300-07-32, Scale 1" = 1000', (dated 06-21-83) AV2640-07-35, Scale 1" = 1000' (dated 05-15-85) AV-3268-07-35, 36, Scale 1" = 1000', (dated 03-30-88)

183W: 1434-1



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX 215 Fremont Street San Francisco, Ca. 94105

> In Reply T-3-2 Refer To: C(85)C285

2 2 JAN 1986

Mr. Carl Graffenstat, Owner Liquid Gold P.O Box 1713 San Leandro, CA 94577

Dear Mr. Graffenstat:

A preliminary site inspection was made of your San Leandro site on January 15, 1985. A copy of the investigation report is enclosed for your information.

Comments may be provided by you concerning any aspect of the report. In your response please refer to report number C(85)C285.

EPA routinely provides copies of investigation reports to State agencies. Such releases will be handled according to the basic rules governing business confidentiality claims contained in the Code of Federal Regulations (40 CFR Part 2). Any claim of confidentiality should be made within fifteen (15) working days from the receipt of this letter. EPA will construe a failure to furnish timely comments as a waiver of the confidentiality claim.

If you have questions concerning this report, please contact Jeff Rosenbloom, Superfund Programs Branch at (415) 974-7513.

Sincerely,

Kathleen 9. Shimmin

Kathleen G. Shimmin Chief, Field Operations Branch

Enclosure

Howard Huntyana



- .

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX 215 Fremont Street San Francisco, Ca. 94105

LETTER OF INTRODUCTION

This is to certify that Steve Wisbaum, of Ecology and Environment, Inc., whose signature, photograph, and physical description appear below, is a duly authorized consultant for the Environmental Protection Agency. It is requested that, upon presentation of this letter, he be allowed to:

a. enter any facility maintained by any person where hazardous wastes are generated, stored, treated, disposed of or transported;

b. collect samples from your facility of any hazardous wastes and samples of any containers;

c. have access to and to copy all records relating to such wastes;

d. determine compliance with any effluent limitation or other limitation, prohibition or effluent standard, pretreatment standard, standard of performance, levels of performance, sanitary landfill criteria, standards applicable to waste generators, transporters, and owners and operators of hazardous waste treatment, storage and disposal facilities, or other standards, any permit, compliance order, or court order issued pursuant to the Resource Conservation Recovery Act;

e. talk to employees concerning waste management practices;

f. determine compliance with Section 311 of the Clean Water Act.

The statutory basis for these inspections is contained in Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980; Section 3007 of the Resource Conservation and Recovery Act; Section 114 of the Clean Air Act; Section 9 of the Federal Insecticide, Fungicide and Rodenticide Act; Section 3 of the Toxic Substances Control Act; and Section 308 of the Clean Water Act.

In addition, it is requested that he be allowed access to the scene of emergency incidents to:

a. monitor cleanup/mitigation operations and assess potential impacts of the incident on public health and the environment;

b. collect and analyze samples, and assess damages to natural resources and the environment.

Federal response to emergency incidents is authorized under Sections 311 and 504 of the Clean Water Act, and Section 7003 of the Resource Conservation and Recovery Act. Response actions are coordinated through the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300).

Requested industry information may not be withheld from EPA on the grounds that it is considered to be confidential or proprietary. EPA can protect information deemed to be privileged or confidential, trade secrets, and commercial or financial information (40 C.F.R. §§2.203, 2.204). Accordingly, please indicate any information which you consider to be privileged or confidential so that the Agency may take appropriate protective measures.

The regulations at 40 C.F.R. §2.211 preclude EPA employees from wrongfully using or disclosing any business information which was obtained during the performance of the employee's official duties. In addition. EPA employees must take all appropriate action to safeguard confidential business information from improper disclosure. EPA employees who violate these requirements are subject to dismissal, suspension or fines. Criminal action may be taken against EPA employees who willfully disclose business information. A contractor with EPA who obtains business information during execution of an EPA contract can disclose information only as allowed in the contract. EPA regulations on confidentiality of business information in 40 CFR Part'2 Subpart B require that the Contractor agree to the Clause entitled "Treatment of Confidential Business Information" before any confidential business information may be furnished to the Contractor. Violation of these requirements by a contractor may be grounds for suspending the contract or contractor employee.

Harry Seraydarian Director Toxics and Waste Management Division





ecology and environment, inc.

120 HOWARD STREET, SUITE #640, SAN FRANCISCO, CALIFORNIA 94106, TEL. 415-777-2811

International Specialists in the Environmental Sciences

January 11, 1985

Mr. Carl Graffenstat P.O. Box 1713 San Leandro, CA 94577

Dear Mr. Graffenstat:

As per our telephone conversation of January 11, enclosed is a sample letter of introduction identifying Ecology and Environment, Inc.'s (E&E) authorization to perform site inspections for the Environmental Protection Agency (EPA). E&E is presently a subcontractor to the EPA working under EPA Contract No. 68-01-6692 (CH2M Hill - prime contractor). Under our contractual relationship with EPA and CH2M Hill, E&E is responsible for assisting EPA in identifying and investigating "potential hazardous waste sites".

In accordance with Section 105 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA or Superfund) and Section 3007 of the Resource Conversation and Recovery Act of 1976 (RCRA), EPA is currently undertaking a nationwide inventory and screening of sites and facilities where hazardous substances have been disposed of or have otherwise come to be located. The Liquid Gold -San Leandro facility has been identified on EPA's inventory of sites as being a "potential hazardous waste site". Presently there is insufficient information available to determine if in fact there is a problem at the site or to provide a data base sufficient to determine what action to undertake next (i.e., additional investigation, remedial action, or no further action and removal from the potential hazardous waste site identification list).

The purpose of a site inspection is to gather information to assist us in this determination. This type of inspection generally consists of a meeting with company representatives followed by a tour of the facility. Following, is a list of the information we will want to be made available to us at the time of the inspection.
- o Overview of historical development of the site including operator and ownership history.
- o Types and dates of all activities that have occurred on site including oil and fuel storage.
- Area of site and number of buildings
- Site plan map and historical aerial photographs. If possible, we would like copies of these documents.
- Types of all hazardous materials (toxic, corrosive, highly volatile, radioactive, persistent, etc) that have been used as feedstocks, cleaning agents, etc. on site. Include dates and amounts.
- Types of all potentially hazardous wastes ever produced or stored on site including those presently stored on site. Include dates and amounts.
- o Description of past and present waste management practices including on-site treatment, storage and removal.
- Location and size of all on-site waste storage/disposal areas including surface impoundments, sumps, tanks, landfills, drum storage, injection wells, etc. Include dates and amounts.
- Descriptions, including dates and amounts, of all known or suspected spills/releases of potentially hazardous materials to the environment.
- Description of all past hazardous materials response activities such as contaminated soil removal, on-site burial, in-situ chemical treatment, sumps, oil seperation etc. Include dates and the regulatory agency monitoring the activity.
- Description of all Federal or State regulatory or enforcement action including soil or waste stream sampling, ground water monitoring, etc. Include dates, results and/or reports.
- o Description of all Federal, State and Local permits held including permit number, date issued, and expiration date.

As agreed, the inspection will take place at 9:30 A.M. on Tuesday, January 15. If you have any questions you can reach me at our office at (415) 777-2811.

Sincerely. Steven Wisbaum

Steve Wisbaum

SW/ma

HAZARDOUS SITI CONTROL DIVISION

Remedial Planning/ Field Investigation Team (REM/FIT) ZONE II

CONTRACT NO. 68-01-6692

> CH2M**II**HILL Ecology& Environment

.

Stran Store (Sin Billion

Site Inspection Report

Liquid Gold 1696 Martinez Street San Leandro, California



ecology and environment, inc.

120 HOWARD STREET, SUITE #640, SAN FRANCISCO, CALIFORNIA 94105, TEL. 415-777-2811

International Specialists in the Environmental Sciences

.

> Purpose: Site:

Site Inspection Report

1.1.1 28.C 09

Liquid Gold 1696 Martinez Street San Leandro, California

Date Investigation Began: January 15, 1985

TDD Number: R-9-8402-16a

Report Number:

C(85) C285 Steve Wisbaum

Ron Goloubow

FIT Investigators:

Report Prepared By: Steve Wisbaum

Report Date: JANUARY 27, 1985

Submitted to: Robert M. Mandel, Chief Field Inspections Section Toxics and Waste Management Division U.S. Environmental Protection Agency San Francisco, CA 94105

1.0 INTRODUCTION.

,In response to Environmental Protection Agency (EPA) Technical Directive Document (TDD) R9-8402-16a, Ecology and Environment, Inc.'s Field Investigative Team (FIT) conducted a site inspection of the Liquid Gold facility in San Leandro, California.

Liquid Gold was identified for evaluation under the Superfund program as a result of investigations conducted by the California Department of Health Services (DOHS), North Coast Region in 1980. There was a strong concern that contaminants such as heavy metals and PCB's might be found at the facility as was the case with the Liquid Gold Oil Corporation facility in Richmond, California. Since insufficient data existed to determine the nature and extent of the problem, FIT was assigned to gather the information necessary to define any potential threat to public health and the environment. The purpose of this report is to summarize the FIT investigative activities related to this site and to make recommendations as to future activities.

In gathering background information on Liquid Gold, FIT personnel contacted representatives of various state, regional and local agencies to assemble existing information on the facility. This information was used to help characterize the site prior to and following FIT's inspection efforts and is included in this report.

2.0 SITE HISTORY AND DESCRIPTION

Liquid Gold is located at 1696 Martinez Street on the corner of Martinez and Thornton Streets in San Leandro, California (see Figure 1.0 for Site Location Map). The facility encompasses a small triangular piece of property approximately 12,000 square feet in size and consists of a 3,000 square foot warehouse/office building and 4 storage tanks - 2 at 20,000 gallons, 1 at 15,000 gallons, and 1 at

-1-



Π

IJ

10,000 gallons (see Figure 2.0 for Facility Map). The site was used as early as 1930 by Sunland Refinery Company, as a bulk petroleum transfer station. In 1969 Mr. Carl Graffenstat of Grafco Oil Company bought the facility and ran a similar operation. The gasoline and diesel fuel would be delivered to the facility in 9,000 gallon tank trucks, off-loaded into the storage tanks and then emptied again into Grafco's own 1,500 gallon delivery trucks which serviced local accounts.

In 1979 the facility was sold to Mr. Brian Fabian who, under the name of Liquid Gold, began to use facility to store used lubrication oil. In 1982 Mr. Fabian leased the facilities to Refinery Service Company and in 1983 to Lakewood Oil Company. Both company's continued operating the facility as a used oil transfer station. In these operations used oil picked up from service stations, garages, machine shops, industries, etc. would be stored temporarily at the facility until it was sold to used oil refiners or as fuel. Lakewood Oil Company ceased operations in early 1984 and in October 1984, Mr. Graffenstat repossessed the facility from Mr. Fabian. Currently, the facility is not active and in December of 1984 all the tanks were emptied and cleaned by H&H Ship Service of San Francisco.

Due to the discovery of oil contamination at a Liquid Gold facility in Richmond, California, Barbara Berry of DOHS inspected and took samples at the San Leandro facility in October 1983. As indicated in sample results included in Appendix C, PCB's were not detected but levels of lead in two of the samples exceeded the California Assessment Manual (CAM) TTLC for classification as hazardous waste. Not surprisingly a variety of alaphatic hydrocarbons were also detected.

In order to avoid the difficulties encountered in relation to enforcement activities at the Liquid Gold site in Richmond, DOHS turned the San Leandro site over to the Alameda County District Attorney's office for clean-up enforcement. Due to the low priority given to the site, no further action had been taken to date by either the DOHS or the DA . However, FIT was informed that DOHS will be contacting the DA's office to review the status of enforcement activities and discuss plans for future action (Contact Log Entry 2/13/85 with Irwin Koelher - DOHS).

-3-



3.0 ENVIRONMENTAL SETTING

3.1 <u>Surrounding Area</u>

Liquid Gold is located in a mixed residential/commercial area in central San Leandro. The City of San Leandro (pop. 66,378) is bounded on the north by the City of Oakland (pop. 351,607) and on the south by the City of Hayward (pop. 98,683).

The site is located in the center of a broad alluvial plain which is formed between the Oakland Hills to the east and the San Francisco Bay to the west. The San Leandro Creek lies approximately 0.5 mile north of the site and empties into the San Francisco Bay approximately 2.0 miles downstream.

Soils on site have been classified as the Botella loam series. This is a very deep, well drained soil on low terraces and alluvial fans. This soil formed in alluvium that derived from sedimentary rock. Permeability is moderately slow (0.2 to 0.6 inch/hr.) and the slope is between 0 and 2 percent which results in a slow surface runoff (Soil Survey of Alameda County, California, Western Part, U.S. Soil Conservation Service). Annual precipitation is 17.74 inches.

3.2 Hydrogeology

Π

A

Liquid Gold is located in what has been defined as the San Leandro Cone subarea of the Alameda Bay Plain - East Bay Region Study Area. Groundwater in the San Leandro Cone occurs in aquifers which consist of discontinuous layers and lenses of sand and gravel that extend in places to at least a depth of 1,000 feet. These aquifers have been segregated into five distinct zones: 1) shallow aquifers within 50 feet of land surface; 2) aquifers between 30 and 100 feet in depth; 3) aquifers between 130 and 220 feet in depth; 4) aquifers between 250 and 400 feet in depth; and 5) aquifers deeper than 400 feet.

-5-

The shallow aquifers which are located throughout the San Leandro Cone are of limited areal extent. These unconfined minor aquifers are often tapped by small capacity irrigation and domestic wells less than 50 feet deep (<u>Groundwater in the San Leandro Alluvial Cone of the East</u> <u>Bay Plan</u> by Dennis Maslonkowski, Alameda County Flood Control and Water Conservation District, June 1984).

A clay layer 25 to 60 feet thick separates these shallow aquifers with the next major aquifer below. This next aquifer varies in thickness from 2 to 40 feet and is comprised of several interfingering sand and gravel lenses separated by thin clay beds 5 to 10 feet. Groundwater movement in this unit is <u>easterly</u> towards the San Francisco Bay.

East Bay Municipal Utility District's Backflow Prevention Program well list indicates there are up to 60 single family domestic wells within 1.0 mile of the site. One community well is 0.4 mile south-west of the site (Moutinho Rentals, 936 Thornton Street) and another community well is located 0.7 mile north of the site (Cecelia Court Water System, 1000 Cecelia Court).

In addition, data provided by Alameda County Flood Control District's Bay Plain Groundwater Study indicates there are-154 irrigation wells, 11 industrial wells, and 21 abandoned wells within 1.0 mile of the facility.

4.0 SUMMARY OF FIT SITE INSPECTION

ŀ

Π

The inspection of Liquid Gold was conducted on January 15, 1985 by FIT members Steve Wisbaum and Ron Goloubow. The inspection began with a meeting with Mr. Carl Graffenstat who is both a past and the current owner of the property. During this meeting, specific questions relating to historical development of the site, ownership, waste management, hazardous materials handling, etc. were addressed. Besides the information that is contained in this inspection summary,

-6-

all pertinent information given to FIT during this interview is included in previous sections of this report and/or on the site inspection form in Appendix A.

Following this meeting, FIT was given a tour of the facility by Mr. Graffenstat (photographic documentation is included in Appendix B). Following are the observations made by FIT:

- The loading/unloading area in front of the facility appeared clean but the gravel may be covering more serious oil staining below.
- The soil within the bermed area around the two tanks on Thornton Street was stained with oil.

Two submerged 55 gallon drums next to the same two tanks were observed. These were apparently installed to serve as rainwater sumps so that the workers would not have to get wet every time they entered the tank containment area.

- Concrete containment walls around all the storage tanks appeared to be intact with no visible cracks or breaks.
- Oil stains were also observed around the 15,000 gallon tank in north-east corner of site.

In addition to the above observations, Mr. Graffenstat offered the following information;

- o While under his ownership and operation, the facility was only used to store new motor oil in 55 gallon drums, regular and premium leaded gas, and diesel fuel.
- o There were no fuel spills on the property that he knew of.
- No solvents or hazardous materials were stored or handled at the facility.
- o There have never been any on-site waste disposal areas.
- There has been no hazardous materials response activities that he knew of by any state, federal or local agencies.



5.0 RECOMMENDATIONS AND CONCLUSIONS

As outlined in this report a small amount of oil contamination has been observed by DOHS and FIT personnel at this facility. The majority of this contamination appears to be confined to areas immediately surrounding three storage tanks which are enclosed by 8 foot high concrete containment walls. The exact vertical depth of the contamination is unknown but it is most likely confined to the upper 6 inches of soil. While high levels of lead and a variety of alaphatic hydrocarbons were observed in a few of the samples taken at the facility, no PCB's were detected. Given the insoluable nature of the metals and hydrocarbon contaminants, migration into shallow aquifers below the site does not appear to be a concert.

Although there does not appear to be any immediate threat to the environment or public health related to this facility, DOHS has referred the site to the Alameda County District Attorney to force clean-up of the oil contamination. In light of this information FIT recommends no further action.



APPENDIX A

4

EPA Site Inspection Report Form

 \mathbf{t}

1

i.

Purpose: Site Inspection Form EPA Form 2070-13

Site: Liquid Gold 1696 Martinez Street San Leandro, CA

Date of Inspection: January 15, 1985

TDD Number: R-9-8402-16a

Report Number:

0

FIT Investigators: Steve Wisbaum Ron Goloubow

Report Prepared By: Steve Wisbaum

Report Date:

Submitted to: Robert M. Mandel, Chief Field Inspections Section Toxics and Waste Management Division U.S. Environmental Protection Agency San Francisco, CA 94105

11egec

					, ,
POTENTIAL SITE PART 1 - SITE		ттам	NASTE S REPORT DN INFORMATION	ITE UT State	TIFICATION = UZ Site Number
STTE NAME AND LOCATION					
Sile Name (Lagel, common, or descriptive nam Liquid Gold	e of site)		, Route No., o 696 Martinez S	r Specific Locall treet	on Identifier
ity Sen Leandro		04 State CA	05 Zip Code 94577	06 County Alameda	07 County OB Cong Code Dist
	Private 🔲 i	B. Federal_	□ c.		ty 🔲 E. Municipal
	ULNET POT	t of Oaklank	J	G. Unkn	0WN
Date of Inspection 02 Site Status	UJ Years o	f Operation			
Active Honth Day Year		Beginning	1930 19 Year Endi	84 ng Year	Unknown
A. EPA B. EPA Contractor Ecology & (Name	Environment			Municipal Contrac	tor
E. State F. State Contractor (Name (Name	of firm)	- 🗖 G. Otr	191	(Specify)	
Chief Inspector Steve Wisbaum	U6 litle	FIT Leader		07 Organization E & E, Inc.	08 [elephone No. (415)777-2811
Other Inspectors Ron Goloubaw	10 TIELE	FIT Member		11 Organization	12 [elephone No.]
		11 Hender		<u>E & E, Inc.</u>	(415)777-2811
				······	
ite Representatives Interviewed	14 Title	15 7	ddress		() 16 [elephone No. ()
Mr. Carl Graffenstat	Owner	P.0.	Box 1713, Sa	n Leandro, CA	(415)483-4700
Mr. Brien Febian	Previous (wher P.O.	80x 723, Dist	olo, CA	(415)837-5355
					()
					()
					()
Coss Gained By 18 Time of Inspection	19 Weather	Londi Pirra			
(Check one) Permission 0930 hours					
Warrant	Clear ar	10 COO1			
INFORMATION AVAILABLE FROM				······	
Contect		02 Of (Age	ncy/Organizali	00)	03 (elephone No.
Person Responsible for Site Inspection Form Steve Wisbaum		U> Agency FIT	U6 Urganizat E & E, In	No.	
₽ ····································					Honth Day Year

. I1

l

POTENTIAL HAZARDOUS SITE INSPECTION 1. IDENTIFICATION UI State | 02 Site WASTE REPORT SITE 02 Site Number PART 2 - WASTE INFORMATION WASTE STATES, QUANTITIES, AND CHARACTERISTICS Of Physical States UZ Wasta Quantity at Site 03 Wasto Characteristics (Check all that apply) (Check all that apply) (Measure of weste quantitice must be independent) A. Toxic A. Solid Ξ E. Soluble E. Slurry I. Highly Volatile Tons_ B. Corrosive F. Infectious J. Explosive 8. Powder, Fines 🖸 F. Liquid Cubic Yarda_ . C. Radioactive 🛄 G. Flammable 🔲 K. Reactive C. Sludge 🔲 G. Gaa No. of Druma Unknown D. Persistent 🗍 H. Ignitable D. Other_ L. Incompat-(Specify) ible H. Not WASTE TYPE Applicable Category Substance Name 01 Gross Amount 02 Unit of Measure 03 Comments **ຊ**.ບ Sludge ί, Μ Oily Waste Waste oil has saturated soil Unknown around tanks SOL Solvents PSD Pesticides 000 Other Organic Chemicals 100 Inorganic Chemicals AD Acida BAS Bases HES Heavy Metals PAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers) Unknown Waste oil contains heavy metal Calegory 02 Substance Name 03 CAS Number 06 Measure of 04 Storage/Disposal Method 05 Concentration Concentration FLEDSTOCKS (See Appendix for CAS Numbers) stegory 01 Feedstock Name 02 CAS Number Category 01 Feedstock Name 02 CAS Number **FDS** FDS FDS FDS FDS FDS FDS SOURCES OF INFURMATION (Cite specific references, e.g., state files, sample analysis, reports)

Ŧ.

:

Site inspection

ľ	5178	L HAZARDOUS WASTES INSPECTION REPORT RIPTION OF HAZARDOUS CONDITIONS AND INCI	1 T E	UT SLALE		
11. HAZARDOUS	S CONDITIONS AND INCIDENTS			نسب کتار و بین وست		
03 Population	undwater Contemination n Potentiglly Affected:	02 Observed (Date: 04 Narrative Description	,	Poter		
Waste oil and	that has saturated soil on-site solvents which could enter shal	, especially near storage tanks, could low aquifers below the site.	be contar	lineted wit	h hea	vy motal:
01 [7] B. Surf 03 Population	Tace Water Contemination Potentially Affected:	02 005erved (Date: 04 Narrative Description	>	Polen	tial	A1104
01 🗍 C. Cont 03 Population	emination of Air Potentially Affected:	02 Observéd (Date: 04 Nerrative Description)	Poter	tial	
01 [] D. Fire 03 Population	e/Explosive Conditions a Potentially Affected:	02 Deserved (Date: 04 Narrative Description)	Poter	tial	Aller
Although #	n Potentially Affected:Unkno	02 00 Observed (Date: wn 04 Narrative Description latory agency personnel and employees o) of the nex	Poter t operator		-
03 Xrea Poten Soil aroun	amination of Soil stially Affected: d storage tanks is saturated wi	02 X Observed (Date: 04 Narrative Description th waste oil and possibly more oil has		Poten		
		• •		····		
03 Population There are	king Water Contamination Potentially Affected: <u>Unkn</u> at least 60 domestic wells with d by East Bay MUD.	02 0bserved (Date: own 04 Narrative Description in 1.0 mile of the site, however, most) domestic	Poten water in t		-
01 H. Work 03 Workers Pol	er Exposure/Injury tentially Affected:	02 Dbserved (Date: 04 Narrative Description	>	Pot ent	i el	Alleg
01 [] I. Popu 03 Population	lation Exposure/Injury Potentially Affected:	02 Deserved (Date: 04 Narrative Description)	Potent	.iel	Alleg

				IDENTIFICAT	
POTENTIAL HAZ SITE INSP PART 3 - DESCRIPTION OF	PECTION	REPORT	<u> </u>	Stete UZ S	
HAZARDOUS CONDITIONS AND INCIDENTS (Continued)		· · · · · · · · · · · · · · · · · · ·			
A Narrative Description	02 🔲 Observed	(Date:	, E] Potential	Alleged
K. Damage to Fauna Varrative Description	02 🔲 Observed	(Date:) [Potential	Alleged
1 L. Contemination of Food Chain Verrative Description	02 🔲 Observed	(Date:) t	Potential	Alleged
H. Unstable Containment of Wastas	02 Deserved	(Date:		Potential	Alleged
(Spills/Runoff/Standing liquids, Leaking drums) Spoulation Potentially Affected:	04 Nerrative D			_	
N. Damage to Offaite Property Varrative Description	02 Dbserved	(Date:)	Potential	Alleged
21 X O. Contamination of Sewers, Storm/Drains, WWTP	02 🗍 Observed	(Date:)	Potentie	Alleged
x-employee alledges he was told to dump 64,000 ge did not find any eidence of oil in sever or in Sa	allons of waste	oil into stora sem			•
P. Illegal/Unauthorized Dumping D4 Narrative Description	02 Dbserve	d (Date:	>	Potentia	Alleged
5 Description of Any Other Known, Potential, or All	eged Hazarda				
TOTAL POPULATION POTENTIALLY AFFECTED: Unknown					
COMENTS					
- SOURCES OF INFORMATION (Cite specific references.		les, somnle analus	18. 1800	rts)	······
Site inspection Cris Weeden - EPA Region 9	<u> </u>			-	
Barbara Berry - DOHS Berkeley					

•

i

ļ

÷

	POTENTIAL	HAZARDO	US W	ASTE S		
	PART 4 - 1	INSPECTI PERMITAND DESCRI		E P D R T		ate 02 Site Number
AMIL INFORMATION		يسببنا فالافاد بالبرادي المرابعين				
pe of Permit Issued heck all that apply)	02 Permit Number	03 Date Issued	04 Exp	iration Data	D5 Commenta	
1. MPDES						1
8. UIC						
C. AIR						·····
D, RCRA						
. RCRA INTERIM STATUS						
SPCC PLAN					····	
F. STATE (Specify)					•	
1. Local (Specify)						
I. Other (Specify)						****
l. None						
ITE DESCRIPTION						
-age/Disposal ck all that apply) . Surface Impoundment	02 Anount	0) Unit of 1	leasure	04 Ireatmen (Check a	ll that apply)	05 Other
3. Pilos				A. Incer	•	A. Buildings
. Drums, Above Ground	- -				ground Injectio	
). Tank, Above Ground	72,000	·····			cal/Physical	
- Tank, Below Ground	/2,000	<u>GA</u>		D. Biold	-	
. Landfill					Dil Processing	U6 Ares of Site
. Landfarm	······································			6	nt Recovery	
Open Dump				G. Other	Recycling/	Acres)
. Other				Recov	ery	
(Specify)				H. Other	(Specify)	_
4 tanks on-site are now	empty and have been	ñ clasned.	•			
TAINHENT einment of Wastes (Check						
. Adequate, Secure	3 8. Moderate	🔲 C. Inadaqu	uate, Po	or 🗖	D. Insecure. Il	nsound, Dangerous
ription of Drums, Diking	, Liners, Barriers,	, etc.		••••••		
estursted with waste oi ward through the soil in	l is enclosed by 8 ito shallow squifer.	foot concrete we	ils alt	hough contemi	nants may be	migrating
STBILITY						
Easily Accessible: X	Yes TINO					
enta interneta internet	· • • • •	inded by 9 fact to	t_h			1
CES OF INFORMATION (Cit	ated soil is surrou		agn conk	rete walls.	Access is gain	ed by stairway.
		SI SIGUE	1167 8	somple analys	is, reports;	
Site inspection						

•

		· <u> </u>					IDENTIFICATI	
•	POTENTIAL SITE	INSP	F C T I O N	DEDO	E SITI	a incident	State 02 51	
	PARI 2 - 11A1	ER, DEMOG	RAPHIC, AND E	INVI RONME	NTAL DATA	.		
DRINKING WATER SUPPLY	·	02 Stati	110				_	
ype of Drinking Supply, Check as applicable)						03 Dista	nce to Site	
	JRFACE WELL	ENDANGEI				۸	0.4	(mi)
Ion-Community (D. 🖸	E. 🗖	[F. []		0.2	
GROUNDWATER				- 				
roundwater Use in Vicini	ty (Check one)							
A. Only Source for Drinking	B. Drinking (Other source: Commerciel, I (No other wat)	ndustrial	. Irrigation		Commercial, Irrigation (Limited of available)	her source	al, 🔲 D.	Not Used Unusemble
opulation Served by Grou			1				ell <u>0.2</u>	
epth to Groundwater	US Direction of Gro Flow	oundwater	06 Depth to of Conce	Aquifer rn	07 Potent: of Aqui	ial Yield fer	08 Sole So Aquifer	9011
<50 (ft)	Unknown		<50	(ft)	17,00	00 (gpd)	T Yes	No No
escription of Wells (Inc	luding useage, depl	th. and lo	Cation relat:	ive to or	oulation at			
Yes Comments No			11 Discharge Yes No	Comment	8			
SURFACE WATER Urface Water (Check pne)		<u>_</u>		L				
A. Reservior, Recreation Drinking Water Sour	on 🔲 B. Irrigati ce Importan	ic needurc	mically 🏹 es	C. Comme	ercial, Indu	striel [] D. Not Cur Used	rently
fected/Potentially Affe	cted Bodies of Wate	ſ						
San Francisco B					Affe	cted (Distance to	Site
					E	I _	2.0	(mi
San Leandro Cre	والمتحدين والمتحديقين فالمتحد فيتان كالمتحد فتعتق				[I _	0.5	(ai
HOGRAPHIC AND PROPERTY	INFORMATION							
	- (0)		4-1		02 Distance	to Neares	at Populatio	n
No. of Persons	o (2) Miles of Site B. <u>20,000</u> No. of Persons	с. _с	(3) Miles of 50,000 No. of Perso	ł			0.01	(mi)
mber of Buildings Within	I WO (2) HLIES OF	Site	U4 Distance	to Nearci	at Urr-Site	Building		
<u></u>	500				0.01	-	ni)	
pulation Within Vicinity	of Site (Provide of site.	narrative	description of rel, village,	of nature	of populat		a vicialty	
•			-				•/	
te is located in a mixed	residential/comme	rcial area	a,					

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PARTS - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA	. IUENTIFICATION State 02 Site Number
RONMENTAL INFORMATION	
ebility of Unsaturated Zone (Check one)	
10-6 - 10-8 cm/sec 3 8. 10-4 - 10-6 cm/sec 3 C. 10-4 - 10-3 cm/sec 3 D. Gree	ter Than 10-3 cm/aec
ability of Bedrock (Check one)	
Impermeable ess than 10^{-6} cm/sec) B. Relatively Impermeable ($10^{-4} - 10^{-6}$ cm/sec) C. Relatively Permeable ($10^{-2} - 10^{-4}$ cm/sec) (G. Relatively Permeable ($10^{-2} - 10^{-4}$ cm/sec)	Very Permemble reater Than 10 ⁻² cm/sec
to Bedrock 04 Depth of Conteminated Soil Zone 05 Soil pH	
00 (ft) <u>Unknown</u> (ft) <u>6.4</u>	
recipitation 07 One Year 24 Hour Rainfall 08 Slope	
7.74 (in) 5.71 (in) Direction of Site Slope	Terrain Average Slope
North-West	<u> </u>
10	
s in <u>100</u> Year Floodplan Site is on Barrier Island, Coastal High Hazard	Aree, Riverine Floodway
12 Distance to Critical Habitat (of a	ndangered anerica)
CSTORATINE OTHER	• •
1.0 (mi) 8 (mi) Endangered Species:	
se in Vicinity	
RESIDENTIAL AREAS; NATIONAL/STATE PARKS, AGRICULTUR MERCIAL/INDUSTRIAL FORESTS, OR WILDLIFE RESERVES PRIME AG LAND	AG LAND
0.01 (mi) B. 0.06 (mi) C. (mi)	D(mi)
ption of Site in Relation to Surrounding Topography	
۱	i
	•
	1
) located in a broad alluvial plain. San Franciaco Bay is located approximately 1.0 mil .0 mile east.	R WAST AND Dekland
	C HOSE BIN GARTERS
1	ļ
	1
5 OF INFORMATION (Cite specific references, e.g., state files, sample applying applying the second state files, sample applying the second state files, sample applying the second state files.	
15 OF INFORMATION (Cite specific references, e.g., state files, sample analysis, report 11 Conservation - Alamada County Soil Survey	s)

*تد*نه

		PDTENT SI	IAL HAZARDOUS WASTE SITE I. IDENTIFICATION TE INSPECTION REPORT OT State DZ SILE NUE PART 6 - SAMPLE AND FIELD INFORMATION IIII DENTIFICATION
			PART 6 - SAMPLE AND FIELD INFORMATION
MPLES T		01 Number of	02 Samples Sent To
mple Typ	pe	Samples Taken	UZ Samples Sent To O3 Estimated Dat Results Avail
coundwate	er		
IT face Wi	ater		
aste			
lr			
unoff			
<u>pill</u>			
011			
eget at ion	۱		
	V-100-1-17-17-17-17-17-17-17-17-17-17-17-17-1		
De	SURENERIA	02 Conments	
OTOGRAPH	S AND HAP	'S	
	S AND HAP		
• 🖪			02 In Custody of Ecology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e 🕅 Yes		Aorial	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody of Ecology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
e X Yes No	Ground [04 Locat	Aorial ion of Maps Eco	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
Yes No	Ground [Aeriel Ion of Maps Eco LECTED (provide na	02 In Custody of Ecology and Environment, Inc. and U.S. EPA (Name of organization or individual) plogy and Environment, Inc. Arrative description)
Yes Yes No	Ground [Aeriel Ion of Maps Eco LECTED (provide na	02 In Custody ofEcology and Environment, Inc. and U.S. EPA (Name of organization or individual)
Yes Yes No KER FIELD	Ground [Aeriel Ion of Maps Eco LECTED (provide na	02 In Custody of Ecology and Environment, Inc. and U.S. EPA (Name of organization or individual) plogy and Environment, Inc. Arrative description)
Yes Yes No KER FIELD	Ground [Aeriel Ion of Maps Eco LECTED (provide na	02 In Custody of Ecology and Environment, Inc. and U.S. EPA (Name of organization or individual) plogy and Environment, Inc. Arrative description)



L				1. 10	ENTIFICATION
	ΡΟΤΕΝ S	ITIAL HAZAR 1 TEINSPEC PART8-OPER	LOOUS WAST TION REPO NATOR INFORMATION	E SITE TOTSE	ate 02 Site Number
DOCINE OPERATOR (P	ovide if diffe	rent from owner)	OPERATOR'S PARENT	COMPANY (If epplicat)le)
ie	,	02 D+8 Number	10 Name		11 D+B Number
					ET 13 SIC Code
set Address (P.U.	BOX, KIU #, et	c.) 04 SIC Code	12 Street Address	(P.U. Box, RD . et	
y	06 State	U7 Zip Code	14 City	15 State	16 Zip Code
ure of Operation 1	9 Nane of Own	30		······································	
PREVIOUS OPERATOR	5) (List most :	recent first; provid fferent from owner)	PREVIOUS OPERATOR	S' PARENT COMPANIES	(If applicable)
ac Bryan Fabian		02 D+B Number	10 Neae		11 D+8 Number
reet Address (P.O. P.O. Box 723	Box, RFD #, d	tc.) 04 SIC Code	12 Street Address	P.O. Box, RFD #, #	tc.) 13 SIC Code
ty Diablo	06 State CA	07 Zip Code 94528	14 City	15 State	16 Zip Code
ars of Operation	09 Name of Own Bryan	er During This Perio Fabian	a	,	
Lakewood 0il		02 D+8 Number	10 Name		11 D+8 Number
rest Address (P.O. Unknown	Box, RFD #, e	tc.) 04 51C Code	12 Street Address	s (P.U. Box, RFD #, e	tc.) 13 51C Code
£ÿ	D6 SERte CA	07 Zip Code	14 City	15 State	16 Zip Code
ars of Operation 1	09 Name of Own Bryan	er During This Perio Fabian	d		
me Refinery Servic	:08	02 D+8 Number	10 Name		11 D+8 Number ,
reet Address (P.D. 13331 North Hig		tc.) 04 SIC Code	12 Streat Addres	s (P.U. Box, RFD #, e	te.) 13 510 Code
ty Patterson	06 State CA	07 Zip Code	14 City	15 State	16 Zip Code
ers of Operation	D9 Name of Owr Bryan	er During This Perio Fabian	bd		
SOURCES OF INFORMA	TON (Cite spec	Ific references, c.	., state files, sam	ple analysis, reports	2
ite Inspection					

UN-SITE GENERATOR						
		02 D+B Number				
treet Address (P.U.	oox, kru #, «	etc.) 04 SIC Code				1
ity	06 State	07 Zip Code				1
OFF-SITE GENERATOR		02 D+8 Number	01 Name		02 0.00	
Unknown					02 040	Number
treet Address (P.U.	Box, RFD V, e	stc.) 04 51C Code	03 Street Address (P.U. Box,	RFD #, el	ic.)	D4 SIC Code
Ity	06 State	07 Zip Code	· O5 City	06 State	07 Zip	Code
		2 D+8 Number	01 Name		02 0+8	Number
treet Address (P.U.	Box, RFD #, e	tc.) 04 SIC Code	03 Street Address (P.U. Box,	RED	· · · · · ·	DA SUC COM
ity	06 State	07 Zip Code	05 City	06 State	07 Zip	Code
TRANSPORTER(S)		02 D+8 Number	01 Name		02 0.0	Number
Fabian 011					02 040	
P.U. Box 723	Box, RFD #, e	tc.) 04 SIC Code	03 Street Address (P.O. Box,	RFD #, et	2.)	04 SIC Code
ity Dieblo	06 State CA	07 Zip Code 94528	05 City	D6 State	07 Zip	Code
	· · · · · · · · · · · · · · · · · · ·	02 D+8 Number	01 Name		02 D+8	Number
reet Address (P.O.						
			03 Street Address (P.O. Box,	KrU #, et	c.)	D4 SIC Code
Ly	06 State	U7 Zip Code	OS CLEY	6 State	07 Zip	Code

		•
. PARI 10 - PA	ARDOUS WASTE ECTION REPORT STRESPONSE ACTIVITIES	SITE DI SLALE OZ SILE NUEDER
01 A. Water Supply Closed 04 Description	02 Date	03 Agency
01 B. Temporary Water Supply Provided D4 Description	02 Date	O3 Agency
01 C. Permanent Water Supply Provided 04 Description	02 Date	03 Agency
01 D. Spilled Material Removed 04 Description	. 02 Dets	03 Agency
01 E. Conteminated Soil Removed O4 Description	02 Dets	03 Agency
01 [] F. Waste Repackaged 04 Description	02 Date	03 Agency
01 G. Waste Disposed Elsewhere D4 Description	02 Date	03 Agency
01 H. On Site Burial 04 Description	02 Date	03 Agency
01 1. In Situ Chemical Treatment 04 Description	G2 Oste	03 Agency
D1 [] J. In Situ Biological Treatment	02 Date	03 Agency
01 K. In Situ Physical Treatment 04 Description	' 02 Date	03 Agency
01 1 L. Encapsulation 04 Description	02 Date	03 Agency
01 H. Emergency Waste Treatment 04 Description	02 Date	D3 Agency
-O1 N. Cutoff Walls 04 Description	02 Date	03 Agency
01 0. Emergency Diking/Surface Water Diversion 04 Description	02 Date	D3 Agency
D1 [] P. Cutoff Tranchas/Sump 	02 Date	O3 Agency
D1 2. Subsurface Cutoff Wall		O3 Agency
		والمراجع المائية والمراجعة والمراجعة المتلافة التي ومسروة والمحمد والمراجعة المراجعة والمراجعة والمراجعة

---7

	•		
PA PA	L HAZARDOUS WAS INSPECTION REP RT 10 - PAST RESPONSE ACTIVITIE	TESITEUTSLA DRT S	E DZ SILE N
(Lont inued)			
Of R. Barrier Walls Constructed 04 Description	02 Date	03 Agency	
01 5. Capping/Covering 04 Description	O2 Date	03 Agency	
01 T. Bulk Tankage Repaired 04 Description	· O2 Date	D3 Agency	
01 [] U. Grout Curtain Constructed 04 Description	02 Date	03 Agency	
01 V. Bottom Sealed 04 Description			
01 W. Gas Control 04 Description	· 02 Date		
01 X. Fire Control 04 Description	O2 Date		-
01 TY. Leachate Treatment 04 Description	02 Date		
01 Z. Ares Evacuated 04 Description	02 Dete		
01 1. Access to Site Restricted	02 Date	03 Agency	
01 2. Population Relocated 04 Description	02 Date	03 Agency	
01 3. Other Remedial Activities 04 Description	02 Date	03 Agency	
. SOURCES OF INFORMATION (Cite specific refere	Aces, c.o., et ata file		
	state files, sample	analysis, reports)	
		1	

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 11 - ENFORCEMENT INFORMATION	
CONCEPENT IN URMATION	
Past Regulatory/Enforcement Action X Yes No	
Description of Federal, State, Local Regulatory/Enforcement Action	
HS personnel inspected the facility in February 1980 and again in October 1983 at which time soil samples incentrations of lead (7,320 ppm, 1,070 ppm and 8,050 ppm). No PCB's were detected along with high the has been referred to Alameda County District Attorney for clean-up enforcement.	
RCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)	
	•

۔ آر

•

4

ļ

APPENDIX B

E

Ľ

L

Site Inspection Photographic Documentation



 View facing south-east of loading/unloading area. Retail store is in background across the street 1/15/85



 View facing east of loading/unloading area. Two 20,000 gallon storage tanks in background. 1/15/85.



4) View of plumbing and oil stained soil next to storage tanks. 55 gallon drum sunk into ground is seen in center of photo behind valves. 1/15/85



APPENDIX C

Contact Log and Reports

PRELIMINARY ASSESSMENT CONTACT LOG

Facility Name: Liquid Gold Facility ID: CAT-080013923

D

Name	Affiliation	Phone #	Date	Information
	Alameda County District Attorney's Office	(415) 881-6150	01/04/85	Will send me some cor- respondence between DOHS and individuals associated with this site (placed in file).
Irwin Koeler	DOHS - Berkeley	(415) 540-2745	01/07/85	No DOHS file found for site.
Receptionist	Century 21 Real Estate	(415) 687-2660	01/08/85	Left message for agen handling sale of 1696 Martinez Street so I can contact owner.
Bryan Fabian	Century 21 Real Estate	(415) 837-5355	01/09/85	Mr. Fabian returned m call from message lef with Century 21. Gav me number of Carl Graffenstat who is cu rent owner to set up site inspection.
Carl Graffenstat	Owner - Liquid Gold Site	(415) 483-4700	01/10/85	Set up inspection for 1/5/85 at 9:30 a.m.
Mike Rugg	California Dept. of Fish and Game	(707) 994-2011	01/14/85	No file for Liquid Gold.
Chris Weeden	EPA	(415) 974-8132	01/07/85	See Contact Report.
Irwin Koehler	DOHS	(415) 540-2745	02/13/85	See Contact Report.

PRELIMINARY ASSESSMENT CONTACT LOG

Facility Name: Liquid Gold Facility ID: CAT-080013923

Nате	Affiliation	Phone #	Date	Information
Donna Rolle Ker 1997 - Liller Liller	Alameda County Flood Control	(415) 881-6496 670-3485	01/14/85	Requested well and hydrogeologic informa- tion for area around Liquid Gold (received 1/18/85).
Jason Som	Alameda County Environmental Health	(415) 879-6794	01/15/85	John Hughes in Hayward office should have SWEEPS file listings of wells with greater than 200 service con- nections in San Leandro
Tom Peacock	Alameda County Environmental Health - Hazardous Waste Section	(415) 874-7247	01/15/85	Nothing in files for Liquid Gold.
Scott Yoo	East Bay MUD 、	(415) 835-3000	01/16/85	Requested listing of , wells in East Bay from East Bay MUD's "Backflo Prevention Program" (received 1/23/85).
Barbara B <mark>arry</mark>	DOHS	(415) 540-2054	01/23/85	See Contact Report.
Chuck Steinbergs	DOHS - Sanitary Engineering	(415) 540-2152	01/15/85	See Contact Report.
Bryan Fabian	Past owner - Liquid Gold	(415) 837-5355	01/18/85	See Contact Report.
				1

1

•

PRELIMINARY ASSESSMENT CONTACT LOG

Facility Name: Oakland Airport Facility ID: CAD-009235326

t

Name	Affiliatio	n	Phone #	Date	Information
Bart Simmons	DOHS	(415) 540-3003	01/25/85	Will check lab log to find sample report for Liquid Gold samples and send copy to me (received 2/11/85).
Jerry Marcott	DOHS .	(415) 540-2043	01/25/85	Rechecked file for Liquid Gold file. Nothing found except RCRA Part A.
Irwin Koehler	DOHS	(415) 540-2745	02/13/85	See Contact Report.
	5 1 3	•			
	1 1 7				
	1				
	1				

CONTACT REPORT

AGENCY:	DOHS-Sanitary Engineering
PERSON CONTACTED :	Chuck Steinbergs
PHONE NO .:	(415) 540-2152
FROM:	Steve Wisbaum
TO:	File
DATE:	January 5, 1985
SUBJECT:	Well Locations in Vicinity of Liquid Gold-San Leandro

Chuck Steinbergs is the DOHS Sanitary Engineer responsible for regulating community wells in San Leandro. The three community wells (greater than 5 service connections) his office knows about are:

- 1) Moutinho Rentals 936 Thornton Street San Leandro, CA.
- Trailer Haven Mobile Park 3299 East 14th Street San Leandro, CA.
- Cecelia Court Water System Cecelia Court San Leandro, CA.

Chuck also referred me to Scott Yoo of East Bay Municipal Water District for information on private domestic wells listed in East Bay MUD's Cross Connection Control Program.

•

Π
AGENCY: EPA-Region 9 PERSON CONTACTED: Chris Weeden PHONE NO .: (415) 974-8132 FROM: Stève Wisbaum

TO: File

DATE: January 7, 1985

SUBJECT:

EPA Site Inspection of Liquid Gold-San Leandro

Mr. Weeden was contacted for information concerning a site inspection he conducted of Liquid Gold-San Leandro. The inspection was conducted following a phone call from a man who said while he was under employment of Bryan Fabian he was directed to dump up to 64,000 gallons of contaminated waste oil into storm drains at this facility

Mr. Weeden stated however that after checking the storm drains at the facility and their discharge point into the San Francisco Bay, he could find no evidence to support this claim.

AGENCY: _ Liquid Gold

PERSON CONTACTED: Bryan Fabian

PHONE NO.: (415) 837-5355

FROM: Steve Wisbaum

TO: File

DATE: January 18, 1985

SUBJECT: Background information on Liquid Gold, 1696 Martinez St.

Mr. Fabian was contacted to supplement information obtained from Mr. Graffanstat during FIT's inspection of the Liquid Gold facility. The information obtained is as follows:

- Mr. Fabian bought the property from Mr. Graffanstat in 1979 and operated the facility until 1982 when he leased it to Refinery Service Company out of Modesto, CA.
- Mr. Fabian held a Waste Oil Transfer License from the Solid Waste Management Board. He gave the license number as CAT-080013923. This license was subsequently transferred to Refinery Services.
- The facility was operated as a used oil storage/transfer station. Oil was collected from service stations, garages, boat yards, etc., and brought to 1696 Martinez to be stored before being sold to oil re-refining operations or as fuel.
- There were no major releases of oil to the driveway or grounds.
- No hazardous wastes were hauled to and/or stored at the facility.
- Oil was analyzed for PCB's but none were found. No documentation available.
- Regional Water Quality Control Board (RWQCB) staff inspected the facility for oil contamination in nearby storm-drains but gave the facility a clean bill of health.

AGENCY:	DOHS
PERSON CONTACTED:	Barbara Barry
PHONE NO .:	(415) 540-2054
FROM:	Steve Wisbaum
то:	File
DATE:	January 23, 1985
SUBJECT:	Liquid Gold Background Information

Barbara Barry is the DOHS contact person for the Liquid Gold Facility. She has also been involved in the Liquid Gold - Richmond site on which significant waste oil contamination was found. In October 1983 Ms. Berry inspected and took soil samples at the Liquid Gold - San Leandro facility. Although she could not locate the inspection report she recalled that oil contamination was observed in the rear of the facility, outside the concrete walls surrounding the storage tanks along Thorton Street, within the concrete walls next to the storage tanks, and water ponded in front of the loading area. She could not recall the concentrations of contaminates found in the samples but she thought solvents and PCB's were found. Ms. Berry did indicate that because Mr. Fabian was not cooperating with the DOHS the case was referred to the District Attorney's Office.

When I asked Barbara who else I could talk to at DOHS to see what plans the agency has for further enforcement activity at this site, she referred me to Irwin Koeler - Complaints Section and/or Charlene Williams - Facilities Inspection Section.

AGENCY: DOHS Toxics - Complaints Section

ADDRESS: 2151 Berkeley Way, Berkeley, California

CONTACTED: Irwin Koehler

PHONE NO.: (415) 540-2745

FROM: Steve Wisbaum

TO: File

PERSON

DATE: February 13, 1985

SUBJECT: Status report on Liquid Gold - 1696 Martinez Street

As was suggested by Barbara Barry, FIT contacted Irwin Koehler for an official status report on the Liquid Gold site. I explained to Mr. Koehler that it appeared that this site had been "forgotten" by both DOHS and the District Attorney's office. Mr. Koehler expressed appreciation for our comments and indicated he will see to it that DOHS contact the DA's office to review the status of enforcement activities and plan a course of action.

APPENDIX D

ł

DOHS Sample Results

Hazar is Materials Laboratory 8493 LABORATORY REPORT Metals Date Received 10/4/82 12 bara Barry llector's Name Collector's Snuple # BB 26410 ing Location BB 27.2ch กภ The samples were extracted with 0.1 <u>M</u> citrate buffer at pH = 5.0tical Procedure: for 48 hours and analyzed by ICP. Liquids: uG/mL ¥ FF? CO Solids: Vr/c 8490 8492 8488 8191 8483 8481 8485 84.86 cior's BB267 BB268 269 BB 2.10 265 3266 nJe 🕼 -25.2 19.3 2.3 -9.59 senic 18,8 - 5,781 — 0.29 -Barius 61.8 0,85 130 110 XIX - 1.31 admiun 2.56 0,18 3,33 D.DOA 2.16 1.06 0.01 14.4 -Cobalt 12.1 10.5 '<u>2</u> U 0,02 6.02 15,7 160 47.0 0.04 0.14 173 - 20,0 hronium °-24,4 3041 76.31 13.4 158 104 0:18 93.3 26.5 0,38 -105 opper 115 41.l - 21.5 -26.5 19.0 0,02 - 20,8 -Mickel 30,6 318 0,01 23.7 030 7;320 38. Sag 318 070 61.5 6.82 8056 -Selenium 7.281-6.96 9,90 7,59 0.61 82 -2,590 <u>11.3</u> 591 1470 line 413 - 484 452 .770 55.2 z (-) = below limit of instrument detection analytic by AA (blank) = not determined 19/83 iduce no Supervisor's Signature Analyst's Jignatur

...7

	Califo Haza	Department of Heali rdous Materials Labor	HML # 8485 to	
		LABORATORY REPORT	PARTIAL	3473
Collector's Name	B. Ba	PCU's	Date Received by Laboratory	10-6-83
Sampling Location_	LIQUI		Collector's Sar	nple # <u>BB 264</u> to
	1016 11	ARTINEZ ST. SA	IN LEANDRO	272

Analytical Procedure: Solid and aqueous samples extracted with organic solvents. Oils diluted with hexane. PCB's determined by electron capture gas chromatography. Clean-up of extracts by thin layer chromatography. Refer to HML methods.

HML /	Collector's Sample #	PCB · Concentration	Calc. as Arochlor #	Detection Limit
8485	BB 244	······································	<u>.</u>	I PPM
8486	265			1 "
8487	266	<u>ــــــــــــــــــــــــــــــــــــ</u>		2.11
8488	267		· ·	I PPM
8489	268	مین میں کا میں بین میں بین میں کہ میں کہ اور کا میں اور کا میں کا می جان اور	+	0.1 PPM
8490	269			4 PPM
8491	270			4 //
8492	271		i	4 "
8493	272			4 11
te: (~)				

te: (-) = Not detected

(blank) = Not determined

Analyst's Signature Januard Garcha

Signature	of	Supervising	Chemist
 Tot -	1	- 	()
M.			

11/1/83 (Date)

California Department of Health Services HML <u># 5485</u> to Hazardous Materials Laboratory <u>8493</u>
LABORATORY REPORT
Collector's NameB. BarryDate Received by Laboratory10.5.83Sampling LocationLIGUINGOLDCollector's Sample # BB 264/to
Analytical Procedures Used: <u>Extracted with procedures and</u>
aualyzed by GC/FID and GC/MS
Reference: HMLS
ANALYSIS RESULTS:
collector's # HAVE # Extractable Org.
BB 264 8485 Not Detected (Detection himt 5" 265 8486 Not Det. (-11- 266 8487 Hydro carbons Detected (C6-C13)
267 8488 Not Det a (Det. hind - Smyg) 268 8489 Hydro Carbons Detected (6+(13) 269 8480 Hydro Carbons Det (Chr (13)
270 8491 Herdro Carbons Def (51+51)7
271 8492 Not Detected (D.J. Lint. Smylg) 272 8493 Hydro Carbons Det. ((B-(13)
Samples intain muntors tuydrocarbon peaks CiC/MS andysis of HML #8491 neverlo presence of allo + CiC/MS nesult Detuction limit is based on
Analysts' Signatures: J. Jamail Garchie 11/3/82 Juni 143-83
2 date date
California Department of Health Services - Hazardous Materials Laboratory

Γ

Q

.

•

٩

- تر.

ſ State of California-Health and Welfare Department of Health Services HAZARDOUS MATERIALS SAMPLE ANALYSIS REQUEST RIORITY pprovel. Delliame HML No Charlie (plain FIELD SECTION RT I: :. Collector 🔿 Date Sampled 10 Time 3:30 Pin Hours ctivity: 🗹 Enforcement D ASP H.W. Property C Super 🖸 Other OCATION OF SAMPLING: . . 1.17 Name # LIGUID Tel, No. ۶ Address 16 Α 94577 City Zip HML No. Collector's Type Of (Lab Only) Sample* Sample No. FIELD INFORMATION 264 26S 81 2.66 りるじ 987 268 10 269 ۸ nalysis Requested: 3 . hain of Custody: Jar. しいい 10/5 Signature Inclusive Dates C 1 Signature Title Inclusive Dates 91 0 0 ຝ A 1 Signature Title Inclusive Dates Signature Title Inclusive Dates Ŧ ipecial Remarks (e.g., duplicate sample given to company, etc.) ART II: LABORATORY SECTION Received By_ 10. Title. Date ample Allocation: 🗇 HML 🗆 SĆBL D LBL Other Date malysis Required. indicate whether sample is sludge, soil, etc. Örig.-Lab. Oup.-File Trip.--Inspector H5 8002 (9/82)

e or California-Health and Welfare Agency HAZA .. JOUS MATERIALS SAMPLE ANALYSIS H_ JEST Department of Health Services HML No 847 ecerimad PRIORITY inline Williame 1 tiga Explain) PART I: FIELD SECTION Collector. Date Sampled Time_3 30 Hours Activity: D Enforcement □ ASP H.W. Property Super C Other LOCATION OF SAMPLING: 1.60 Name Leg Tel. No. Address 169 co 11 c 94577 Number Street ·· • Collector's Type Of HML No. ZIP (Lab Only) Sample No. Sample* FIELD INFORMATION 4 9 70 He Luch : Analysis Requested: O. $\wedge \wedge a$ ••• ۰. •• ' • 0.9 ain of Custody: WAIS <u>y</u> y 11 5 10 Signatu Fitle. Inclusive Dates 13 \mathbf{C} 171 Signature Title Ø Inclusive Dates 0 0 Ŋ٢ 10 12 Signature Title Inclusive Dates Signature Title Inclusive Dates •• Special Remarks ÷ (e.g., duplicate sample given to company, etc.) ART II: LABORATORY SECTION Received By_ H 111 ۱۲ Title. Sample Allocation: Date HML C SCBL C LBL -Qthern Date D Analysis Required ŝ indicate whether sample is sludge, soil, etc. Orig.-Lab. Dup.-File Trip.-Inspector HS 4002 (9/82)



UNITED STATES ENVIRONMENTAL PROTECTION AGEINCY

REGION IX 215 Fremont Street San Francisco, Ca. 94105

> 0 4 SEP 1988 CERTIFIED MAIL RETURN RECEIPT REQUESTED

WARNING LETTER

CAT000046208

CONTRACTOR OF CONTRACTOR

FABIAN, BRIAN PLESIDENT 1696 MALTINEZ SI. SAN LEANDRU CA S

94577

Dear Hazardous Waste Facility Owner/Operator:

According to 40 C.F.R. 265.75, all owners and operators of interim status treatment, storage, and disposal facilities (TSDs) are required to prepare and submit a biennial report by March 1 of even numbered years describing their facility activities during the previous calendar year. All TSD facilities operating under a Part B permit are also required to submit biennial report by March 1 of even numbered years under 40 C.F.R. 264.75. Our records indicate that your facility has not submitted a biennial report to EPA or the state of California as required under existing regulations.

You are hereby requested to submit copies of the required report to both the California Department of Health Services (DHS) and EPA Region 9 within thirty (30) days of receipt of this letter. Enclosed is a copy of the required EPA form and instructions for your use. The addresses for the submittals are as follows:

> California Department of Health Services Toxic Substances Control Division Hazardous Waste Management Section P.O. Box 3000 Sacramento, CA 95812

U.S. EPA Waste Programs Branch RCRA Programs Section (T-2-1) 215 Fremont St. San Francisco, Ca 94105

Failure to acheive full compliance with the requirements outlined above within this thirty (30) day period may result in an enforcement action by EPA under Section 3008 of RCRA. You would be subject to liability for the imposition of penalties of

up to twenty-five thousand dollars (\$25,000) for each day of continued noncompliance in accordance with Section 3008 of RCRA.

If you have any questions regarding the reporting requirements, please call the appropriate California DHS Regional Office (see map).

Emeryville (415) 540-2043 Sacramento (916) 739-3145 Los Angeles (213) 620-2380

•

If you have specific questions about EPA waste codes, you may call EPA at (415) 974-7472 between the hours of 9 a.m. and 2 p.m. Monday thru Friday. The California DHS will not be able to answer questions about EPA waste codes.

DHS also requests that you complete and submit the attached Waste Stream Description Report in addition to the required biennial reports. Questions concerning the Waste Stream Description Report should also be directed to the appropriate DHS Regional Office.

Sincerely yours,

Harry Seraydarian Director Toxics & Waste Management Division

Enclosure

cc: Dwight Hoenig, CA DHS NCCS

Attachment 4

INSPECTION CHECKLIST

TOXIC SUBSTANCES CONTROL DIVISION DEPARTMENT OF HEALTH SERVICES

Furgose: 🗌 Annual Evaluation Inspection Closing Facility Inspection (Fill in questions marked "C") A Kum Evaluation Inspection - Facility, Closed menty Name: Liquid Gold Street: 1696 Martinez Street ZIP Code: 94577 city: San Leandro State: CA EFA ID Number: CATO800 13923 Report Number: 4/10/87 Date of Investigation: IPA Inspector(s): Martha Williams State Inspector(s): None present Facility Representative(s): A. Martha Williams Report Prepared By:

Form A -- Interim States Standards for Facilities That Treat, Store, or Elspose of Hazardous Waste

I. General Information

L' Operator: Liquid Gold Struct: 1696 Martinez St. City: San Leandro State: CA

ZIP Code: 945

3. OWNER: Carl Graffen stat

Street:

State: ZIP Code: City: Previous owner: Brian Fabian, Pres. Liquid Gold (Whereabouts Unknown) C. Site Activity: Generation: Complete Form B Small Quantity Operator: Complete Form D Transportation: Complete Form C Recycler: Complete Form E

5107258

Container (SO1) Tank (SO2) Waste Pile (SO3) Surface Impoundment (SO4)

Disposal

	Injection Well (D79)
	Landfill (D80)
	Land Application (D81)
	Ocean Disposal (D82)
_	Surface Impoundment (D83)

Process Design . Code Czpacity <u>Treatment</u> Tank (T01) Surface Impoundment (TO2) . Incinerator (TO3) Other (TO4)



-5-



Closure and Postclosure (Part 265, Subpart G)

Field

<u>148 10</u>

Time required for interviewing closure activities (e.g., time required for hazardous waste treatment, disposal, decontamination, and certification inspections).

- 4. Has the facility amended the plan whenever changes in operating practice or process design affect the plan or there is a change in the expected year of closure (265.112b)? (Plan must be amended within 60 days of the changes.)
- 5. Has the facility submitted a closure plan to the RA at least 180 days, before the date they expect to begin closure (265.112c)?
- B. Time Allowed for Closure
 - 1. Does the schedule for final closure allow for the following:
 - a. Treatment. removal. cr disposal of hazardous waste within 90 days after receipt of final volume of hazardous waste of after approval of closure plan (265.113a).



1.5

	•
HAZARDOUS WASTE	
INSPECTION REPORT	
DATE OF INSPECTION Anril 10.1	<u>98</u> 7
SITE CLASSIFICATION RCRA	
BRESS 1696 Martinez Street Major Non Major x EPA I.D. No CAT 0800 13923	<u> </u>
San Leandro Date of Submittal May 15, 1987	
Mosture Martha Williams Date of Subscore	
PURPOSE: Scheduled inspection to evaluate ISD compliance.	
BACKGROUND: Liquid Gold in San Leandro submitted a Part A to EPA on 12/10/80. They were RCRA-regulated because they reported that the oil they processed might contain solvents.	
The property at 1696 Martinez Street is vacant at present (Attachment 1), and the four tanks formerly on site (Attachment 2) were removed by H&H Ship Service in 1984.	
The following chronology summarizes the history of property ownership and leasing agreements of this site:	
1930 - Property owned by Sunland Refinery Company, a bulk petroleum transfer station.	
1969 - Carl Graffenstat purchased the property. His company, the Grafco Oil Company, continued doing business as a bulk oil transfer station.	
1979 - Property sold to Fabian Oil Company (d/b/a Liquid Gold), a bulk oil operation.	
1982 - Fabian Oil Company leased site to Refinery Service Company,another bulk oil operation.	
1983 - Property leased to Lakewood Oil Company, also a bulk oil operation.	
In 1984 Graffenstat repossessed the property from Fabian and called H&H in to remove the tanks. Graffenstat is currently offering the property for sale. Liquid Gold also acted as leesee of two other storage	
DATE OF REPORT 5/15/87	

sites, one in Oakland and one in Richmond. The Oakland site is on the state superfund list and the Richmond site has been the subject of detailed investigation and action on the part of the state because of extensive soil and water contamination.

Our files indicate that in January 1982 the RWQCB inspected Liquid Gold, however, I did not find an inspection report in our files.

In 1983 Barbara Barry, DHS, inspected the site and took samples from the yard. Sample results revealed lead and waste oil contamination in soils on site (Attachment 3). The case was then referred to the Alameda County District Attorney's office for clean-up enforcement. EPA inspected this site in 1984 and again in 1985. They recommended no further action on the part of the EPA in enforcement at this site, leaving this action to the D.A. and DHS. Since 1983, however, no enforcement action has been taken, and the statute of limitations has expired for both civil and criminal charges relating to closure without authorization and disposal of hazardous waste to the ground.

In 1986, the EPA notified Liquid Gold by mail of delinquent biennial reports; Liquid Gold had never submitted any.

No sampling has been done inside the building on site. In my conversations with Barbara Barry, prior to my inspection of 4/10/87, Barbara told me that in 1983 employees of Liquid Gold told her that oil was routinely disposed of to the ground inside this building.

The extent of soil and groundwater contamination, if any, at this site has not been established. The whereabouts of Brian Fabian, president of Liquid Gold, are not known.

OWNERSHIP: Brian Fabian, President

6 **1** 1

PERSONS PRESENT: Martha Williams, HMS, DHS.

Description of Facility: The property in question is approximately 12,000 square feet in size; the warehouse is approximately 3,000 square feet.

According to historical documents the waste handled was waste oil mixed with solvents. Waste oil was picked up at service stations, garages and other locations, stored temporarily at the facility, and sold to be recycled or used as fuel.

In their Part A, Liquid Gold described their processes as storage in tanks.

OBSERVATIONS: I conducted a drive-by inspection of the site on 4/10/87. The lot is now empty, except for the warehouse, and is not fenced. Our records indicate that the area was never

fenced. There was a sign offering the property for lease, with the referral number, (415) 483-4700. There were oil stains on and around the front of the warehouse, and I saw an oily sheen on rainwater puddles throughout the site. The warehouse was locked and inaccessible.

ATTENTION:

Attachment 1 - Photographs

Attachment 2 - Maps

Attachment 3 - Laboratory Results

Attachment 4 - EPA Checklist

Attachment 5 - Part A





3-5. Close ups of oil stained areas in front of building at 1696 Martinez St., San Leandro.



4/10/87 AU(R) 6 6. View of side yard at 1696 Martinez St., San Leandro. 7. View of back of property at 1696 Martinez St., San Leandro. 4/10/87 Au(2) T

-..

متسبر م

APPENDIX B

E

P

Ĺ

REGIONAL WATER QUALITY CONTROL BOARD

FUEL LEAK FILES

FAST GAS GASOLINE STATION

ţ

.

*

e.,

FUELLEAK CASE FORM
Review Date 3/3/33
Streetnumber 1022
Struct Marine Blud
County Number
Priority CEL 7.1.
Rank
Frimary Substance XCGG()
Secondary Substance 1203
Waste Dil 1/4CTUG
Case Type U G D
Status
Well Status Tal
Soil Affected Y U
Max. Soil Conc. (ppm) 2108
Max. Residual Soil (ppm) /000
Soil Status k
Groundwater Affected V
Max. Groundwater Impact <u>995999.9</u>
Groundwater Status
Depth to Groundwater 14.5
Drinning Water Affected V (U)
Drinking Water Status_/
Remailial Action 25 UK
Proov of Action Needed RA
Date of Last Corr. Co. 3, 8%
Date Case Received / 127,87
Case Evaluated By
5/21.2.2

.

-- --

ì

•	•	-		-	
		T	~5	С.	

					·····		
. UNDERGROUND STORAG			EU HELEA	SE (LEAK)	CONTAMINA	TION SITE R	EPORT
AF DELAS STATE OFFICE OF CHERGENCY SERVICES STATE TANK ID 2			1D 2				
		ES XINO	LIUIN		WIN	. . .	
EPORT DATE LOSA	L CA + 2 #		REGIONAL B	DARD CASE #		EPA IO #	
M'] M 20 2 JA Y 7 1					03	CPA ID #	
HANT OF HOIVIOUAL FILING PLOC	Die T	PHONE		SIG	NATURE		
PAUL E. TAMAR		(800)	692-3722	1	Coul . fr-	1.1	
ALTACATING LOCAL AC	ENLY [COMPANY OF		Jan Jr-	friko7	
XI CAR WORLBARD	լ՝ օք	GIGNAL BOARD	1			$\langle $	
ADDIESS		· ····································	1 1010 (DIL COMPA	μ/λ.Χ.		
EV BOX 190			Lodi			CA	
RONF		· · · · · · · · · · · · · · · · ·	CONTACT PE			STATE	95241 ZIP
		UNKNOWN				PHONE	
ADDRESS 1221 E Main				TAYLOF	·	1(<u>800</u>) 69	92-3722
STREET			Chatta			IN	37408
FACILITY NAME HE APPLICABLE			OPERATOR	¥		STATE	ZIP
FAST GAS STATION			1			PHONE	
APORESS	 		I KAYO C	DIL COMPA	NY	(415) 35	51-9509
1088 Marina BL	ND.		San Le	andro			
			ÇIT	Y İ		Alameda county	94577
					TYPE OF BUSINE		L FUEL STATIO
	RESIDENT	AL BRURAL			UNKNOWN	OTHER	
		<u>-</u>	CONTACT PE	RSON		PHONE	
SAN LIMANDRO FIRE DEPAK	THE JT	······································	JOSEPH	FERRERI	A	(415) 57	7-2210
							1-3318
SAN FRANCISCO BAY R.W.	<u>Q.C.B.</u>		TOM CA	LLAHAN		(415) 46	1-1255
SACRAMENTO							4-17.05
			[()	
CAS + (ATTACH EXTPA		NEEDED) NAME				QUANTITY LOS	T IGALLOWS
<u>10 8 10:0 6 6 1 91 191 191 191 191 191 191 191 19</u>	·	L	GASOLI	NE			
		,					
							f ⁻¹
1 1	NAC 2 VERE		TORY CONTRO) L	SUBSURFACE MO	ONITORING	UNKNOW
	JU THE ME		REMOVAL	L NUISANC	E CONDITIONS	OTHER:	
DATE DISTHANGE OF GAN			METHOD USE	D TO STOP DI	SCHARGE IC USA		
M H COL VI VI	<u>X] 0</u>	ык <i>ысын</i>	METHOD USED TO STOP DISCHARGE IGHECK ALL THAT APPLY			065 77 100	
	_		I TREPATR T			CHANGE PRO	
SCUPEERS OF DISCHARGE	<u>01.1</u>	(190; 8 v 17 v	the second division of				CEDURES
X TANK LESS E UNMAGE	A 21	TANKS ONLYCAP	PACITY 3 0	10,000	GAL CAUSE(S)		
		AUE 214	YRS. F.J. UI		1 OVERFIL	∟ (<u>Х</u>)со	RROSION
C EPIFIN LEAK		MATERIAL	·				
		(X) STEEL	[]] F16	ERGLASS	I' I''UPTURI	E/FAILURE []S	PLL
1 DTHER ISPECIEVE		()OTHER					
RESOUNCES AFFECTED	Y-5 NO	THREATENED		NATED CH	PILICE LETERAD	М [_]ОТНЕВ	
AND LAND			UNKNOWN		PLIES AFFECTED		UN- POP
SOIL WADDER ZONEL	X.		[]	PUBLIC DP	HIK Dr.	vi mi	
GROUNDAATER	- i i i X	ļ 1	F F	PRIVATE D	RINKING I .		· · · · · · · · · · · · · · · · · · ·
SURFACE AALEP OR TORU PRAIN	X '	· · t		WATER	1 ; 1	XI []]	[]) <u> </u>
PHUNDER OF BUILDY VAULT	x	:		INDUST DIAL		x) Γ.) (
OTHER STORAG	<u></u>	• 1		AGHE IS THE	• • • •	XI (1 (·) '
	(11) PAT	P DAIN DAME	· . ·		CIFYI [] [1 171 1	
			UNKNOWN				
COMPENS.	- <u></u>			ł			
Targeted exc	Wition	in the tank	pit base	d on lab	analysis of	soil	
	COURSE.						
Pendiation of	umeti	ves are to b	e determin	need with	R.V.O.C.B.		
1							
1							1



1285 Edmundson Ave Morgan Hill, Ca 95037

1470 OIL Enterprises P.O BOX 100 LODI, CA 05241

Witention: Faul Taylor

Subject: Field sampling and analysis at Kave Qil's FAST 649 Station, 1983 Marina Blud, San Leandre, CA on 1/22/97

Enclosed are the results for the analysis of soil semples taken from beneath excavated and removed gasoline storage tanks at the Kayo Oil's FAST GAS station, 1088 Marina Boulevard, Ban Leandro, CA on 1/22/87. The first soil semples were taken on 1/21/87 and after the results of the analysis were known it was decided to excavate further soil and take additional samples. The results of the second set of samples are enclosed in this report. These samples were taken in the four corners of the excavation hole. The first trace of ground water was noticed at approximately 16.5

Sampling was performed in accordance with approved methodology. The samples were obtained in appropriate containers which were sealed, chilled and transported to the laboratory for same day analysis.

Peportage

Submission to the Regional Water Duality Control Board and the San Leandro Fire Department should include copies of this report. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed for your convenience:

ۍ توري

Nater Quality Control Board San Francisco Bay Pegion 1111 Jackson Street Room 6040 Dakland, CA 94607 Attention: fpm Callahan

CHIPS Environmental Consultants

1285 Edmundson Ave Morgan Hill, Ca 95037

(408) 241-1828

01-22-87

JFM12-B:MARINA.KAY 210

PARO OIL Enterprises P.O.100 100 LOOI, CA 05041

Attention: Faul Taylor

Bubject: Field sempling and analysis at Kaup Oil's FAST 043 Station, 1038 Marina Blvd. San Leandro, CA on 1-21/37

Enclosed are the results for the analysis of soil samples taken from beneath excavated and removed gasoline storage tanks and one waste oil tank as well as composite soil samples of the excavated piles of soil. A map giving the location of the tanks and the samples taken is enclosed. A brief description of our observations during sampling is as follows.

The first tank removed was a waste oil tank. The tank was removed prior to our arrival at the site and soll from bereath the two ands of the tank was set aside and covered with plastic specting. Soil samples were taken from these two piles. The location of the tank on the enclosed map is only approximate as the area was being used to store excavated soil from the visition of the 3 large gasoline tanks. The waste oil tank was examined and found to have a large gash in it. This was related to to be helped of the tank of the beat from the second and found to have a large gash in it. This was related to show and the gash appeared to be a fresh gash. The tanks was 45 inches in diameter and 42 inches long. The tank appeared to be in good condition except for the fresh gash. Samples # 001012 (South end) and Samples #001019 (North end) were obtained from the uscavated earth that had been set aside.

The second tank removed was a 10,000 gallon steel Super Gasoline storage tank with the dimensions of 8 feet in diameter and 27 feet in length. The tank appeared to be in good condition with only mild corrosion on the bottom of the tank. There were no obvious holes in the tank. The bottom of the tank resided at a depth of 12 feet below grade and the following soil samples were obtained: Sample 4001310, South end near pump islands, Cepth 14 feet telow grade and Sample #001018, North end near Store. Depth 14 feet below grade.

The third tank removed was a 7500 gallon unleaded gasoline storage tank. This was a steel tank with an 8 foot drameter and

CHIPS Environmental Consultants

1285 Edmundson Ave Morgan Hill, Ca 95037

(408) 241-1828

244 inches long. The tank appeared to be in good condition with, only mild corresion at the bottom. There were no obvious holes in this tank. The bottom of the tank resided at a depth of 12 feet below grade and the following soil samples were obtained: Sample # 001016 South and near pump islands, depth 14 feet below grade. Sample # 001176, South and near pump islands, depth 16 feet below grade. Sample # 001312, North and near store, depth 14 feet below grade.

The fourth tank removed was a 10,000 gallon steel Regular gasoline storage tank with the dimensions of 8 feet in diameter and 27 feet in leigth. The tank appeared to be in good condition with only mild porrosion on the bottom of the tank. One hole was found at the bottom of the tank, on the seam at the end. The hole was approximately 1/4 inch in diameter. It was located at the corth end of the tank closest to the store. The bottom of the tank resided at a depth of 12 feet below grade and the following soil samples were obtained: Sample #001011, South end near pump islands, Depth 14 feet below grade and Sample #000989, North end near Store, Depth 14 feet below grade.

Two composite soil samples of the excavated soil pile were also obtained. The samples are numbered Sample #001229 and Sample # 001307. Fire Inspector Robert G. Lundstrom of the City of San Leandro witnessed all the sampling and removal of tanks.

Sampling was performed in accordance with approved methodology. The samples were obtained in appropriate containers which were sealed, chilled and transported to the laboratory for same day analysis.

Secondage

Submission to the Regional Water Quality Control Board add the San Leandro Fire Separtment should include copies of this report. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed for your convenience:

Water Quality Control Board San Francisco Bay Region 1111 Jackson Street Room 5040 . . Dakland, CA 04607 Attention: Tom Callahan

E	CHIPS Environmental Consultants	1285 Edmundson Ave Morgan Hill, Ca 95037 (408) 241-1828
Client:	01-22-97 JFH13- KAYO OIL	B:MARINA.PA. 21
Project	No: FAST GAS STATION, 1088 MARINA E	
	EM. LEWICRO, CA	
Comment	STEDIL SAUPLES FOR MASTE OIL, GASOL	INE
	AND BEAL SHIPLED 1. 21/87	
	S: FOR WASTE OIL, GASOLINE, BTX	
Earle #		≈
001018	Soil sample, Beneath excavated 7500 Gallon unleaded gasoline tank at a depth of 14 feet below grade. South end.	Gasaline is soil
001176	Soil sample, Seneath excavated 7500 Gallon unleaded gasoline tank at a depth of 16 feet below grade. South end.	Gasoline in soil
061212	Soil sample, Beneath excavated 7500 Gallon unleaded gasoline tank at a depth of 14 feet below grade. North end.	270 4 - 25 FPM (trut) Gasoline in soil 76 + - 7 PPM Berzene 230 + - 25 FFN Toluene 150 +/- 15 PFM Kylenes
001310	Soil sample, Beneath excavated 10000 gallon gasoline tank at depth of 14 feet below grade. South end.	620 +/- 60 PPM (wt/wt) Gasoline 14 Boil 28 +/- 3 PM1 Benzene 155 +/- 15 PPM Toluene 140 +/- 14 PPM Avlenes
001019	Soil sample, Beneath excavated 10000 gallon gasoline tank at	$560 \pm 7 - 50$ PPM (wt/wt) Gasoline in soil

••

	•	• •		
_		CHIPS		
I		Enviror	imental lants	1285 Edmundson Ave Morgan Hill, Ca 95037
		.onsul	lants	(408) 241-1828
			01-23-87 JFM13-	E:MAPINAZ.KAY 212
	Client:_	KAND DIL		den sammangen g.
a	Project	No <u>Fast</u> Be	S STATION, 1088 MARINA 8	
		5-41 LEA	<u>110P0, CA</u>	
ł	Corments	YEDIL BAUS	LES FOR GASOLINE AND ST.	and the feature and a state
		SAMPLED D	N 1/21/87	Arroys Stratungen L big
-	 ANALY313	: FOR GASO	LINE AND BTX	

ļ,	⇔ elqme∂		• .	Pesult
	001362	Soil samp of excava feet belo	le, Northeast corner tion hole, Depth 19.5 W grade.	Gasoline in soil 5.7 +/- 0.0 PPM Benzene
i i				1.9 +/- 0.2 PPH Toluene 4.9 +/- 0.5 PPM Xulenes
ļ	000995	Soil samp of excava feet belo	tion hole, Depth 20	26 +/- 3 PPM (wt/ut) Gasoline in soil 1.1 +/- 0.1 PPM Benzene 0.4 +/- 0.04 PPM Toluene 1.5 +/- 0.2 PPM Xylenes
	001004	Soil semp of excava fe@t beloy	tion hole, Depth 19.5 V grade.	230 +X- 35 PPM (wt/wt) Gasoline in soil 15 FX- 2 PPM Benzene 5.5 +X- 0.6 PFM Toluene 15 +X- 2 FFM Sylenes.
ļ	001354	Soil samp. of excava feet belo	, grade.	67 +/- 7 PPM (wt/wt) Gasoline in spil 2.2 +/- 0.4 PPM Bartene 1.0 +/- 0.1 PPM Toluene 4.7 +/- 0.5 PPM Xylenes
	<u>Pro</u> s	· · · 个日 天 (1	(()) 1004), [Ollowed by G	0 and 8015 ng Solid Hastes, SW-846, Was Chromatographic analysis on detector. Standards run
ļ	-m		•	

كتبر

•



1285 Edmundson Ave Morgan Hill, Ca 95037

920 + - 90 PPM: Future

TO +. - 5 FPH: Sensere

250 +/- 25 PFM Toluene 200 +/- 20 PPM Nolenes

문화하다 승규는 동안에 승규가 있는 것이 있다.

500 4 - 70 FEN Excepte

1200 + 1- 110 - 110 - 110 - 100

335 41- 35 PRH (WE WE)

5 4/- 0.5 PFH1 Sensene 56 4/- 6 FFM | Toluene 130 4/- 13 FFM /vienes

460 +/- 45 PPM (wt ut)

8 +/- 1 PPM | Benzene 78 +/- 3 PPM | Toluene 110 +/- 13 PPM Xylenes

210 +X+ 20 PPN () at at) /

(403) 241 1828

Gasoline in soil

64301174 17 E ..

Gasoline in edit.

Gasoline in ±4.1

Waste oil in doil

001011 Soil sample, Beneath excavated 10000 gallon gasoline tank at depth of 14 feet below grade. South end.

100999 - Ittl sample, Seneath e cavated 10000 gallon gasoline tank at depth of 14 feet below grade. North end.

001229 Soil sample, Composite from excavated piles.

C01307 Soil sample, Composite from excavated piles.

CO1012 Soil sample, Beneath excepted Waste oil tank, 1-2 feet below tank pottom, South end

·····

_ تحسب

001019 Soil sample, Beneath excavated 195 +/- 20 FFM (within waste oil tank, 1-2 feet below (laste oil in soil tank bottom, North end

> Protocol: For soils: EPA Methods 5020 and 3550 and 3015 (Test Methods for Evaluating Solid Wastes, SW-845, April 1984), followed by Gas Chromatographic analysi employing a flame ionization detector. Standards run as spikes and recoveries.

Samples kept for 14 days unless other arrangements made.

1 371	17() 011.		G Sa	
	TO A STATE OF THE REAL STATE OF THE STATE OF	1221 East	Main Street Chattanooga, TN 3	17408-1686 15) 755-9330
				()//35-933()
	4 9 1			
June 2, 1983 "				
Mr. Peter Johnson Regonal Water Dual San Prancisco Bay 1111 Jackson ST, S Oakland, CA 94007	Region M 6040			
RE; Fast Gas Stat 1088 Marina B San Leandro,	LVD			
Dear Mr. Johnson:	 			
Enclosed please f for the above refe	ind the latest mon renced location.	ltoring an	d sampling result	s
Kayo will be monit accordance with th interval is schedu	oring this site or e Bay Area RWQCB gui led for December.	n a bi-a delines.	nnual schedule i The next sampline	9 D
	estions, please cal]	. our Lodi	office.	
Sincerely, Joyce Miley	Lođi	Office:	900 S Cherokee LI Lodi, CA 95240	1
Joyce M. Miley Coordinator - Envir	conmental Affairs	Phone:	209/368-2731	
JMM/dg				
Enclosure				
	1			
- · · - · ·	,			

.

Q

m rate

MAY 3 1 2000

FILE COPY COP GROUNDWATER -TECHNOLOGY, INC.

4080 Pille Lane, Suite D, Concord, CA 94520 (415) 671-2387

May 26, 1988

Fax (415) 685-9148 Job No. 203 720 8224.01 Mr. Joyce Miley Kayo Oil Company 900 South Cherckee Lane Lodi, CA 95240

Dear Ms. Miley:

Enclosed please find the results for the quarterly monitoring and sampling at the Fast Gas Station located at 1088 Marina Boulevard in San Leandro, California. Included are a groundwater gradient map, a dissolven plume map, the laboratory analyses report, and groundwater monitoring data.

The site was monitored and sampled on May 2, 1988. The samples were analyzed by GT Environmental Laboratories, Concord, California. Samples were laboratory analyzed for benzene, toluene, ethylbenzene, kylenes (BTEX) and total petroleum hydrocarbons (TPH) by U.S. Environmental Protection Agency (EPA) Modified Methods 5030/8020/8015.

Since Groundwater Technology, Inc.'s (GTI) last sampling interval on February 2, 1988, there has been some flucuations in the TPH concentrations found in the five monitoring wells (See Table 1 -Laboratory Analyses). All of the monitoring wells have detectable concentrations of contamination of the same order of magnitude as the previous sampling round. There has been no appreciable change in the shape of the plume. There is no indication of migration of the contaminant plume at this time. Free product was not found in any of the monitoring wells on site. Also a sample was collected from each well and field analyzed for dissolved oxygen concentrations. The results are presented in Table 2.

FILE COPY COPY GROUNDWATER TECHNOLOGY, INC.

4080 Pike Lane, Suite D, Concord, CA 94520 (415) 671 2387

May 26, 1988

Fax. (415) 685-9148

Job No. 203 720 8224.01

MAY 3 1 BEE

No. Joyce Miley Rayo Oil Company 900 South Cherokee Lane Lodí, CA 95240

Dear Ms. Miley:

Enclosed please find the results for the quarterly monitoring and sampling at the Fast Gas Station located at 1008 Marina Boulevard in San Leandro, California. Included are a groundwater gradient map, a dissolven plume map, the laboratory analyses report, and groundwater monitoring data.

The site was monitored and sampled on May 2, 1988. The samples were analyzed by GT Environmental Laboratories, Concord, California. Samples were laboratory analyzed for benzene, toluene, ethylbenzene, wylenes (BTEX) and total petroleum hydrocarbons (TPH) by U.S. Environmental Protection Agency (EPA) Modified Methods 5030/8020/8015.

Since Groundwater Technology, Inc.'s (GTI) last sampling interval on February 2, 1988, there has been some flucuations in the TPH concentrations found in the five monitoring wells (See Table 1 -Laboratory Analyses). All of the monitoring wells have detectable concentrations of contamination of the same order of magnitude as the previous sampling round. There has been no appreciable change in the shape of the plume. There is no indication of migration of the contaminant plume at this time. Free product was not found in any of the monitoring wells on site. Also a sample was collected from each well and field analyzed for dissolved oxygen concentrations. The results are presented in Table 2. May 26, 1988 Fage 2

i

The groundwater level has decreased an average of 0.90 feet since the last monitoring of the site in February. This decrease is due to the seasonal fluctuation of precipitation. The groundwater-gradient direction remains to the south.

TABLE 1

LABORATORY ANALYSES TOTAL DISSOLVED HYDROCARBON CONCENTRATIONS (ppm)

DATE	MW-1	MW-2	MW-3	MW-4	MW-5
4/16/87	17.28	17.92	9.97	19.31	17.73
6/23/87	26.03	49.35	16.82	31.43	19.56
8/06/87	6.08	14.38	3.11	10.46	6.45
11/04/87	15.00	19.00	2.60	55.00	4.60
2/02/87	14.00	54.00	44.00	47.00	24.00
5/02/87	. 33.00	53.00	14.00	58.00	17.00

TABLE 2 DISSOLVED OXÝGEN

(ppm)

DATE	1	MW-2	MW-3	MW-4	MW-5
5/02/88	3.5	3.0	· 1.0	1.5	1.0

GROUNDWATER TECHNOLOGY, INC
May 26, 1988 Tage 3

GII would like to thank Kayo Oil Company for the continued opportunity to be of service on this project. Should you have any questions regarding these results, please contact us at your earliest convenience.

Sincerely, GROUNDWATER TECHNOLOGY, INC.

Kelly a Kind Kelly A. Kline

Project Ceologist

KAK:1bm

Enclosures

L8224.01E

[]

GROUSDWATER TECHNOLOGA, INC





•							
0	Environm	<u> </u>					
0	Laborato	ries@ ^{05/20}	/88 mh	Page 1 of	ĉ		
ang sing	Groundwater T	echnology, Inc.	PROJECT MGR:	Paul Hort	on		
1	istem Region			Groundwat	er Technol	logy, Iric.	
	35) 685-7852			Concord, 1	Lane CA 94520		
	0) 544-3422 from i	nside California	PROJECT #:	203-720-8	224.01-4		
	(1) 423-7143 Iroin c	utside California	•	San Leand	ro, CA		
		v	SAMPLED: RECEIVED:	05/02/88 05/02/88		D. Kaufma	m
			ANALYZED:	05/13/88	BY: BY:	K. Biava C. Manuel	
	TEST RES	ULTS		Water ug/L (ppb)			! !
Contra la		I MDL ILAB #					
And the second second		1 11.D.4	I 22029 I I MU-1 I	22030 MV-2	22031 MW-3	1 22032 1 MN-4	1 22033 I I MW-5 I
		0.5		6800		** - ** ** - ** ** ** ** -	
	<i>غر</i>	о г	0000	DOUG	1600	9200	4400
	· · · · · · · · · · · · · · · · · · ·	0.5	4900	7100	840	6100	1200
		0.5	700	1300	450	1300	490
		G. 5	2700	5400	1700		
		0.5	17000	1		କେଟଡ	1500
	we have the second		12000	21000	4000	23000	7600
€ ₁₆₁ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Dons	1.0	21000	32000	9400	35900	9400
ALL STORE		•					
	· · · · · · · · · · · · · · · · · · ·	1.0	33000	53000	14000	58000	17000
							1

to two significant figures.

ivironme	mici		
A d - sion of Groundwater Tec			
	1	Page 2 of 2	
Western Region 4080-C Pike Lane, Col (415) 685-7852 (800) 544-3422 from ins (800) 423-7143 from ou	sido Celifornia	0 PRDJECT MGR: Paul Horton PRDJECT #: 203-720-8224.01-4 LOCATION: San Leandro, CA	
(800) 42347 143 11011 0			
TEST RES	ULTE	MATRIX: Water UNITS: 'ug/L (ppb)	
COMPOUNDS	I NDL ILAB		
Eenzene	0.5	(0.5	
Toluene	ດ . 5	(Ø. 5	
Ethylbenzene	0.5	(0. 3	
Xylenes	0.5	(0.5	
Total BTEX	0.5	(0.5	
Misc. Hydrocarbon (C4-C12)	s 1.2°.	<1.0	
Total Petroleum Hydrocarbons as Gasoline	1.0	(1.0	

MDL = Method Detection Limit; compound below this level would not be detected. Results rounded to two significant figures.

METHOD:

Í

Modified EPA Method 5030/8020/8015.

Em7 SAFY KHALIFA, Ph. D., Director

أتتسو

PETERSON TRACTOR COMPANY

ī,

٠.

.•

Geo/Resource Consultants, Inc.

.

-- _---



	INTRAOFFICE SPILL	DECHANGE	1	
	fifice Notification	RESPONSE/INT		
	Date: 6/13	To Field Inspecion	e DEmergency	
	Wand has A to	MHK	Hand deliver/	a
	Reid by:	FVJ	Fhone contact	
	Addr:	RSS 1 C (1	Inbecket	
	Phone: 457 7 7	INFORMATICA	ROUTING (copy)	
	÷ > -	Seg To Int	* Emergency or	
		SL	if Media in- volved, hand	
	incident Type:		cerry to ED.	
	□ Spill □0il □Chem □0ther	ALU .		
	Complaint DOther	, EO*	File:	
***	~~~ #1.(POD584.000/00	6 m 1	- 1	-
	FT INFORMATION (Completed	•		
dischar	go Dete:Ti	20:5	lovious Occurrance: Y	N
••	Material:			· · ·
Suurco:	Production Production	Address	Carl Charles	
	-			······································
Cattory	The state of	Phone:		
	The is selected	Phone:		
	······································	Phone:		
- Stole V	eters Impacted:	Phone:		
– State W Extant (eters Impacted:	Phone:		
– Slate V	eters Impacted:	Phone:		
- State W Extent (Impact	eters Impacted:	Phone:		
- Sinte W Extent o Impact <u>RESPO</u>	eters Impactod: of <u>IISE (Completed by investigato</u>	Phone:		
- Stote W Extent o Impact <u>RESPO</u>	of	Phone:		
- State V Extant o Impact <u>RESPO</u> Staff h	eters Impacted: of 	Phone:	Phone =	
- State V Extant o Impact <u>RESPO</u> Staff h	eters Impactod: of <u>IISE (Completed by investigato</u>	Phone:	Phone =	
- Sinte W Extent of Impact <u>RESPO</u> Staff H	eters Impacted: of <u>IISE (Completed by investigato</u> avestigation: Phonó Contact	Phone:	Phone * Phone * icelth Cher rgancies by complaint	
- Sinte W Extent of Impact <u>RESPO</u> Staff H	eters Impacted: of <u>IISE (Completed by investigato</u> avestigation: Phonó Contact Mgency Responding: [] SDF&	Phone:	Phone = Phone = loc.1:1: □ C'ber:	
State V Extent o Impact <u>RESPO</u> Staff L Othor A <u>AGEII</u>	aters Impacted: of <u>IISE (Completed by investigato</u> avestigation: Phonó Contact Mgency Responding: IISDF& <u>CV IMPIFIED (Completed by in</u> <u>Date/Time</u>	Phone:	Phone = Phone = leadth II Coher recorded by complaint headhead for	
State V Extent o Impact <u>RESPO</u> Staff h Othor A <u>AGFIN</u>	aters Impacted: of <u>IISE (Completed by investigato</u> avestigation: Phonó Contact Roncy Responding: IISDF& <u>NGONCY Responding</u> : IISDF& <u>Date/Time</u>	Phone:	Phone = Phone = Icelth DCher recursies by craptaint Mean Normired for Malife Phone =	
- Stote V Extent of Impact RICS PO Staff In Other I AGEIIO	eters Impacted:	Phone:	Phone = Phone = leadth II Coher recorded by complaint headth I Dorniced for maile	
State V Extent of Impact RESPO Staff In Othor I AGEIIO	eters Impacted:	Phone:	Phone 2: Phone 2: Icalita Dether: regeneries by complaint Inches. Dethicd for Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imal	
State V Extent of Impact RESPO Staff In Othor I AGFIN	eters Impacted:	Phone:	Phone 2: Phone 2: Icalita Dether: regeneries by complaint Inches. Dethicd for Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imalie Imal	
- Stote W Extont of Impact RESPO Staff In Othor A AGFIN	eters Impacted: of <u>IISE</u> (Completed by investigato avestigation: Phono Contact Agency Responding: []SDF& NGency Responding: []SDF& Contact Date/Time Date/Time Date/Time Contact Date/Time Date/Time Date/Time Date/Time Date/Time Date/Time	Phone:	Phone : Phone : Icalth D'Cher rgancies by craptaint Particed for Partice for br>Partice for for Partice	
State V Extent of Impact RESPO Staff In Othor I AGFIN	eters Impacted: of <u>IISE</u> (Completed by investigato avestigation: Phono Contact Agency Responding: []SDF& NGency Responding: []SDF& Contact Date/Time Date/Time Date/Time Contact Date/Time Date/Time Date/Time Date/Time Date/Time Date/Time	Phone:	Phone : Phone : Icalth D'Cher rgancies by craptaint Particed for Partice for br>Partice for for Partice	

-

D, ·

ľ

Ū

Q

,

UNOCAL SERVICE STATION NO. 4845

IJ

U

ì

1

:

Geo/Resource Consultants, Inc. -- -- -

_



43255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-19.16

June 5, 1987 AGS 87043-2

Mr. Don Terry UNOCAL Corporation 2175 N. California Blvd. Suite 650 Walnut Creek, CA 94596

Subject: Transmittal of Report No. 87043-2, Subsurface Environmental Investigation, Soil Boring and Monitoring Well Installation at UNOCAL Service Station #4845, Marina Boulevard and Alvarado Street, San Leandro, California.

Dear Mr. Terry:

This report presents the results of our limited environmental investigation at the above-referenced site. The investigation included the drilling of four boreholes and the construction of four 2-inch diameter monitoring wells.

Laboratory analyses of soil and water from boring B-1 (MW-1) show relatively high concentrations of hydrotarbons. No detectable levels of hydrocarbons were found in the soil from horings B-2, D-3, and B-4. The Benzene, Toluene, and Kylene levels in water collected from MW-1 are above State of California, Department of Health Services recommended maximum concentrations for drinking water. The water samples collected from monitoring wells MW-2, WW-3, and MW-4 have very low, but detectable levels of hotal welatile hydrocarbons (TVH), however, only the benzene level in MW-4 is above State Department of Health Services recommended maximum concentrations for drinking water.

The low levels of hydrocarbons found in the wells along the edge of the station property suggest that the contamination is relatively limited in extent. The low levels also suggest that the transport rate is slow based on the information that suggests that the product release occurred at least ten years ago.



Applied GeoSystems

43255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

RECORD OF ANALYSIS

Date 12-7-87

「「「「「「「「」」」」」

Applied GeoSystems 43255 Mission Blvd. Fremont, CA. 94530

Attention: William R. Short

Date Received: 11-24-87 Date Analyzed: 12-2-87

Laboratory# 8712W009

Procedure:

The water samples referenced on the attached Chain-of-Custody were analyzed for the presence and concentration of Benzene, Ethyl-Benzene, Toluene, and Xylenes (BETX) by EPA method 602. The samples were concentrated on a Tekmar LSC-2 and ALS automatic sampler prior to injection into a 5890 Hewlett Packard gas chromatograph fitted with a Photo-Ionization detector (PID) and a Flame Ionization detector (FID). The limit of detection for these samples is 0.0005 milligrams/liter (parts per million =

The results are presented in the table below:

SAMPLE	SITE	BENZENE	ETHYL <u>BENZENE</u>	TOLUENE	TOTAL <u>XYLENES</u>
W-22-MW1 W-22-MW2 W-22-MW3 W-22-MW4	87043-3 87043-3 87043-3 87043-3 87043-3	0.0059 ND ND 0.0018	ND ND ND ND	0.0193 0.0017 0.0081 0.0010	0.1059 ND ND ND

Results in milligrams/liter (parts per million = ppm). ND=Non Detectable - Less than 0.0005 milligrams/liter (ppm).

Tia Tran, Chemist

Applied GeoSystems is a State of California, Department of Health Services Certified Hazardous Waste Testing Laboratory (No. 153).

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS ANAMETRIX, INC. (408) 629-1132 ple I.D. : 87043-3 W-22-MW1 vix. : WATER Anametrix I.D. : 871149-01 : sampled : 11-23-87 Analyst : anl. TVH Supervisor Fis : 11-28-87 ext. TEH : NA Date released : 12-01-87 anl. TEH : NA Date ext. TOG : NA Date an1. TOG : NA Det. Amt. CAS # Limit Found (ug/L) (ug/L) Q Compound Name 71-43~2 Benzene 108-88-3 ·~~~______ Toluene 1 1100-41-4 NR I Ethylbenzene 1 1 INR | Total Xylenes 1 1 TVH as Gasoline NR I | 1 | 50 INR | TEH as Diesel 1 630 | + | Total Oil & Grease 50 NR J 10 NR | reporting purposes, the following qualifiers (Q) are used: + : A value greater than or equal to the method detection limit. U : The compound was analyzed for but was not detected. NR: Not requested. - Total Volatile Hydrocarbons is determined by modified EPA 8015 with Total Extractable Hydrocarbons is determined by modified EPA 8015 Total Oil & Grease is determined by Standard Method 503D. - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by All testing procedures follow CRWQCB Region 2 guidelings. Form 3-1.

ALL LAND B

h

こことではなど、ないたちになるとなる。これになったので、そので、

Ŀ,

ř. F.

.

۲. H ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS ANAMETRIX, INC. (408) 629-1132

aple I.D.: $87043-3$ $W-22-MW2$:rix: $WATER$.e sampled: $11-23-87$:e anl. TVH: $11-28-87$:e ext. TEH: NA:e anl. TEH: NA	Anametrix I.D. : $8711149-02$ Analyst : 575 Supervisor : 575 Date released : $12-01-87$ Date ext. TOG : NA Date anl. TOG : NA
-----------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------

CAS #	Compound Name	Det. Limit (ug/L)	Ant. Found (ug/L) 0
71-43-2 108-88-3 100-41-4	Benzene Toluene Ethylbenzene Total Xylenes TVH as Gasoline TEH as Diesel TeH al Oil & Grease	1 1 1 50 50 10	NR NR NR NR NR U NR

reporting purposes, the following qualifiers (Q) are used:

+ : A value greater than or equal to the method detection limit. U : The compound was analyzed for but was not detected.

NR: Not requested.

- I Total Volatile Hydrocarbons is determined by modified EPA 8015 with either headspace or purge and trap.
- Total Extractable Hydrocarbons is determined by modified EPA 8015 3 - Total Oil & Grease is determined by Standard Method 503E.

2X- Benzene, Tolugne, Ethylbenzene, and Total Xylenes are determined by

All testing procedures follow CRWQCB Region 2 guidelines.

Form 3-2.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS ANAMETRIX, INC. (408) 629-1132 : 87043-3 W-22-MW3 mple I.D. Anametrix I.D. : 8711149-03 : WATER rix: Analyst : 355 Supervisor : 565 te sampled : 11-23-87 51.5 : 11-28-87 te anl. TVH Date releaced : 12-01-87 ce ext. TEH : NA Date ext. TOG : NA te anl. TEH : NA Date an1. TOG : NA Det. Ant. Limit Found CAS # Compound Name (ug/L) (ug/L) Q 171-43-2 Benzene 1 INR Toluene 108~88-3 1 NR 1 100-41-4 |Ethylbenzene | NR 1 1 Total Xylenes 1 INR TVH as Gasoline | 50 J U TEH as Diesel 50 | NR Total Oil & Grease | 10 NR + : A value greater than or equal to the method detection limit. U : The compound was analyzed for but was not detected. NR: Not requested. H - Total Volatile Hydrocarbons is determined by modified EPA 8015 with either headspace or purge and trap. H - Total Extractable Hydrocarbons is determined by modified EPA 8015 with direct injection. 3 - Total Oil & Grease is determined by Standard Method 303E. EX- Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020. All testing procedures follow CRWQCB Region 2 guidelines. Form 3-3.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS ANAMETRIX, INC. (408) 629-1132

The second s

ample I.D. strix ste sampled ste anl. TVH ste ext. TEH ste anl. TEH	: 870 : WAT : 11- : 11- : NA : NA	23-87	Analy Super Date Date	yst Svisor	ed 0G	::	8711149-04 555 12-01-87 NA NA
			 De	 et,	 Amt.		

 CAS #	Compound Name	Limit (ug/L)	Found (ug/L) Q
108-88-3 To 100-41-4 Et To TV TE	nzers luene hylbenzene tal Xylenes H as Gasoline H as Diesel tal Oil & Grease	1 1 1 50 50 10	NR NR NR NR U NR NR

or reporting purposes, the following qualifiers (Q) are used:

+ : A value greater than or equal to the method detection limit. U : The compound was analyzed for but was not detected.

NR: Not requested.

C

- /H Total Volatile Hydrocarbons is determined by modified EPA 8015 with either headspace or purge and trap.
- H Total Extractable Hydrocarbons is determined by modified EPA 8015 with direct injection.
-)G Total Oil & Grease is determined by Standard Method 503E.

'EX- Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow CRWQCB Region 2 guidelines.

Form 3-4.

فتسه

ANALYSIS DATA SHEET - PETROLEUM HYDPOCARBON COMPOUNDS ANAMETRIX, INC. (408) 529-1132

	ANAMETRIX, INC	· (408) 329-1132
te anl. TER te anl. TER	H : NA	IKE Anametrix I.D. : 8711149-02 Analyst :

CAS #	Compound Name	Det. Limit (ug/L)	Amt. Found (ug/L)	Q
71-43-2	Benzene			
108-88-3	Toluene	1	1	INR
100-41-4	Ethylbenzene		1	NR
	Total Xylenes		1	NR
		1 1	1	NR
	TVH as Gasoline	50	62%	+
	TEH as Diesel	50	j	NR
	Total Oil & Grease	10	1	INR

r reporting purposes, the following qualifiers (Q) are used: + : A value greater than or equal to the method detection limit.

U : The compound was analyzed for but was not detecred. NR: Not requested.

- H Total Volatile Hydrocarbons is determined by modified EPA 8015 with either headspace or purge and trap.
- H Total Extractable Hydrocarbons is determined by modified EPA 8015 with direct injection.
- G Total Oil & Grease is determined by Standard Method 503E.
- EX- Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow CRWQCB Region 2 guidelines.

Form 3-5.

	•					***************************************		1
	ANAI	LYSIS DA	TA SHEET - ANAMETRIX,	PETROLEUM HY INC. (408) 6	DROCAREON	COMPOUI	NDS	
te s ate a ate e	I.D. ampled nl. TVK xt. TEH nl. TEH	: 87043 : WATER : 11-23 : 11-28 : NA	-3 W-22-MW2 -87	SPIKE DUP.		or eased . TOG	545 545 12-	1149-02 01-87
	 CAS #		mpound Name	· · · · · · · · · · · · · · · · · · ·	Det. Limit (ug/L)	Amt. Found (ug/L)	 Q	
	71-43-2 108-88-3 100-41-4	Ethyl Total TVH as TEH as	00	Se	1 1 1 50 50 10	 92% 	NR NR NR NR H NR H IR	
VH – T EH – T OG – T TEX – B m	NR: Not req Otal Volat Wither head Otal Extra Vith direct Otal Oil & Enzene, To Odified EP	uested. ile Hydr space or ctable H injecti Grease luene, E A 8020.	ocarbons is purge and ydrocarbons on. is determin thylbenzene	is determin ed by Standa , and Total	by modify and by mod and Method Xylenes a	eted. Led EPA & Lified EE 503E. Fe deter	3015 PA 80	with 15
	ll testing	procedu	res follow Form 3-0	CRWQCB Regio	n 2 guide	lines.		
Î								
]					•			

COLUMN TANK

	<u> </u>	**			
Applied	GeoSystems	43255	Mission Boulevard, Fr	emont, CA 94339	(415) (51-(9)
	• FREMONT	• COSTA MESA	• SACRAMENTO	• 1005105	

January 11, 1988 0111dter 87043-3

Mr. Don Terry UNOCAL Corporation 2175 North California Boulevard Suite 650 Walnut Creek, California 94596

Subject: Letter report No. 87043-3, quarterly ground-water monitoring at UNOCAL Service Station No. 4845, Marina Boulevard and Alvarado Street, San Leandro, California.

Mr. Terry:

This letter report summarizes the results of quarterly groundwater monitoring performed by Applied GeoSystems at the abovereferenced site. The subject UNOCAL service station is located on the northwest corner of the intersection of Marina Boulevard and Alvarado Street in San Leandro, California, as shown on the Site Vicinity Map, Plate P-1, enclosed with this letter report. The locations of the four monitoring wells and accociated structures at the site are shown on the Generalized Site Plan, Plate P-2, also attached.

It is our understanding that the underground storage tanks and associated piping were replaced in April 1987. Applied GeoSystems' letter report No. 87043-1 (dated May 14, 1987) report No. 87043-2 (dated June 5, 1987) and letter report No. 87043-3 (dated October 13, 1987) describe our previous investigations at the site.

A goologist from Applied GeoSystems arrived at the abovereferenced site on November 23, 1987, to collect ground-water samples from monitoring wells MW-1, MW-2, MW-3, and MW-4. Ground-water levels in the wells were measured using a Solinst water-level sounder. Following the water level measurement, an initial water sample was collected from each of the wells to check for floating product, sheen, emulsion, and product odor. The samples were collected by gently lowering a clean Teflon bailer past the air/water interface and obtaining a sample from the surface of the water in each well. No subjective evidence of

تىر.

January 11, 1988 Unocal Service Station No. 4845, San Leandro, California

toluene, and total xylene isomers in these three wells were either below laboratory detection limits or below DHS recommended maximum concentrations for drinking water. The levels of benzene, ethylbenzene, toluene, and total xylene levels in MW-1 had decreased since the May 1987 sampling. The levels of benzene, toluene, and xylene in MW-1, however, were still above DHS recommended maximum concentrations for drinking Water. The concentration of ethylbenzene in MW-1 had decreased to below DHS action levels.

15-

民

10

| A * | K (

: N 2

新設にな

The most recent analyses show a continued drop in contamination levels in MW-1. Only levels of benzene in monitoring wells MW-1 and MW-4 are slightly above DHS recommended maximum concentrations for grinking water. The levels of hydrocarbon contamination in MW-1 have decreased substantially since May 1987. The levels of contamination in the three wells near the perimeter of the site (MW-2, MW-3, and MW-4) continue to show levels of contamination at or near detection limits.

An evaluation of the ground-water flow direction across the site was conducted using the water-level measurements made on November 23, 1987. A Wild NA-24 Auto Level was used to measure the differences in elevation between the top of the casing of each of the monitoring wells. Measurements were recorded to the nearest 0.001-foot, although accuracy of the instrument is limited to 0.005-foot over the maximum distance of measurement (approximately 100 feet). The static water level in each well was measured to the nearest 0.01-foot using a Solinst water level sounder. The well head and ground-water elevations were combined to calculate the differences in water-level elevations between the wells.

Table 3 presents the tabulated results of the ground-water elevation survey using measurements of ground-water elevations taken on November 23, 1987. Plate P-3 shows the ground-water potentiometric surface at the site calculated from the data presented in Table 3. The water elevation data indicate that the shallow ground water at the site was flowing approximately south 40 degrees west and had a gradient of approximately 0.001 (0.1-foot per 100 feet) at the time of measurement.

As stated in our previous report (No. 87043-2, dated June 5, 1987) we understand, based on conversations with UNOCAL personnel, that a leak was repaired in a former tank in 1978. This former leak may have been the source of the contamination observed in the monitoring wells. The underground storage tanks and associated piping were replaced with double containment tanks

3

January 11, 1988 Unocal Service Station No. 4845, San Leandro, California

and lines in May 1987. Thus, further introduction of hydrocarbon contaminants to the ground water is unlikely. The substantial reduction in levels of hydrocarbon contamination in MW-1 and the very low levels of hydrocarbon contamination observed in the monitoring wells near the perimeter of the property suggest that the contamination at the site is relatively hydrocarbons in MW-1 may be the result of the natural processes of dispersion, dilution, and biological degradation of the

Based on the rate of decrease of contamination, continued reduction in the levels of contamination can probably be expected in the near future. We recommend that the ground water be sampled once more in February 1988, because the ground-water quality at the site has been improving and because the latest sampler show very low levels of the hydrocarbon constituents analyzed. If the contamination levels remain low, or unchanged during the February 1988 sampling event, we will recommend discontinuing the monitoring activities at the site.

A copy of this report should be forwarded to Mr. Joe Ferreira of the San Leandro Fire Department at 835 East 14th Street, San Leandro, California 94577, and to Mr. Greg Zentner of the California Regional Water Quality Control Board, San Francisco Bay Region at 1111 Jackson Street, Rocm 6040, Ockland, California 94607. Please do not hesitate to call if you have any questions concerning the content of this letter report.

Sincercly, Applied GeoSystems 1. 11. WMMmm H William R. Short

FE E

e K

Ĩ.

۱.

il n

Project Geologist

Gillian S. Holmes G.E. 2023

Enclosures: Plate P-1 - Site Vicinity Map Plate P-2 - Generalized Site Plan Table 1 - Cumulative Results of Subjective Analyses Table 2 - Cumulative Results of Laboratory Analyses Table 3 - Ground-Water Elevation Differences Plate P-3 - Ground-Water Potentiomeuric Surface Map Chain of Custody Records

4



January 11, 1988 Unocal Service Station No. 4845, San Leandro, California AGS 87043-3 TABLE 1 CUMULATIVE RESULTS OF SUBJECTIVE ANALYSES UNOCAL Service Station No. 4845 1, Marina Boulevard and Alvarado Street į1 1 San Leandro, California Well Depth Floating Date Number to Water Product Odor Sheen Emulsion 05/14/87 MW-1 19.40 NONE NONE NONE NONE 05/22/87 MW-1 19.58 NONE SLIGHT NONE NONE 08/25/87 MW-1 20.75 NONE NONE NONE NONE 11/23/87 MW-1 21.07 NONE NONE · NONE NONE 05/22/87 MW-2 18.62 NONE NONE NONE NONE 08/25/87 MW-2 . 19.84 NONE NONE NONE NONE 11/23/87 MW-2 20.13 NONE NONE NONE NONE 05/22/87 MW-3 19:26 NONE NONE NONE NONE 08/25/87 MW-3 20.44 NONE NONE NONE NONE 11/23/87 MW-3 20.71 NONE NONE NONE NONE 05/22/87 MW-418.02 NONE NONE NONE NONE 08/25/87 MW-4 19.21 NONE NONE NONE NONE 11/23/87 M₩-4 19.49 NONE NONE NONE NONE Depth to water is measured in feet below top of casing.

22......

A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESCRIPTION OF A DESC

Star In

ŀ٩

Ţ

1.

÷ -

Annlind Gangustoma

January 11, 1988 Unocal Service Station No. 4845, San Leandro, California ;

}.;

í 'r

ι.

11

	U,	TIVE RESULT NOCAL Servi na Boulevar	ce Statio	n No. 48 arado St	45	-
Date	Well Number	Depth to Water	Floating Product	Odor	Sheen	Emulsion
05/14/87 05/22/87 08/25/87 11/23/87 05/22/87	MW-1 MW-1 MW-1 MW-1 MW-2	19.40 19.58 20.75 21.07 18.62	NONE NONE NONE NONE	NONE SLIGHT NONE NONE	NONE NONE NONE	NONE NONE NONE NONE
08/25/87 11/23/87	MW-2 MW-2	19.82	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE
05/22/87 08/25/87 11/23/87	MW-3 MW-3 MW-3	19.26 20.44 20.71	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE
05/22/87 08/25/87 11/23/87	MW-4 MW-4 MW-4	18.02 19.21 19.49	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE	NONE NONE NONE
Depth to	water	is measured	l in feet	below t	op of c	asing.

- Applied GeoSystems

1 a Minut

January 11, 1988 Unocal Service Station No. 4845, San Leandro, California AGS 87043-3 TABLE 2 CUMULATIVE RESULTS OF WATER ANALYSES UNOCAL Service Station No. 4345 Marina Boulevard and Alvarado Street San Leandro, California Sample Date Number Sampled Sthyl TVH Total Benzene Benzene Toluene Xylenes W-30-MW1 05/12/87 16.12 W-30-MW1 0.36 08/25/87 0.67 2.43 3.070 2.84 W-22-MW1 0.114 0.085 11/23/87 0.709 0.630 0.666 0.0059 ND 0 0193 0.1059 W-27-14W2 05/22/87 0.0109 W-25-MW2 ND 08/25/87 ND 0.0010 0.0150 W-22-MW2 ND ND 11/23/87 HD 0.0008 ND 0.0029 ND ND 0.0017 W-27-MW3 ND 05/22/87 0.0545 W-25-MW3 ND -08/25/87 ND 0.0012 0.0028 W-22-MW3 ND ND 11/23/87 MD 11D ND ND ND ND 0.0081 W-27-14W4 ND 05/22/87 1.2139 W-25-MW4 0.0262 08/25/87 0.0354 0.0028 0.1779 W-22-MW4 ND ND 11/23/87 0.0006 0.0006 ND ND 0.0018 ND 0.0010 ND DHS 0.0007 0.680 0.100 0.620 Results in milligrams/liter (mg/l) = parts per million (ppm) Total volatile hydrocarbons Nondetectable ND: DHS: Department of Health Services recommended maximum concentrations for drinking water Detection limits: 0.050 ppm (TVH - November 1987) 0.0005 ppm (BETX - November 1987) Sample designation: Monitoring well number Sample depth in feet Water sample

の一般のないで、「ない」というない。

Marina	D-WATER ELE AL Service : Boulevard : San Leandro	BLE 3 VATION DIFFEREN Station No. 424 and Alvarado St o, California November 23, 193	5 reet
Monitoring Well Number	Top of Casing (C)	Static Water Depth (W)	Water Level Below Datum (C + W)
MW-1	0.000	21.07	21.07
MW-2	0.855	20.13	20.99
MM-3	. 0.429	20.71	21.14
MW-4	1.704	19.49	21.19
Measurements in f Depth to static w Datum is an arbit of the highest we	ater measure rarv elevati	OD COrrectordia	top of casing. Ig to the top
			2

]

]

]

Í

ļ

FUELLEAK CASE FORM
Review Date 8 / 1 / 5%
Site Name Streetnumber Street
Priority
Rank
Primary Substance
Secondary Substance
Waste Oil
Case Type U G D
Status
Well Status
Soil Affected
Max. Soil Conc. (ppm)
Max. Residual Soil (ppm)
Scil StatusN
Groundwater Affected (Y) U
Max. Groundwater Impact (600)
Groundwater Status
Depth to Groundwater
Drinking Water Affected Y
Drinking Water Status
Remedial Action
Proof of Action Needed
Date of Last Corr. 3, 30, 88
Date Case Received Lo / 30/87
Case Evaluated put 12 M (
trade reports not give to us. used end and considered
here, it see us done

.

•

••

~

•

ļ

ł

. . 1

_ }...

		makadi di ati ati
		File: LL PHR
Applied	Geosystems 43255 Mission B	oulevard Fremost CA 91549 (0.15) 051-1696
	o Dir viene 12 – energie in al	AMENTO A HOUSION
4	(2.1878BN)	
	un in the	
	QUALITY COMPLETE	July 15, 1988 AGS 87043-3 0715gzen
1111 Jack	Zenther La Regional Water Quality Con Sisco Bay Region, Son Street, Room 6040 California 94607	ntrol Board, 644 ASP
Subject:		Unocal Sorvice Station No.
Mr. Zentr	er:	
COPY OF C	OCAL's request of July 14, 1 he above referenced report (to call if you have any ques	1988 we are forwarding you a (AGS 87043-3). Please do not stions.
		Sincerely,
		Applied GeoSystems William R. Short Project Geologist
		~
anclosure		
٠	•	

4

ا ۲۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰					
					+
		~ .			
Applied	GeoSystem		_		
	• FREMONT	43253	5 Mission Boulevard	Fremon, CA (2349 .415) 651-	
		 COSTA MESA 	• SACRAMINED	100 00. CA (2319 .415' 651-	Solon.
				• (10): -11,5	
				July 7, 1988	
Mr. Tim R	N _			0706tres AGS 37043-3	
UNOCAT, CA	1000 0			1100 87043-3	
2175 Nort		Royal			
Suite 650 Walnut Cr		boulevard			
	eek, Califor	nia 94596			
Supject:	Letter pro				
	Water monit	NO. 8704 Oring at	3-3 regardin	ng quarterly groun	
	Californi	evard and A	UCAL Service	ng quarterly groun Station No. 4845 et, San Leandro,	id-
Mr -	urnia.		- Julauo Stre	et, San Leandro	/
Boulevard a shown on th Dusite moni the General	the northwe and Alvarado toring wells ized Site Pl	st corner o Street in hity Map, P and assoc	of UNOCAL se f the inters San Leandro, late P-1. 1 iated struct P-2.	the quarterly GeoSystems at the ervice station is section of Marina California, as The locations of t cures are shown on	he
nd associat nvestigatio 7043-1 (dat 987), and I enuary 11,	ted piping w ons at the s led May 14, letter Report 1988, and May	that two ure replace ite are des 1987), Repo t No. 87043	inderground ed in April cribed in op rt No. 8704: -3 (dated op	storage tanks 1987. Our previou ur Letter Report M 3-2 (dated June 5,	15 10.
1923, to -1, MM-2, f re measured ter-level r the wells arity. The ler which st the air/	rom Applied collect gro NW-3, and MW d using a So measurement, to check for samples we had been the water inter	d GeoSystems ound-water s '-4. Grour linst water a water sa r floating re collecte proughly cl	s arrived at samples from id-water lev c-level soun imple was co product, she d by gently eaned with	the site on June monitoring wells els in the wells der. Following the lected from each een, and water lowering a Teflor Alconox and water, ample from the twe evidence of of the samples.	

Ĩ ſ

7

July 7, 1988 UNOCAL Service Station No. 4845, San Leandro, California

The cumulative results of the subjective analyses conducted at the site are summarized on Table 1.

After the subjective analyses, each of the four wells were purged of approximately three to four well volumes of water and allowed to recover to the approximate static water level. Samples for laboratory analysis were then collected from below the air/water interface with a Teflon bailer. Prior to each use, the bailer was thoroughly cleaned with Alconox and water. The samples were transferred to laboratory-cleaned, 40-milliliter, glass volatile organic analysis sample vials. Hydrochloric acid was added to the vials to minimize bacterial degradation of the samples. samples were immediately sealed with Teflon-lined caps, labeled, The placed in iced storage, and delivered to Applied GeoSystems' state-certified laboratory in Fremont, California, for analysis. A Chain of Custody Record was initiated by the sampler, and a copy of this record is enclosed with this report.

The water samples were analyzed for total petroleum hydrocarbons (TPH) by modified Environmental Protection Agency (EPA) Method 8015 and the hydrocarbon constituents benzene, ethylbenzene, toluene, and total xylene isomers were analyzed by EPA Method 602. The results of these and previous analyses are presented on Table 2. The results of the latest analyses are also shown on the laboratory Analysis Reports enclosed with this report.

Analyses of samples collected in May 1987 showed that all constituents analyzed from wells MW-2 and MW-3 and the levels of ethylbenzene, toluene, and total xylene isomers in well MW-4 were below either the analytical method detection limits or the maximum concentrations recommended for drinking water by the California Department of Health Services (DHS). The DHS recommended maximum concentrations for benzene, ethylbenzene, toluene, and total xylene isomers are 0.0007, 0.680, 0.100, and 0.620 part per million (ppm), respectively.

i

こことのないないないので、「ない」のないないである。

The August 1987 analyses showed levels of benzene less than the detection limit of 0.0005 ppm in monitoring wells MW-2, MW-3, and MW-4. Ethylbenzene, toluene, and total xylene isomers in these three wells were below either the laboratory detection limits or the DHS recommended maximum concentrations for drinking water. The levels of benzene, ethylbenzene, coluene, and total xylene isomers in well MW-1 had decreased since the May 1987 analyses. Well MW-1 were still above the DHS recommended maximum concentrations for drinking water.

2

July 7, 1988 UNOCAL Service Station No. 4845, San Leandro, California

The November 1987 analyses showed a continued decrease in contamination levels in well MW-1. Only the level of benzend in monitoring wells MW-1 and MW-4 was slightly above the DHS recommended maximum concentrations for drinking water.

The February 1986 analyses showed a slight increase in hydrocarbon levels in monitoring wells MW-1 and MW-4. The levels of benzene, toluene, and total xylene isomers in MW-1 and the level of benzene level in well MW-4 were slightly above the DUL recommended maximum concentrations for drinking water.

'n

ľ

31. - I-L

| |-

ĿĘ

.

13

The ground-water level has risen approximately 1-3/4 feet since November 1987 to levels nearing the May 1987 measurements. The increase in contamination levels in wells MW-1 and MW-4 may have been in response to the rise in the ground-water level at the site. The ground water may have been exposed to codd with higher residual concentrations of hydrocarbon contamination. The the ground-water level rises to the zone of higher soil contamination, more hydrocarbon contamination may come into contact with the ground water and the concentrations of hydrocarbons in the ground water may increase.

The most recent analyses show a decrease in levels of benzone, ethyl-benzene, toluene, and total xylend isomers in well Md-4 at the downgradient margin of the site, as well as a decrease in the level of benzene in well MW-1; however, the level of benzene in well MW-4 and the levels of benzene, toluane, and total xylene isomers in well MW-1 are still slightly above the DMS recommendant maximum concentrations for drinking water.

The results of the ground-water elevation survey using groundwater elevation measurements taken on June 10, 1988 are presenting on Table 3. Plate P-3 shows the ground-water potentiometric surface at the lite calculated from the data presented in Table 3. The water-elevation data indicate that the shallow ground water at the site was flowing toward the southwest and had a gradient of approximately 0.001 (0.1-foot vertical per 100 feet horizontal) at the time of measurement.

As stated in our Report No. 87043-2 we understand, based on conversations with UNOCAL personnel, that a leak was repaired in a former tank in 1978. This former leak may have been the source of the contamination observed in the monitoring wells. The underground storage tanks and associated piping were replaced with Couble-containment tanks and lines in May 1987. The nondetectable to very low levels of hydrocarbon contamination observed in the monitoring wells at the margins or the property

July 7, 1988 UNOCAL Service Station No. 4845, San Legadro, California

suggest that the extent of the contamination at the site is relatively limited. Over the past year, the hydrocarbon ground water at the site; therefore, we recommend that the ground-water monitoring program be changed from quarterly to

Copies of this report should be forwarded to Mr. Joe Ferreira of the San Leandro Fire Department at 835 East 14th Street, San Leandro California 94577, and Mr. Greg Zentner of the California Regional Water Quality Control Board, San Francisco Bay Region at 1111 Jackson Street, Room 6040, Oakland, California 94607. Please do not hesitate to call if you have any questions concerning the contents of this letter report.

> Sincerely, Applied GeoSystems

.

;~

! ·

The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s

•

Martin Strate Strate Strate

HALL SALE AND

William R. Short Project Geologist

Gillian S. Holmes G. E. 2023

Enclosures: Plate P-1 - Site Vicinity Map Plate P-2 - Generalized Site Plan Plate P-3 - Ground-Water Potentiometric Surface Map Table 1 - Cumulative Results of Subjective Analyses Table 2 - Cumulative Results of Water Analyses Table 3 - Ground-Water Elevation Differences Chain of Custody Record Laboratory Analysis Reports

- 4



Ante The Blassen CA 1619 41. act 140. ECT NO. AGS 87043-3

UNOCAL Station No. 4048 Marina Blvd. and Alvarado Street San Loondro Cas

P _

1

1

	E and	4	2 %					I
	Applied G							
			and the second s	43255	Aussion Boule	vard Emmon		
		P FRENI	ONT PC	DSTA MESA	• SACRAME		and the set of a set of the set o	
		· · · · · · · · · · · · · · · · · · ·					OUSTON	
			AN	ALYSH	<u>G REPC</u>	NED 11-		and the second sec
		1				N.9 1		
	Report Prepa	red	for:				0212	lab.frm
			100 B	•	Date	Received		
	43255 Missic Fremont, CA	n Bl	vd.		Proje	atory Nu	mber:0604	0802
	Attention: W	945	39 377 D av		Sampl		8704	3-1
			am R. Sh	ort	Matri	x:	W-21 Wate	-MW2
	Paramete	r	Res	ult	Instant		The second s	r
	 		(mg/kg)	(mg/L)	(mg/kg)	on Limit		Notes
	TVH as Gaso	line				(109/10)	Analyzed	
ļ	TPH as Gaso	ling		ND				NR
ļ	TEH as Dies Benzene	e l				0.02	06-20-88	
il.	Toluene		t	ND		0,0005		NR
1	Ethylbenzen		•	ND		0.0005	06-20-88	
1	Total Xylene	s		ND	İ	0.0005	06-20-88	
-	States of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local di			0.0005		0 000m		ļ
 11	g/kg = milli g/L = milli D = Not d	gram;	s per ki	logram =	parte n			()
N	D = Not d	gram:	s per li	logram = ter = pp	m.	er milli	on (ppm).	
***	conce	ntrat	tione b	mpound (s) may be	present	2 †	
ы	<pre>K = Analy</pre>	sis r	ot requ	ired.) may be detectio	n limit.	46	
23	ALATEY			PROCIER	סתהת			
et	A Method 80	and	latile :	ydrocari	oons (TV	f) and to		
ex	A Method 80: aph (GC) equ	ordi	ng to Fr	lene isc	omers (Br	TEX) and De	nzene, to	luene,
	'A MOTHON on			'n dernaa	1 6000 0	- -	medaulen	1)V
L L	GRA-ioni-	1 • • 7			opin		yes chr	0112+0
va	aph (GC) equ ame-ionizati ter samples	on d	etector	(FID) in	Series	n detect	or (PID)	and a
th	ame-ionizati ter samples e GC.	are	subjecte	d to pur	ge-and-t	Soli e Tan inte	xtracts a	nd
		1.					ounceron ;	Into
151	ETotal pet measured b analysis by	roleu	m hydro	Carbona				
by	measured b analysis by lipped with	y ext	raction	accordin		medium bo	oiling poi	ntei
				1 6 8 Mosh	A 0016 .		2020 TOT!	owed
sub	ipped with a placted to placted to place.	in ri irae-	D. Soil	l extract	ts and wa	iter come	es a GC	
117 T 1 1 1	jected to p	- 50	and-crar	ntrodu introdu	uction ir	to the G	C.	
mea	Sured he	acca	Die hydr	Ocarbone				
EPA	Method 3510	ract	ion acco	rding to) EPA Mot	oiling p	oints) are	Э
Wit:	Sured by ext Method 3510 h direct sam	nior	Water f	ollowed	by a mod	itica 3550	for soil:	s or
	Method 3510 h direct sam		/	n into a	GC equi	Pred with	A Method (3015
	/ 12	m	ha		-		. an 110-	
Tia	Tran, Labor	 			6-2	2		
∆ры		arory	Superv	isor	Date	3-88 Reporte		
<u></u>	IED GEOSYSTER	S is ci	ERTIFIED BY 1			P01'66	: u _	
		1		이 다 나는 나는	1 AM C 1966357 NR A			

E

ł

ł

i

	.					
Applied GeoSyst	eme					
• FREMOR		. (25:		•		
	· · · · · · · · · · · · · · · · · · ·	IA MENA	• • F • 1,14 • 1		-	
	A AL		· · · · -	•		
	Total A	ALYSIS	REPO	RT		
Report Prepared	P					
Applied GeoSyster 43255 Mission Bly	. .		Date 1	Received	. Pal:	
			Labora	atory Hu	$\frac{1}{mber:000}$	63 63
Attention: Willia	AM R. Ch.		Proje Sample	96.	87 0 .	13-1
Parameter		ort	Matrix	≠: <:	h~-22	2-89
cmccel	Rosi	ult	and the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second division of the second divisio		Wate	er.
	(mg/kg)	(mg/L)	(mg/kg)	on Limit		Not.
TVH as Gasoline TPH as Gasoline			(mg/kg)	(mg/L)	Analyzed	1
TEH as Diesel		6.1				ND
Benzene		1		0.1	06-20-38	
Toluane Ethylbenzene		0.035		0.005		NR
Total Xylenes		0.646		0.005	06-20-98	3
	Callenge, of the surface on the			0.005		
ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = milligram ag/kg = mi	nal par b	(1	·	0.005	06-20-85	3
ng/kg = milligram ng/L = milligram ND = Not detect concentry	ns per 1	110 gram :	parts p	per mill	ion (non)	
concentre	tion C	ompound(om.		(ppm)	•
ND = Not detec Concentre NR = Analysis	not rem	elow the	detectio	presen n linit	t at	
	т. Т	sared.			•	
thylbenzene, and	totatile	hydroca	CODE (mt			
EFA Method soor	ling to	Xylene is	Somers (P	(H) and) STEX) are	benzene,	toluene
Extraction accord extraction accord EFA Method 8020/6 graph (GC) equipp flame-ionization vater samples are the GC.	502 (mod	ified for	od 5030 f	ollo.red	e measure by analy	a by
the co	subloo	(FID)	n series	on deter	ctor (PIC) and a
graph (GC) equipy flame-ionization water samples are the GC.		ced to pu	irge-and-	trap int	extracts troductic	and
re measured by e	axtrack	rocarbond			•	
analysis by a couloped with	modifie	on accord	ling to E	PA Metha	poiling	points)
The-Total petrol are measured by a by analysis by a Equipped with an Subjected to purc SUMETotal extraction Coasured by extraction	FID. Sc	- EFA Met Dil over-	hod 8015	which u	1505 a cr	ottowed
		cap intro		water sa	amples ar	e
	4 W M M M M M M M M					
The second second second second second second second second second second second second second second second se			100 (Lit.			3.5-
TMATotal extracted by extra ceasured by extra SPA Method 3510 (with direct samp)	or Waton	follow	CO EPA M	ethod 35	550 for s	oils'an
· / ·	/ ¹ 1 /	tion into) a GC eq	Odified	EPA Neth	od 8015
APA Method 3510 1 with direct samp)	silver.		e oo eg	атрред и	vith an F	ID.
la Tran. Labora	No. of Concession, name					
APPLIED GEOSYSTEMS	Supers Supe	rvisor	6	<u>-27-83</u>		
	CINTER.		-	are Repo	orted	
	BURYICES A	S A HAZARDO	E OF CALIFOR	NA DEPARTI	MENT OF HEAL	лн
			WASTE TE	STING LABOR	ATODY	



Applied GeoSystems

· FRENICHAT

COSTA MESA DE PO

112

ANALYSIS REPORT

Report Prepared for: Applied GeoSystems 43255 Mission Blvd. Fremont, CA 94539 Attention: William R. Short Date Received:0-11-08Laboratory Number:06040W01Project:07043-1Sample:W-22-HW1Matrix:Water

Parameter	Resı (mg/kg)		on Limit (mg/L)	Date Analyzed	Notes
TVH as Gasoline TPH as Gasoline TEH as Diesel Benzene Toluene Ethylbenzene Total Xylenes		6.1 0.035 0.646 0.269 1.375	0.005	06-20-88 06-20-88 06-20-88 06-20-88 06-20-88	NR NR

mg/kg = milligrams per kilogram = parts per million (ppm). mg/L = milligrams per liter = ppm.

mg/L = milligrams per liter = ppm. ND = Not detected. Compound(s) may be present at concentrations below the detection limit.

NR = Analysis not required.

PROCEDURES

TVH/BTEX--Total volatile hydrocarbons (TVH) and benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction according to EPA Method 5030 followed by analysis by a EPA Method 8020/602 (modified for TVH) which uses a gas chromatograph (GC) equipped with a photo-ionization detector (PID) and a flame-ionization detector (FID) in series. Soil extracts and water samples are subjected to purge-and-trap introduction into the GC.

TFH--Total petroleum hydrocarbons (low-to-medium boiling points) are measured by extraction according to EPA Method 5030 followed by analysis by a modified EPA Method 8015 which uses a GC equipped with an FID. Soil extracts and water samples are subjected to purge-and-trap introduction into the GC.

TRE--Total extractable hydrocarbons (high boiling points) are measured by extraction according to EPA Method 3550 for soils or EPA Method 3510 for water followed by a modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

Tia Tran, Laboratory Supervisor

6-23-83 Date Reported

APPLIED GEOSYSTEMS IS CERTIFIED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH

July 7, 1988 UNOCAL Service Station No. 4845, San Leandro, California

LGE 370 13-3

Sample Number	Date Sampled	TVH/ TPH	Benzene	Ethyl- benzene	Toluene	Total Xylenes
W-30-MN1	05/12/87	16.12	0.36	0 67		·····
W-30-MW1	08/25/87	3.070	0.114	0.67	2.43	2.84
W-22-MM1	11/23/87	0.630	0.0059	0.085	0.709	0.666
W-29-MW1	02/17/88	5.1	0.16	<0.0005		0.1059
W-22-MW1	06/10/88	6.1	0.035	0.30	0.80	1.29
		0.1	0.035	0.269	0.646	1.375
W-27-3W2	05/22/87	0.0109	<0.0005	<0.0005	0.0010	~ ~ ~ ~ ~
W-25-MW2	08/25/87	0.0150		<0.0005	0.0003	<0.0005
W-22-14W2	11/23/87	<0.02	<0.0005	<0.0005	0.0017	0.0029
W-26-MW2	02/17/88	<0.02	<0.0005	<0.0005	<0.0005	<0.0005
W-21-MW2	06/10/88	<0.02	<0.0005	<0.0005	<0.0005	0.0007 0.0006
11 07 10-0					-4-0001	0.0046
W-27-MV3	05/22/87	0.0545		<0.0005	0.0012	<0.0005
W-25-1513	08/25/87	0.0028	<0.0005	<0.0005	<0.0005	<0.0005
17-22-14W3	11/23/87	<0.02	<0.0005	<0.0005	0.0031	<0.0005
W-26-MT/3	02/17/88	<0.02	<0.0005	<0.0005	<0.0005	<0.0005
W-21-M93	06/10/88	0.66	<0.0005	<0.0005	<0.0005	<0.0005
W-27-MW4	05/22/07					
W-25-M14	05/22/87	1.2139	0.0262	0.0354	0.0028	<0.0005
W-22-14174	08/25/07	0.1779	<0.0005	0.0006	0.0005	<0.0005
W-26-14W4	11/23/87	<0.02	0.0018	<0.0005	0.0010	<0.0005
W-20-14WA	02/17/88	0.08	0.0082	0.0025	0.0018	0.0055
	06/10/33	0.34	0.0008	<0.0005	<0.0005	<0.0005
DHS recom	mended					
concentr	ations:		0.0007	0 000	A 4	
				0.680	0.100	0.620
TVH: Tota TPH: Tota DHS: Depa cond	n milligram (ppm) al volatile al petroleu artment of contrations signation:	e hydroca 1m hydroc Health S for dri	arbons Carbons Services Inking wa V1 —— Moni —— Samp	[∞] @Commond	ed maximu	

. t. \$ ۰. . ij.

調理
FUELLENA CASE RECORD

REVIEW DATE: SITE NAME: STREET NO.: June STREET: CITY COLNTY: PRIORITY RANK: SUTETANCE/FECONDERN CAEE TYPE: ETATUE:

BUIL ANERGATIO NANIMUM REFILIAL COLL CONCERTRATION (PDM): COLL STATUS: DEFTM TO GREUNOMALEA: GROUNDWATER AFFECTED: MAXIMUM GROUNDWATER INVACT. GROUNDWATER STATUS: DRINKING WATER STATUS:

1

6192 (55 L1211-7

1281 - 30TH STREET OAKLAND, CALIF. 94603 (415) 451-3482

CHAMPCO

NATIONAL LINE CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CON

THE E.P.A. LD STIT / JD CACODOLOGAT .

I WOULD LIKE TO HAVE AN AUTHORIZED BULSAGE REOPERT ON THES FROM AS DOOD AS POSSELT.

THANK YOU WERE THON FOR YOUR HELP IN THIS INTEND.

CC : 11. JOE 27 840 - FEAN INDPROVED (MAI MARCHO , C...) 12. PONADU (, MARCAND - (GLORIA REDARDA LEMAN, 17. 17. 4. DECEMBER (1994)

. تقنه

S. SANAL

,	$c_{1}, c_{2}, c_{3}, c_{4}, c_{1}, $	04545		1415.
		·		
			DAT'.	
			UG NO.:	
			ATE SAMPLEN:	1750
		•	DAIL REVEIVED:	
CINTERCO			ALE AN DEIVED!	15, 12, 57
· · · 50	ar .			
		1.5.4		-
	∝то керате	, 1860 Alvara.	>	1
·		,		
· · · · · · · · · · · · · · · · · · ·	12 0 3 <u></u>	Samp	1: Type: Soil	
i i	Units	Detection Limit	<u>Al. 8' Depth</u> Loncen-	*2, 3' T
· · · · · · · · · · · · · · · · · · ·		and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s	intion	C. at on
· · · · · · · · · · · · · · · · · · ·	s. Nordi			
	₩g/kg	1	1900	
,				
	•			
		1 - Paurte	1. S. Mayler	1.5
		Ronald		
			T Chan	

. E

.

ę.

A Laboratory, Inc. vient Boulevard, 18 . Hayward, California 94545

(tun)

(415) 783-6960 *

	-					
	-				DATE:	6/09/87
	-				LOG NO.:	4308
	-				DAIE SAMPLED:	5/28/87
	-			4	DATE RECEIVED:	5/28/87
CUSTOMER:	Champe					
REQUESTER:	Jim Br	inker				
PROJECT:	CACOOO	10322,	Robinson	's Auto Repair,	1860 Alvarado, Sa	n Leandro
				•		
	-			Samp1	e Type: Soil	
	-	•			#1 11' 9"	#2 11' 9"
Method and Constituent			<u>Units</u>	Detection Limit	<u>Concentration</u>	Concentration
Modified EPA 8015:	Method	.t				
Volatile Hydrocarbons			mg/kg	2	16	< 2
	-					
	-					
	1 1 1					
	1					
	-			•	male H. ml_	
	-				maca 4. 121_	- Chew-

Ronald II. Ming Chew Supervisory Chemist

RHC: vs

.....

· · ... 1.12. 0.608

., *

 $M_{\rm e} \sim M_{\rm Me}$

- -

WE AND IS A PLAT FINN THAINS INCAIDS OF ONE ABARTANED AND

to the Maria and the first addition of - -

THE CAME WAS THEN AND TRONG BOLINDON AUTO MORTER, AND PROCEEDINGS, AND PROCEEDINGS, AND PROCEEDINGS, AND PROPERTY OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES OF THE STORES ÷

. A. . .

Lever and the second Sin and 27 (V 29

. . .



L HUNDLORD HAMADOODIO	(2.).tch typewriter) I Generalach US EPA IO No						Sacremon's C
WASTE MANIFEST			tar tent pelort ten 1 t t	יגן י וס	1 dayna 15 A 11		tila i duritik i tilsy Federacia
J Gent atter a Name and Mailing Address			-{ I _	A 11.4		·	
· · · · · · · · ·	· •			0.500	i a gat Grandaly	<u>.</u>	} \ <i>!</i> !
4. Generator's Frone (C.)					PPL (ntr	t. 41-	1 14 1 4 4
5 Transpurier 1 Company Name	t.	US EPA CI Humber			leese onter si		بیا، تسبیب اطراف کا دستم اس سین سرو بیب و از میشو
7 Transporter & Compuny Hame	<u>1. 1. 1. 1.</u>	US EPA PL NUMD		0	n 12 is Fila in	, ·	and the second
		'			•		
B. La grounded has may beams and Sate Address	10	J. CPA Ret. mtur		2		-	••••••••••••••••••••••••••••••••••••••
			:		4	1 .	<u>.</u>
	1120	ميلين المراجع الجواري الم	الربية من الم			j	• :
(US DOT upsergators (Including Proper Stup	2 12 Nome, Hazard Class. and		2 C	· · ;	Teles Constant	: 14 ; 11	t Vurte i
	-CALLOCAL		113.		·····		
							4 4
	he god to to	anly.	i 1/	·	1 1 1	ì	- 4 + - 1
b.					·		÷
1000231	146.54				1 3 1 1		
1000731 10440-	- np. in # -				. (' l l_		-
10440-	JPH 17014						
[[0.			4-4-4-			╼┼╼╍┥	
							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	-		11	11			E Martine
to be a support of the sale with the					2 'ar'	5	11 3 41 91
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	an a star of the star of the star of the star of the star of the star of the star of the star of the star of th					! ,	
						d,	
State Inc	6.6013					1	
1 statione	- 69-15 5		· · · · · · · · · · · · · · · · · · ·		مىشەر مەمىيەت بىرىمى دىنى دىنى دىنى		
16. Spount Handing Instructions and Province	s information		······································		unis serupto ser per tabler del	1.	
	d information				unite in sugar e a sugar sugar sugar sug	i '	
	s information		7 . Hermanna hermañ 24 .		يىلەر بەرىپەر بەي ئۇلەر ب ەر		annaptions i staron a spin
16. Spount Handing Instructions and 21 Briefs	aby declare that the contem	a ol foia sonsionen					
16. Spount Handing Instructions and 20 Selects 13. Control of CERTIFICATION: There home and and use classified, packed, much	oby declare that the contem so, and tabulad, and are to	is of this consignment at response in s	1 Em 16-34	d scernt for the s	lý oraznbed na hý hýžiwa	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	by proper phisp
 16. Spocint Handling Instructions and 2th Hier. 17. Climited and CERTIFICATION: Thermony and are classified, packed, marking and are classified, packed, marking and are classified, packed, marking and are classified, packed, marking and are classified. 	oby declare that the content sol, and tobeled, and are in gualions.	etize to renue the	··· · · ·	105 ¹¹ - 1	nto hy hig≵wr Na Llaig (n	iy acco	stang ta epplies di sidenica Eha
 16. Spount Handing Instructions and All Briefs 17. Collimited TOR'S CERTIFICATION: Thermonia and all collabolity packed, million and and are classified, packed, million and and national government as the intermation are or guesting pacetation. For the collabolity pacetation, if and the bold another and the presentation. The second and the presentation are and the presentation and the second and the presentation. 	sby declars that the content sd, and tabulad, and are in guiltions. By that I have a program in ble and that I have astacts ble and that I have a stacts	place to recrarity and place to recrarity and when practice and and the practice and and the even	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	siong to explice the denies line animality in a line
 16. Spocint Handling Instructions and 21 Briefs 17. C. 21., 200 TOR'S CERTIFICATION: Thermania and and an elapstic packed, much international and an elapsticide packed, much international powershart ac international powershart ac international powershart ac international powershart ac international powershart action of a field to be de anomenity a period 	by declare that the content ed, and tabuled, and are in guiltions. By that I have a program in the and that I have extent the and that I have extent the line at the beat we	but respects in g plead to residential with practimizer of the sed the sine of the set managements in the	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	dia denaa ha dia denaa ha anin' y naa 10 hava maa ala 20 hava
 16. Spount Handing Instructions and All Shiers 17. C. 21 CoTOR'S CERTIFICATION: Thermonia and and are classified, packed, much international poversion of the structure of theme for a quantity generation. For the structure to grant the present and the following to another the present and the following to minimize my seater guard. Instructure to minimize my seater guard. Instructure to minimize my seater guard. 	by declare that the content ed, and tabuled, and are in guiltions. By that I have a program in the and that I have extent the and that I have extent the line at the beat we	place to recrarity and place to recrarity and when practice and and the practice and and the even	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	dia denica i ha dia denica i ha dia denica i ha dia denica a da dia denica dia da dia dia dia dia dia dia dia dia dia dia
 16. Spount Handing Instructions and All Shiers 17. C. 21 CoTOR'S CERTIFICATION: Thermonia and and are classified, packed, much international poversion of the structure of theme for a quantity generation. For the structure to grant the present and the following to another the present and the following to minimize my seater guard. Instructure to minimize my seater guard. Instructure to minimize my seater guard. 	oby declare that the center ed, and tabuled, and are in guildlichs. By that I have a program in ble and that I have astacts use threat to human heath hum and aefact the boat we shuff.	but respects in g plead to residential with practimizer of the sed the sine of the set managements in the	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	dia denaa ha dia denaa ha anin' y naa 10 hava maa ala 20 hava
 16. Spocint Handling Instructions and All Shiers 17. Collimited TOR'S CERTIFICATION: Thermonia and and and clocklood, packed, million and and and national government of the many for a quantity presents. Large Collimited to a someably a collimited by react and the fill of an of the many for a quantity present and the large the present and the large the present and the large the present and the large the present and the large the present and the large the present and the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the large the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the pres	eby declare that the content ed, and tabulad, and are in guilations. By that I have a program in the and that I have associa- tion threat to human heatth high and celoct the boat we want to function the boat we have the boat the boat we find that the table to the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat we have the boat the boat the boat the boat the boat the have the boat the boat the boat the boat the boat the have the boat the boat the boat the boat the boat the boat the have the boat the boat the boat the boat the boat the boat the boat the have the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat the boat	but respects in g plead to residential with practimizer of the sed the sine of the set managements in the	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	10 02 02 10 0,001 02 10 0 02 02 02 10 10 10 02 02 02 02 02 10 02 02 02 02 10 02 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 0 10 br>10 0 10
 16. Spocial Handling Instructions and 2¹⁴ Briefs 17. Clinic Lint CR'S CERTIFICATION: Thermania and are classified, packed, mich mich all or classified, packed, mich mich all ord and to be community of an order to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of the field to be community of	eby declare that the content ed, and tobuled, and are in guildions. By that I have a program in the and that I have associa- tion threat to human heatth full and coloct the boat we will be the top to the formation of Materials.	bill responsions in s	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	10 021.20 1 ha 10 021.20 1 ha 10 021.20 1 ha 10 021 - 0 0 20 10 02 10 0 10 br>10 0 10
 16. Spocial Handling Instructions and All Briefs 17. Collimited TOR'S CERTIFICATION: Thermany and and collectived, packed, million and and are classified, packed, million to a classified, packed, million to a classified, packed, million to a classified, packed, million to a classified, packed, million to a classified packed, million to a classified packed, million to a classified packed, million to a classified packed, million to a classified packed, million to a classified packed, million to a classified packed and a classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the classified packet of the clas	eby declare that the content sd, and tabuled, and any in guildions. By that I have a program in ble and that I have a stact to threat to human heath hum and select the beat we should be the state of Materials t of Materials	bill responsions in s	ne olivent en sociale de la compositione		n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	10 02 02 10 0,001 02 10 0 02 02 02 10 10 10 02 02 02 02 02 10 02 02 02 02 10 02 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 02 10 0 10 br>10 0 10
 16. Spocial Handling Instructions and 21 Stiers 17. C. 21. An TOR'S CERTIFICATION: Thermony and an elevel in the packed, mark international and are classified, packed, mark international and the distance generation. For the statement of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of	eby declare that the content sd, and tabuled, and any in guildions. By that I have a program in ble and that I have a stact to threat to human heath hum and select the beat we should be the state of Materials t of Materials	be respects in g place to respect to g the pression of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the sky the scale of the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the s	ne olivent en sociale de la compositione	107 ···	n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	Arang ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aran
 16. Spocial Handing Instructions and A Briefs 17. C. 21. Controlling Controlling Antional Systems and an antional systems and an antional government of the material state of the control of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the process of the proce	eby declare that the content sd, and tabuled, and any in guildions. By that I have a program in ble and that I have a stact to threat to human heath hum and select the beat we should be the state of Materials t of Materials	be respects in g place to respect to g the pression of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the sky the scale of the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the s	ne olivent en sociale de la compositione		n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	Arang ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aran
 16. Spocial Handling Instructions and 21 Stiers 17. C. 21. An TOR'S CERTIFICATION: Thermony and an elevel in the packed, mark international and are classified, packed, mark international and the distance generation. For the statement of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of the packed of	eby declare that the content sd, and tabuled, and any in guildions. By that I have a program in ble and that I have a stact to threat to human heath hum and select the beat we should be the state of Materials t of Materials	be respects in g place to respect to g the pression of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the scale of the sky the sky the scale of the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the sky the s	ne olivent en sociale de la compositione		n n hy higt we ha lata gi lin hi va gi lin	чу ассо 1.5	Arang ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aran
 16. Spocial Handling Instructions and 21 Stiert. 17. Clinication Clarks CERTIFICATION: Thermany and and clocklood, packed, mich mich allor allorational governants. I see the many best of quality persons that and the present and the lock anomability a construction of the present and the lock of michaeles the present and the lock to minimize my wester gladed with the present of the the lock of michaeles and the lock of the present of the the present of the the lock of the michaeles and the present of the the lock of the present of the the lock of the present of the the lock of the present of the the lock of the present of the the lock of the present of the the lock of the present of the the present of the the present of the the present of the the present of the the present of the the present of the the present of the the present of the present of the the present of the the present of the present of the present of the the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the	eby declars that the content sd, and tabulad, and are in quistions. By that I have a program in ble and that I have associ- tion and celect the best we start to human heath turn and celect the best we start for the formation of the start of the start of the start of the tof the tabulats 8	be respects in pro- ploce to reprove the station practicity of the state menagement is us constants processory processory processory processory processory			<pre>in a lig high ac in a g in a in a g in a in a sod inat in a sod in a sod in a sod in a sod in a sod in a sod in a</pre>	чу ассо 1.5	Arang ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aran
 16. Spocial Handing Instructions and A Briefs 17. C. 21 AnTOR'S CERTIFICATION: Thermania and and an elapship of packed, marks international government of them international government of them international government of the provide the present of the first of the present li>	eby declare that the center ed, and tabulad, and are in guildions. By that I have a program in ble and that I have a stace une threat to human heath hum and celect the beat we are stated by the beat we are stated by the beat we be to Materials t of Materials B receipt of hezerdous represent	be respects in g place to replace that the press to replace that a the press to a set add the class of the set of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the press of the press of the class			<pre>in a lig high ac in a g in a in a g in a in a sod inat in a sod in a sod in a sod in a sod in a sod in a sod in a</pre>	чу ассо 1.5	Arang ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aran
 16. Spocial Handling Instructions and 21 Stiert. 17. Clinication Clarks CERTIFICATION: Thermany and and clocklood, packed, mich mich allor allorational governants. I see the many best of quality persons that and the present and the lock anomability a construction of the present and the lock of michaeles the present and the lock to minimize my wester gladed with the present of the the lock of michaeles and the lock of the present of the the present of the the lock of the michaeles and the present of the the lock of the present of the the lock of the present of the the lock of the present of the the lock of the present of the the lock of the present of the the lock of the present of the the present of the the present of the the present of the the present of the the present of the the present of the the present of the the present of the present of the the present of the the present of the present of the present of the the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the present of the	eby declare that the center ed, and tabulad, and are in guildions. By that I have a program in ble and that I have a stace une threat to human heath hum and celect the beat we are stated by the beat we are stated by the beat we be to Materials t of Materials B receipt of hezerdous represent	be respects in pro- ploce to reprove the station practicity of the state menagement is us constants processory processory processory processory processory			<pre>in a lig high ac in a g in a in a g in a in a sod inat in a sod in a sod in a sod in a sod in a sod in a sod in a</pre>	чу ассо 1.5	Arang ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aranget a ta englise Aran
 16. Spocial Handing Instructions and A Briefs 17. C. 21 AnTOR'S CERTIFICATION: Thermania and and an elapship of packed, marks international government of them international government of them international government of the provide the present of the first of the present li>	eby declare that the content ed, and tabuled, and are in guildions. By that I have a program in ble and that I have associe two threat to human heath hum and select the best we select the best we select the best we are select the best we for Mutanials t of Materials receipt of hezeroous represent 3	be respects in g place to replace that the press to replace that a the press to a set add the class of the set of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the class of the press of the press of the press of the class			 i a 'iy h'gi wa i a gi a 'i a 'i a 'i a 'i a 'i a 'i a '	1 2 2 C	Aran Carlos I ha Ara de 1. co I ha Ara de 1. co I ha Aran Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlos France Carlo

U

ļ

ľ

		t. 5	-	-7	(_)
FOR DOL AL AGENCY LESS DAY IN CONSERVATION LINE ALCONTRACTION OF A CONSERVATION LINE ALCONTRACTION OF A CONSERVATION LINE ALCONTRACTION OF A CONSERVATION LINE ALCONTRACTION OF A CONSERVATION LINE ALCONTRACTION OF A CONSERVATION LINE ALCONTRACTION LINE		UNDERGREUND STORMOLE	TA MUMMERCHEE	D BELEASE (LEAK) / CO #	MINATION POLICE
ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE ADDE				FOR LOCAL AGENCY USE ONLY LHEREBY CERTIFY THAT LAM A CENTRE REPORTED THIS INFORMATION TO L	a na na mana mangkan na kanang na kanang na kanang na kanang na kanang na kanang na kanang na kanang na kanang
		· · · · · · · · · · · · · · · · · · ·		SIGNATU	م میں اور اور اور اور اور اور اور اور اور اور
	A103211	· · · · · · · · · · · · · · · · · · ·			
		· · ·			-
	4 á .	. /S			
	ā,	FAG (1) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			(Pripi
A HULL, 1671211 MODEL FARX [] CONVERCAL [] PROUCHARL [] RUNDL THAT FUELSTAT. A HULL, 1671211 MESD SHITAL [] OTHER OTHER A HULL, 1671211 MENDOUSDE TO STOCHE THANK [] OTHER I HULL, 1671211 A HULL, 1671211 MENDOUSDE TO STOCHE THANK [] OTHER THUK [] OTHER OTHER A HULL, 1671211 MENDOUSDE TO STOCHE THANK [] OTHER OTHER A HULL, 1671211 MENDOUSDE TO STOCHE THANK [] OTHER OTHER A HULL, 1671211 MENDOUSDE TO STOCHE THANK [] OTHER OTHER A HULL, 1671211 MENDOUSDE TO STOCHE THANK [] OTHER OT	LL	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·		
G CUMANDALINE CUMANTALIE CUMANTALIE G CUMANTALIE CUMANTALIE		· · · · · · · · · · · · · · · · · · ·		ISROIAL INDUSTRIAL	
Image: State in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state in the state	9171-5 51-55	-		CUITACT PERSON	
CURL TETY LOS I GALLONG)			·····		()
DATE DISC TYPERED HOT DISCOVERED EXECUTIONY CONTROL SUBCE ALL FOR ALL FRANCE OF DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED TAINE TELED TAINE TELED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVER DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVERED DATE DISCOVEREDISCOVERUE DATE DISCOVERED DISCOVERUE <t< td=""><td>NVOLVED</td><td></td><td>G</td><td>、 、</td><td>4 777</td></t<>	NVOLVED		G	、 、	4 777
Image: International international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international international internatione internatinternatinterevent international international internat		DATE DISC DVERED			
ALL CHARGE CARE OF TAILS CLAPTER I REFLORE CONTENTS REFLACE TAILS CLOSE TAILS ALL CHARGE CARE OF TAILS ALL CHARGE CARE OF TAILS CLAPTER I CLAPTER III I CLAPTER III I CLAPTER III I CLAPTER III I CLAPTER III I CLAPTER III I CLAPTER III I CLAPTER III III III III III III III IIII III	VEATER			······································	CCK ALL THAT APPLY
G VED 1 VY TY		11 YO CONTRACT CONTRACTOR		FENCVE CONTENTS	REFEACE TANK
TANK LEAK UNKNOWLI GAL FIBERGLASS OVERTILL A.PTUHERALU 1 PIPING LEVK AGE YRS STEEL CORROSION UNKNOWN CHECK ON LOW OTHER UNKNOWN OTHER DRINKING WATER CHECK OLAY & WATER WELLS HAVE ACTUALLY DEEN AFFORTS CHECK ON LOW SOL ONLY GROUND WITER DRINKING WATER - (CHECK CLAY & WATER WELLS HAVE ACTUALLY DEEN AFFORTS CHECK COME CNLY SOL ONLY GROUND WITER DRINKING WATER - (CHECK CLAY & WATER WELLS HAVE ACTUALLY DEEN AFFORTS CHECK COME CNLY SOL ONLY GROUND WITER DRINKING WATER - (CHECK CLAY & WATER WELLS HAVE ACTUALLY DEEN AFFORTS CHECK COME CNLY SOL ONLY GROUND WITER DRINKING WATER - (CHECK CLAY & WATER WELLS HAVE ACTUALLY DEEN AFFORTS SITE KAVESTICATION EN PROGREDS IDSFINING EXTENT OF PROBLEMS CLEANUP IN PROGREDS [] CLEANUP IN PROGREDS [] UNKNOWN SITE KAVESTICATION EN PROGREDS IDSFINING EXTENT OF PROBLEMS CLEANUP IN PROGREDS [] CLEANUP IN PROGREDS [] UNKNOW ANTICATION EN PROGREDS [] INNALESCALAR GOL CHER VERSIONALING EXTENT OF PROBLEMS CLEANUP IN PROGREDS [] CLEANUP IN PROGREDS [] EWALUATING CLEANUP ACTERNIARY GOL CHER VERSIONALING IN TAKEN POST OLEANUP MONITORING IN PROGRESS []	6				· · · · · · · · · · · · · · · · · · ·
CHECK ON LOTEN CHECK ON LOTEN	딇	PIPING LEAK			
CHECK CONE ONLY CHECK CONE ONLY CHECK CONE ONLY CHECK CONE ONLY CHECK CONE ONLY CHECK CONE ONLY CHECK CONE ONLY CONTAINED POST CLEANUP MONITORING IN PROGRESS CONE ONLY CHECK CAPPROPRIATE ACTION IN PROGRESS (OPFINILIS EXTENT OF PROSILEM) CHECK CAPPROPRIATE ACTION TAKEN POST CLEANUP MONITORING IN PROGRESS NO FUNDS AVAILABLE TO PRICEED EVALUATING CLEANUP ALTERNATIVE CHECK CAPPROPRIATE ACTION TO AND IN PROGRESS CONTAINED TO PROVE FREE PRODUCT (FP) CONTAINMENT DARRES (CR) CONTAINMENT AT HOD SUP (SU) CONTAINT AT HOD SUP (SU) CO	1:4:00	CHECKON . ONLY		OTHER	CPALL CONSA
Grieck AFROPRIATE ACTION(S) (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS) Grieck AFROPRIATE ACTION(S) (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS) Grieck AFROPRIATE ACTION(S) (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS) Grieck AFROPRIATE ACTION (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS) Grieck AFROPRIATE ACTION (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS (ED) Grieck AFROPRIATE ACTION (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS (ED) Grieck AFROPRIATE ACTION (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS (ED) Grieck AFROPRIATE ACTION (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS (ED) Grieck AFROPRIATE ACTION (SEE DACK POT DETAILS) INDICIDES AVAILISEE TO PROVIDE THE ACTION OF DETAILS (SEE TO PROVIDE THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE ACTION OF THE AC	}		GROUND"MER [DRINKING WATER + (CHECK CITY #	WATER WELLS HAVE AUTUALLY BEEN AFFECTS
CHECK AFPROPRIATE ACTIONS) (SEE DACK POIL DETAILS) CAP SITE (CO) CONTAINMENT DAHRIES (UB) EACAVATE & DISPOSE (ED) HEMOVE FREE PRODUCT (FP) ENHANCED BID (CERREDATION (CONTAINMENT DAHRIES (UB) EXCAVATE & TEFAT (ET) FUNDE & TREAT GROUND WATER (GT) REPLACE CUPPLY (RD) HEATMENT AT HOD SUP (CD) NO ACTION REOL NOTO (RAV) OTHER (OT)	CUTALA CLARLA	ar	ANUP MONITORING IN PROGRESS		
	17~	CHECK APPROPRIATE ACHONIS) (SEE CACK FO	CETAILS)		and a second an and provide states when a second states of a second state to any second states of states of
	1 2 1	CONTAINMENT BAHRIES (UB)	EXCAVATE & TEFAT(ET)	EUMP & TREAT GROUND, MAT	
	103452 10107	I DREATMENT AT HOD "UP ((10)	L 1 NO FO TON REQUISION AND		
		UP (UP)			

.

DEL MONTE CORPORATION

. *

I

Π

. •

Geo/Resource Consultants, Inc.

, '

.....

FUELLEAK CAGE RECORD

REVIEW CATE: 7 7000000 SITE NAME: SAN GEARNYD TH STREET NO. 1- THRAFAN AND THRAFT CITY: 700 CANTOR AND THRAFT CITY: 700 CANTOR SUBSTANCE/SELONDARY: CASE TYPE: 0 THREE AN

COLL APPELIED Y AN AM SOLL CONCENTRATION (DDF): 247 MAXIMUM RECIDUAL SOLL CONCENTRATION (LT) GOLL ETAINSIM LEPTH TO GROUNDWATER: 24 GROUNDWATER AFFECTED: 4 MAXIMUM GROUNDWATER IMPACT: 0.0 GROUNDWATER STATUS: A DRINKING WATER STATUS: A DRINKING WATER STATUS: A REMEDIAL ACTION: AT DATE OF LAST CORR.: 4 /13/87

2.20

....

G.K.

• • •

÷ -

TJC



Consultants in Waste Management, Environmental Contrôl and the Geotechnical Sciences

January 22, 1987 Project 156-20.2

Lincoln Property Company 101 Lincoln Centre Drive Foster City, CA 94404

Attention: Mr. John Greer

Subject:

Monitoring Well Installation San Leandro VIII (Former Del Monte Site) Thornton Avenue at Alvarado Street San Leandro California Alameda

Gentlemen:

During the demolition operation of the existing structures on site, an underground bunker oil tank, located beneath the former boiler room was encountered (see Figure 1, Site Plan). On December 22, 1986, Beta Associates was retained by Lincoln Property Company to obtain two soil samples from the base of the tank excavation and have them analyzed, as specified by the City of San Leandro Fire Department.

The two soil samples (HS-1, HS-2) obtained were located in the areas that represented the highest potential for contamination. Both soil samples were analyzed for oil and grease, as instructed by the City of San Leandro Fire Department, to determine if oil contained within this tank had leaked and contaminated the underlying soil. Results of the analyses revealed that 83.2 parts per million (ppm) and 269 ppm were detected in HS-1 and HS-2, respectively.

Since one of the soil samples revealed oil contamination in excess of 100 ppm, notification was made to the Regional Water Quality Control Board (RWQCB), at the request of Mr. Joe Ferreira of the San Leandro Fire Department, to determine if additional work would be warranted. Mr. Peter Johnson of the RWQCB conveyed to us that since one of the soil samples revealed over 100 ppm of oil, then a monitoring well would have to be installed within ten feet of the tank as specified in the RWQCB's "Guidelines for Addressing Fuel Leaks". Mr. Johnson further requested that soil samples be obtained at five foot intervals from a depth equivalent to the base of the tank excavation to the water table and analyzed for total petroleum hydrocarbons and benzene, toluene, and xylene (ETX). The ground water sample obtained from the well was also to be tested for total dissolved petroleum hydrocarbons and BTX.

 \ll

Beta Associates.

As in previous borings drilled on-site, very stiff clays of intermediate to high plasticity were encountered from ground surface to a depth of approximately 26 feet where a wet, fine to coarse grained, gravelly sand was encountered which extended to the bottom of the boring at 35 feet. The initial depth to ground water was measured at approximately 25.5 feet below ground surface with a static ground water level measured at 23 feet. A log of the exploratory boring is presented in Appendix A.

- 2 -

Findings

All augers and downhole tools were thoroughly steam cleaned before drilling commenced, and all soil sampling apparatus was steam cleaned between each sampling run to prevent transfer of contamination. The subsecutible pump used to develop and sample the well was also steam cleaned before being

The well was then developed using a submersible, positive displacement, bladder pump to ensure that clean ground water was flowing through the slotted interval freely. When the required number of well volumes were removed, water samples were obtained. Soil and ground water samples to be icsted were transported in a refrigerated container to California Water Labs of Modesto, accompanied by appropriate channel-customy decuments.

On January 14, 1987, the ground water monit ring well (MWII-1) was installed to determine if oil that had leaked from the tank had impacted ground water quality. The boring was drilled with eight-inch diameter hollow stem augers and undisturbed soil samples were obtained at 15 feet, 20 feet, and 25 feet below ground surface. All soil samples obtained were contained within two-inch brass liners, wrapped in foil, capped at both ends, labeled, and kept refrigerated for transportation to the laboratory for analysis. The boring was terminated ten feet below the first encounter of ground water. Two-inch diameter, threaded, FVC well cosing was then installed through the hollow stem augers with the bottom ter feet of the casing being factory slotted to allow the inflow of ground water. The annular space around the slotted interval of the well was preched with coarse sand to act as a filter to screen out fine grained sand and silt that may clog the slotted interval. A two-foct thick bentonite cap was placed on top of the sand pack filter followed by a concrete annular scal up to ground surface. The well was completed within a locking vault to prevent unauthorized access. A well construction detail is presented on

Description of Me'd Investigation

January 22, 1987

Project 156-2012

January 22, 1987

. .

-

Project 156-20.2

Chemical Analysis

soil samples obtained at 15 feet, 20 feet, and 25 feet from Mwil-1 and the ground water samples were analyzed for 1) total petroloum hyudrocarbons and 2) BTX as specified by Mr. Johnson. The analytical procedures followed were those outlined in the RWQCB's "Guidelines for Addressing Fuel Leads".

Pesults of the soil and ground water analyses revealed that none of the constituents of concern were detected. Furthermore, viscal inspection of a bailed ground water sample showed no evidence of floating product or place. Results of the chemical analyses are presented in Appendix 5.

Conclusions/Recommendations

Since laboratory analysis of soil and ground water samples obtained i rom MWHI-1, and from DH-3 from our initial investigation have revealed no total hydrocarbon or BTX contamination, we feel the oil contamination detected in HS-1 and HS-2 is confined to the tank excavation, and that no significant loss of product was released from the rank. Since the entire area in the vicinity of the former oil tank will be paver, thus folipiting the infiltration of any surface water that could all the total majort shall concentrations of oil in the soil, and used as a public street, we recommend the excavation be backfilled and compacted in accordance with site construction specifications.

To comply with requests made by the RWGCB and construction schedules for the water line installation and road paving at the site, we recommend an accelerated monitoring program be implemented.

To date, installation of the water line beneath the proposed street is to take place by the end of February, 1987, with street paying to immediately follow. Therefore, at least two more ground water samples should be obtained from MWII-1 and field checked for sheen and/or floating product as well as analyzed for total dissolved retroleum hydrocarbons and BIX. Ground water samples will be obtained at the beginning of February and March, 1987.

Upon receipt of all laboratory analyses from each monitoring period, we will submit a report discussing our findings. At a minimum, the report will contain depth to ground water, ground water sampling method, and all analytical results. If there is a measurable thickness of fleating product on the water surface, the report will so state. January 22, 1987

Σ.

Project 156-20.2

-

If you have any questions, please do not how date to call.

Respectfully submitted,

DEPA ASSOCIATES

Laniel L. Shafer Project Geologist

Jack 7. McCollouth Registered Geologist #1559 Certified Engineering Geologist #905

DLS: JFM: bank

cc: Mr. Dan Anderson, Lincoln Property Company Mr. Jack Michler, Lincoln Property Company Mr. Peter Johnson, Regional Water Guality Control Bound Mr. Joe Ferreira, City of San Leandro Fire Department

- 4 -

Beta Associates_

California Water Labs, Inc. P. O. BOX 4249 1430 CARPENTER LANE - SHITE G MODESTO, CA 953/52

	PHONE (209) 52	7 4050		
urveyor Beta and Associate	25	Lab I.D.	Listel	
treet 1365 Vander Way		Furchase Ord	er 156-20.	2
ity San Jose, CA Zip	95112	Referring La		
ample I.D. Del Monte tank	cexcavation	Date Collect		6
ollected by: purveyor				
CWL I.D.	Sample	I.D.	Oil & Grease	(no/ka)
				(
P-38191	HS-1		83.2	
P-38192	HS-2		. 269	
			٠	
·				
· · · · · · · · · · · · · · · · · · ·				
		·		
		•		
			~	
·		· · · · · · · · · · · · · · · · · · ·	<u>.</u>	
ate Received 12-23-86	· · ·			

Date Started 1-6-87 1-8-87 Date Completed

سىم.

A :	-	1	
By: Philler T?			
and the first of the	فتعاد أسامه		

California Water Labs, Inc. P O. BOX 4249 1430 CARPENTER LANE - SUITE G MODESTO, CA 95352

PHONE (200) 527-4010

RUSH (silver)

Purveyor	Deta	រ សាល	n ns:	soc	late	S	
Street	1365	5 Vai	pder	Wa	Y		
City S	San Jo	se,	CA		Zip	95112	
Sample I.	D.	MU I	I -	1	<u>י די</u> 15 י		
Collected	by:	Ca	rie	Cu	mmine	us	
				-			-

P-33983 Lab I.D. Punchase Order 156-20.2 Feferring Lab Late Collected 1-14-87

DEL MONTE

otx

SOIL

COMPOUND	RESULTS ug/kg	DETECTION LIMIT U g/kg
BENZENE	ND ·	10
TOLUENE	ND	10
XYLENE	ND	10

Date Received	1-14-87
Date Started	1-18-87
_ Date_Completed	1-19-87-

Π

Rinhand Decon 8y

California Water Labs, Inc. P. O. BOX 4240 1430 CARPENTER LANE - SUITE G MODESTO, CA 95352 PHONE (209) 527-4050

RUSH (silver)

<u>Furveyor</u> Bet	a and Associates
Street 136	5 Vander Way
City San Jo	ose, CA Zip 95112
Sample I.D.	MW II - 1 20'
Collected by:	Carrie Cummings

Lab I.D. P-38	981	
Purchase Order	156-20.2	
Referring Lab		
Date Collected	1-14-87	

DEL MONTE

BLX

SOIL

COMPOUND	RESULTS Ur /kg	DETECTION LIMIT ug/kg
BENZENE	ND	10
TOLUENE	ND	10
XYLENE	ND	10

Date Received	1-14-87		
Date Slarted	1-18-87		
Date Completed	1-19-87		
-		By: Mahaid Regarder	

- -

California Water Labs, Inc. P. O. BOX 4349 1430 CARPENTER LANE - SUITE G MODESTO, CA 95352 PHONE (200) 437,4050

PHONE (209) 527-4050

RUSH (silver)

furveye	or Beta	and A	ssociates
Street	1365	Vande	r. Way
City	San Jo	se, CA	Zip 95112
Sample	I.D.	MW T	- 1 25'
Collect	ed by:	Carri	e Cummings
		:	

17

Lab I.D. P-38985 Purchase Order 156-20.2 Referring Lab Date Collected 1-14-87

DEL NOME

BIX

SOIL

1			
	CMPOLND	RESULTS ug/kg	DETECTION LIMIT U.g/kg
BENZENE		ND	10
TOLUEINE		11D	10
XYLENS		ND	10 .

Date Received	1-14-87	
Date Started	1-18-87	 \sim
Date Completed	1-19-87	 Mai Da .
• • • •		 By MChn. al Marany

California Water Labs, Inc. P.O. BOX 4249

RUSH (silver)

と見 きたいおいい

Conta

Beta and Associates Purveyor Listed Lab I.D. 1365 Vander Way Street 156-20.2 Purchase Order San Jose, CA City Zip 95112 Referring Lab Listed Sample I.D. 1-14-87 Date Collected Carrie Cunmings Collected by: DEL MONTE SOIL CWL I.D. Sample I.D. Total Hydrocarbons P-38983 15' MW II-1 < 1 mg/kg P-38984 MW II-1 20' < 1 mg/kg P-38985 MW II-1 25' < 1 mg/kg WATER

CWL I.D.	Sample I.D.	Total Dissolved Hydrocarbons
P-38986	MW II-1	< 50 ua/L

Date	Received	1-14-87	
Date	Started	1-20-87	
Date	Completed	1-20-87	By: Nichard Mu

Beta Associates

一次 18:12 世代

Consultants in Waste Management, Environmental Control and the Geotechnical Sciences

April 13, 1987 Project 156-20.2

51157

- - - .

Lincoln Property Company 101 Lincoln Centre Drive Foster City, California 94404

Attention: Mr. John Greer

Subject: March, 1987 Ground Water Monitoring Report San Leandro VIII (former Del Monte Site) Thornton Avenue at Alvarado Street San Leandro, California

Gentlemen:

On March 6, 1987, depth to ground water in MWII-1 was measured to be 23.56 feet below ground surface. Prior to well sampling, a ground water sample was obtained with a clear plastic bailer to check for sheen or floating product. Field observation of the sample through the bailer revealed there to be no sheen or measurable thickness of floating product on the water surface.

Upon completion of all field observations, the well was pumped with a submersible, positive displacement, bladder pump until the discharged water was relatively clean. Then approximately five to six well volumes were removed from the well before a sample was obtained. The ground water sample obtained was stored in a refrigerated container and transported to California Water Labs of Modesto, accompanied by appropriate chain-of custody documents, and analyzed for total dissolved petroleum hydrocarbons and benzene, toluene, and xylene (ETX), as outlined in the RWQCB'S "Guidelines for Addressing Fuel Leaks".

Laboratory analysis has revealed that the initial ground water sample obtained during well installation, the sample obtained during the February monitoring period, and the sample obtained for the March monitoring period are free of total dissolved petroleum hydrocarbons and BTX contamination. Futhermore, all ground water samples obtained from the wells installed during the environmental assessment of the property, in November, 1985, revealed the ground water to be free of total dissolved hydrocarbon and oil contamination (see Beta Associates' report entitled "Soil and Ground Water Contamination Investigation, Del Monte Site, San Leandro, California", dated January 28, 1986). Results of the March, 1987 monitoring period are attached.

359 Vander Way • San Jose, California 95112 • (408) 295-7483

April 13, 1987

• :

Project 156-20.2

Conclusions/Recommendations

Since the oil concentration detected in the tank excavation was relatively low (269 ppm) and the predominant soil type beneath the subject site is a very stiff clay of intermediate to high plasticity, the potential for migration of any residual concentrations of oil remaining in the soil is extremely remote. Futhermore, extensive testing of soil and ground water samples from the area of the former underground tank has revealed that the oil that leaked from the tank has not migrated beyond the confines of the tank excavation.

To futher inhibit cny potential migration of the residual cil in the soil, the site is presently being redeveloped, with buildings, concrete, and asphalt paving covering 100 percent of the site, thus preventing infiltration of surface water that could aid in carrying any residual concentrations of oil down to the perched ground water table.

Therefore, to accomodate the construction schedule prepared for the new development, we recommend the monitoring program be discontinued and the monitoring well installed be permanently closed in accordance with all local regulatory requirements.

If you have any questions concerning this matter, please do not hesitate to call.

Respectfully submitted,

BETA ASSOCIATES

Daniel L. Shafer Project Geologist reviewed by:

Jack & gree

Jack E. McCollough Registered Geologist #1539 Certified Engineering Geologist #905

cc: Mr. Dan Anderson, Lincoln Property Company Mr. Jack Michler, Lincoln Property Company Mr. Peter Johnson, Regional Water Quality Control Board Mr. Joe Ferreira, City of San Leandro Fire Department

- .

California Water Labs, Inc. P. D. BOX 4249 1430 CARPENTER LANE -- BUITE G MODESTO, CA 95352 PHONE (208) 527-4060

2

Ĩ

D

.

0

D

. . .

_

ಕ್ಟ

- ج سر

Aurveyor Jere Street 1369	Vander War
City San J	hundred way
Sample T.D.	OSE, CA AD OSILO
Callested buy	Det Monte Data Collected
Collected by:	- the runnas
Sample Location	Thornton and Alvarado, San Keandro
•	
	Total Dissolved Hydrocarbons
	.<50 ug/L
•	
e Received 3-6	-87
e Started 3-1	0-87
Completed 3-1	3-87 By: Oilda Stall
-	- Cunter to wak 1

Callfornia Water Labs, Inc.

1430 CARPENTER LANE - GUITE G MODESTO, CA 95352 PHONE (209) 927-4063

(404) 937-4060.	•
-----------------	---

Aurveyor Beta and Associated	
Vandor the	Lab
	Purc
	Refe
Collected by: Tim Furnas	Data

A

()

Lab T.D. P-41810	
Purchasa Ordan	56-20.2
Referring Lab	
Data Collected 3-6	-87
	and the face of the local division of the second second second second second second second second second second

Sample Location: Thornton and Alvarado, San Leandro

DIX

	COMPOUND	RESULTS	
	BENSENE	ug/Li	DETECTION LIMIT 119/L
ļ	TOLUENE	ND	10
ŀ		ND	10
L	XYLENE	ND	
			01

Date Received 3-6-87
Date Started 3-6-87
Data 2
Date Completed 3-13-87
the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second

By Claubic Ald In

FUELLEAK CASE RECORD 8,3,87 REVIEW DATE: SITE NAME: Del Monte. STREET NO .: 850 STREET: Thornton CITY: Som Locardero COUNTY: 47 -. . PRIORITY: 12 RANK: ---SUBSTANCE/PRIMARY: -SUBSTANCE/SECONDARY: ~ CASE TYPE: ... STATUS: VI SOIL AFFECTED: 🛰 MAXIMUM SOIL CONCENTRATION (ppm): MAXIMUM RESIDUAL SOIL CONCENTRATION (PPm): SOIL STATUS:N DEPTH TO GROUNDWATER: 4 GROUNDWATER AFFECTED: MAXIMUM GROUNDWATER IMPACT: -GROUNDWATER STATUS: -DRINKING WATER AFFECTED DRINKING WATER STATUS: REMEDIAL ACTION: NT DATE OF LAST CORR.: 1 128180

Beta Associates Consultants in Waste Management, Environmental Control and the Geotechnical Sciences C 652 January 28, 1986 Project 156-20.1 Lincoln Property Company 101 Lincoln Centre Drive Foster City, California 94404 Attention: Mr. John Greer Subject: Soil and Ground Water Contamination Investigation Del Monte Site 850 Thornton Avenue

Gentlemen:

San Leandro, California

This report contains details of our investigation to determine whether the soil and/or ground water beneath the subject site had been contaminated due to past or present site usage or from neighboring properties. The field investigation consisted of drilling and installing temporary monitoring wells, and analyzing soil and ground water samples obtained from these

IALAMIDA

Site Description

The subject site is located approximately 3/4 miles east of Highway 17 on Thornton Avenue with its eastern property boundary bordered by the Southern Pacific Railroad in San Leandro, California (see Figure 1, Vicinity Map). The northern portion of the site consists of a large, vacant warehouse and an operational machine shop, in front of which stand numerous pole sheds. The southern portion of the site consists of numerous warehouses, used for the storage of food products, and numerous greenhouses for plant Jultivation. Approximately one-third of the subject site will remain under the ownership of the Del Monte Corporation (see Figure 2, Site Plan).

<u>Geclogy</u>

The site is located at the eastern end of San Leandro Valley on the western flank of the Diablo Range, about three miles southeast of San Leandro Bay. The site lies on the alluvial deposits of the San Leandro alluvial cone near ine boundary of the San Lorenzo alluvial cone.

The San Leandro alluvial-cone-is a gently sloping alluvial fan extending beyward from the base of the Diablo Range. It is composed of a series of worly flat-lying lenses of sand and gravel separated by extensive clay コメモナたい

Junuary 28, 1986

Description of Field Investigation

Six exploratory test borings were drilled at the subject site in order to determine if the soil and/or ground water beneath the site had been contaminated due to present or prior site usage or if any adjacent, off-site facilities may have caused a contamination problem. Locations of these bore hole were selected on the basis that the areas they covered represented the highest potential sources for contamination.

Drill holes one and two were located at the eastern property boundary adjacent to where barrels are stored on the neighboring property. Drill hole three was located adjacent to the boiler room where water softeners and cleaners for tin and zinc are stored and used. Drill hole four was located next to the machine shop in the northern portion of the site where solvents and oils are used to clean truck parts for repair. In addition to the storage of solvents and oils at the machine shop, the soil on the west side of the shop has been contaminated as a result of spillage of these same western property boundary where numerous surface stains of oil and grease the down ground water gradient direction of the pesticide and herbicide storage shed located adjacent to the posticide and herbicide hole six was located adjacent to the underground gasoline tank next to one of the warehouses. All drill hole locations are presented on Figure 2.

In drill holes one through five, undisturbed soil samples were taken at two feet, four feet, six feet, and ten feet below ground surface and then at five foot intervals down to the shallowest ground water table. In drill hole six, the first undisturbed soil sample obtained was at eight feet below ground surface, which is one foot below the depth at which the bottom of the underground gasoline tank rests. The borings were terminated approximately five to seven feet into the saturated soil when a stiff clay layer was installed, with the bottom ten feet of the casing being factory slotted to allow the inflow of ground water. The annular space around the slotted interval of the casings was packed with coarse sand to act as a filter to screen out fine grained sand and silt that may clog the slotted interval.

The wells were then developed using a submersible, positive displacement, bladder pump to ensure that clean ground water was flowing through the slotted interval freely. When the required number of well_volumes were removed, water samples were obtained. Soil and ground water samples were transported in refrigerated containers to California Laboratories of Mcdesto, California.

Due to the high potential for contamination at the site, many chemical tests were performed on the camples submitted for unalysis. Soil and ground water

-2-

.

Beta Associates___

— B

..

2. s ...

January 28, 1986

samples were analyzed for 1) volatile organic and aromatic constituents using EPA Test Method 624, 2) base, acid, and neutral components using EPA Test Method 625, 3) pesticides and PCBs using EPA Test Method 608, 4) herbicides using EPA Test Method 619, 5) gasoline using a Flame Ionization Detection Method, and 6) oil and grease using a Soxhlet extraction method.

During the drilling operation, all augers and down-hole tools were steam cleaned between borings, and all sampling apparatus was steam cleaned between each sampling run to prevent transfer of contamination. The submersible pump used to develop and sample the wells was also steam cleaned between each use.

After all soil and ground water samples had been obtained and analyzed, the wells were closed against future use. The well closures consisted of the casings being pressure-grouted with a bentonite-cement slurry and the annular space around the unperforated casing being filled from the bottom up with the same slurry.

Findings

Drill hole one was drilled to a total depth of thirty-two feet. Cleys of low to intermediate plasticity were encountered from the surface down to a depth of approximately twenty-nine feet when a wet, medium dense gravel was encountered. The initial water level measured in drill hole one was 26.6 feet. Drill holes two through six were drilled to total depths ranging from thirty-two feet to thirty-six feet. Clays of intermediate plasticity were encountered interbedded with medium dense sands. The initial water levels measured in drill holes two through six were 26.5 feet, 27 feet, 22.4 feet, 26.2 feet, and 25.4 feet. Static water levels were measured at an average of five feet above the initial water levels recorded in each drill hole

Analysis of the soil and ground water samples obtained from all six borings indicates that none of the constituents tested for were detected, with the exception of P,P'-DDT in a soil sample obtained from drill hole six. A concentration of 422 parts per billion (ppb) of P,P'-DDT was detected in the soil cample obtained at 8.5 feet below ground surface. The Total Threshold Limit Concentration (TTLC) set by the State Department of Health Services, under Title 22, is 1000 ppb for DDT. Anything detected above this standard is considered to be a hazardous waste and should be dealt with accordingly. Since the concentration detected was far below the standard set by the and does not pose a health threat to the environment. Results of the luboratory analyses are presented in Appendix A. Logs of all exploratory borings are presented in Appendix B.

Conclusions/Recommendations

Since laboratory analysis has determined that no contamination was found, or detected above state standards, in the soil and ground water samples obtained, we feel the site is clear of all possible contaminants that could a

- - ----

Ectar Associates

January 28, 1986

Project 156-20.1

have affected the site. However, we recommend that any underground tanks that are not intended for future use be removed and soil samples obtained and analyzed, as a small leak from the very bottom of the tank(s) would not have been bicked up in the soil sumples tested. Furthermore, all surface spills should be properly removed and disposed of prior to any site work.

Respectfully submitted,

BETA ASSOCIATES

A Card S. Khy Daniel L. Shafer

Project Geologist

Reviewed by:

eta Associates

White E. Mi Coclorge-In

Jack E. McCollough Registered Geologist #1559 Certified Engineering Geologist #905

cc: Mr. Jeffrey J. Vines-Del Monte Corporation

4



California Water Labs, Inc. P. O. BOX 4249 1430 CARPENTER LANE - SUITE G MODESTO, CA 95352 PHONE (200) 577-4050 PHONE (209) 527-4050

RUSH

.

.

Street 1	365 Vander Wa	У		Listed
	n Jose, CA	710 05110	Purchase Order	Job 156-20.1
Sample I.D.		_Zip95112	Referring Lab	
Collected by			Date Collected	11-21-85 - 11-25-85
CL P P P P P P P P P P-	<u>. I.D.</u> 16925 16926 16927 16928 16930 16931 16932 16933 16934 16935 16936 16937 .7000 .7001 .7004 .7133 .7134	<u>Sample I.D.</u> DH 1 at 2' DH 1 at 4' DH 1 at 6' DH 1 at 255' DH 2 at 2' DH 2 at 2' DH 2 at 2' DH 2 at 255' DH 3 at 2' DH 3 at 4' DH 3 at 6' DH 3 at 255' DH 4 at 255' DH 4 at 255' DH 5 at 2' DH 5 at 255' DH 6 at 85' DH 6 at 255'	Total FID	Hydrocarbon Scan L (ppm)
te_Received	11-21-85	- 11-25-85		
te Started	11-22-85			
te Completed	12-5-85			
		B		1 min de

California Water Labs, Inc. P. O. BOX 4249 1430 CARPENTER LANE - SUITE G MODESTO, CA 95352 PHONE (200) E37 4050 PHONE (209) 527-4050

F.EH

PurveyorBeta and AssociatesStreet1365 Vander WayCitySan Jose, CAZip95112Sample I.D.ListedCollected by:D.P.	Lab I.D. Lister Purchase Order Jci1 Referring Lab Date Collected 11-2 11-25-8
CL I.D. Sample I P-16939 DH 1 P-16941 DH 2 P-17006 DH 3 P-17008 DH 4 P-17010 DH 5 P-17132 DH 6	.D. Total FI

Date Received 1	L-21-85 -	11-25-85	
Date Started	-12=5=85		
Date Completed			· · · · · · · · · · · · · · · · · · ·

D

 By:	E	
 \sim		

California Water Labs, Inc. P. O. BOX 4249

P. O. BOX 4249 1430 CARPENTER LANE - SUITE G MODESTO, CA 95352 PHONE (209) 527-4050

KUSH

۰,

L.

w.

Street	1365 Vander W	ay		Purchase Order	Job 156-20.1
City	San Jose, CA	Zip 95112		Referring Lab	, . ,
Sample I.	D. Listed		·	Date Collected	11-21-85
and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	d by: D.P.			******	- <u></u>
					and Casena
	al I.D.	Sar	mple I.D.		and Grease SOIL (mg/kg)
	P-16925	DH	l at 2'		< 1
	P-16928	DH	1 at 255'		< 1
	P-16929	DH	2 at 2'		< 1
	P-16932	DH	2 at 255'		< 1
	P-16933	DH	3 at 2'		< 1
	P-16936	DH	3 at 255'		< 1
	P-16997	DH	4 at 2'	· · · ·	< 1
	P-17000	DH	4 at 205		< 1
	P-17001	DH	5 at 2'		< 1
	P-17004	DH	5 at 255	L	< 1
	P-17133	DH	6 at 85'		< 1
	P-17134	DH	1 6 at 25½	I	< 1
Deta Da	neived 11 (2-85			
Date Re Date St		22-85			
ويتبعدونه وتشروه ويتعال		3-85	-	By:	D-mat