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May 23, 2001

## **Phase II - Environmental Site Assessment**

***1300 POWELL STREET***  
***EMERYVILLE CALIFORNIA***

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**Prepared for:**

**LMKA, LLC**

**1981 Broadway Suite 415  
Walnut Creek, California 94596**

**R.T. HICKS CONSULTANTS, LTD.**

**4665 INDIAN SCHOOL NE, SUITE 106, ALBUQUERQUE, NM 87110**

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## 1.0 EXECUTIVE SUMMARY

R.T. Hicks Consultants, Ltd., (Hicks Consultants) performed a Phase II Environmental Site Assessment (ESA) of a two-story/light industrial building commonly known as 1300 Powell Street in Emeryville, California (the Property). The building is approximately 8,500 square feet; the lot is 46,000 square feet. The Assessor's Parcel numbers are 049-1329-003.

Hicks Consultants performed a Phase I ESA for LMKA, LLC, dated March 2001. In that document we found several Recognized Environmental Conditions (RECs). Due to the RECs associated with the property LMKA, LLC directed Hicks Consultants to conduct a Phase II ESA for 1300 Powell Street.

This document is for the sole use of LMKA LLC, 1981 Broadway Suite 415, Walnut Creek, California. The lender for LMKA, LLC may rely on this report as required. The environmental regulatory agency with jurisdiction for this property, Alameda County Health Care Services (ACHCS), may also rely upon this report and the Phase I ESA as required.

We followed ASTM Standard Guide 1903-97 for the investigation.

The data developed during the course of this investigation permit us to conclude:

1. Low levels of long-chain (heavy) hydrocarbons remain in soil beneath the property.
2. A 1.5-foot to 2-foot gravel layer exists approximately 2 feet below grade over portions of the western half of the Property. This gravel contains water with hydrocarbon constituents. Although we do not know if this water-bearing layer extends beyond the Property, we believe this gravel was used by a previous landowner as fill and is restricted to the Property.
3. The water at the site associated with the gravel layer contains hydrocarbon constituents and may require treatment prior to any water disposal (e.g. dewatering for construction). The water may qualify for a Special Discharge Permit from East Bay Municipal District (EBMUD). If EBMUD will not approve a permit, the water will have to be treated on site before discharge to the sanitary sewer system.

4. We understand that the development plan for the site calls for a limited access, open air parking structure below residential units. The parking structure will occupy the entire site and will be partially subgrade. The parking structure effectively caps the entire site and separates the residential units from the hydrocarbons in the soil. Future residents will have no direct contact between impacted soils or subsurface water. The base of the parking structure will be about 6 feet below grade and above the observed regional water table.
5. Previous investigations at the Property identified hydrocarbons in soil and groundwater. This discovery caused ACHCS to open a regulatory file for the Property in 1997. The results of subsequent investigations allowed ACHCS to close the file, recommending no further action if the use of the Property does not change. The conditions of the site closure require a Risk Assessment and possible clean-up of certain environmental matters if the Property use changes to residential.
6. The proposed parking structure eliminates any risk pathway and obviates the need for a Risk Assessment.
7. During construction, hydrocarbons in soil will be excavated and transported to a Class 2 Landfill in accordance with environmental regulations and any groundwater will be discharged to EBMUD as described above. Any "clean soil" may be removed to a construction landfill. The parking structure will serve to cap the entire site and any remaining hydrocarbons in soil. Construction activities will remove hydrocarbons from the property and prevent infiltration of precipitation and any leaching of constituents to the regional groundwater table (7-10 feet below grade). These proposed activities obviate the need for any additional clean-up at the Property.
8. Due to the proposed change from commercial to residential, Alameda County Health Services and the Regional Water Quality Control Board will review the recently collected data presented herein and determine if a Risk Assessment and/or any additional remedy is required to protect human health or the environment due to this proposed change.

## 2.0 INTRODUCTION

Under contract to LMKA, LLC, R.T. Hicks Consultants, Ltd., (Hicks Consultants) conducted a Phase II Environmental Site Assessment (ESA) for the property commonly known as 1300 Powell Street, Emeryville, California (the Property). We prepared this ESA following Standard Guidance Designation E 1903-97 of the American Society for Testing and Materials (ASTM). As outlined in that document, the primary objectives of a Phase II ESA are to evaluate the recognized environmental conditions identified in the Phase I ESA. According to Standard E 1527-00 the term "recognized environmental condition" means:

...the presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.

The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimus conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Conducting a Phase II can reduce but not eliminate uncertainty regarding the potential of recognized environmental conditions at or near the 1300 Powell Street property in Emeryville, California. We have based the opinions presented in this report on findings derived from the Phase I ESA and the intrusive sampling program conducted at the property by Hicks Consultants and previous workers.

We have included pertinent portions of the ASTM Standards and Guidance in Appendix A of this report. Hicks Consultants has endeavored to meet what it believes is the applicable standard of care, including appropriate inquiry. Hicks Consultants encountered no conditions that limited the performance of this assessment. We base the findings and opinions conveyed in this report on information obtained from a variety of sources enumerated herein. Hicks Consultants believes these sources are reliable. Nonetheless, Hicks Consultants cannot and does not guarantee the authenticity of the information.

## 3.0 PROPERTY DESCRIPTION

### 3.1 SITE DESCRIPTION

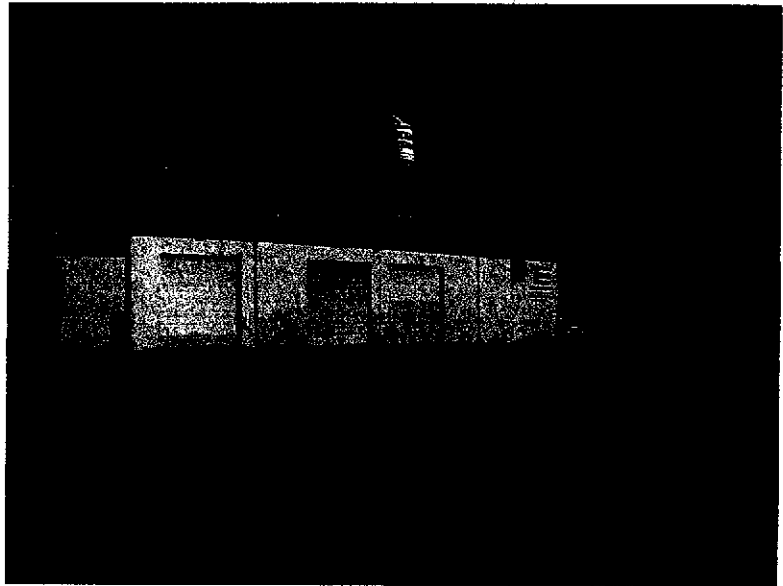
The Property consists of a two-story office/light industrial building. The Property's address is 1300 Powell Street, Emeryville, California (Latitude N37° 50.400' Longitude W122° 17.269').

The building consists of tilt-up concrete walls and an arched roof. The arched-roofed structure has a square footage of approximately 8500 square feet; the surrounding lot is approximately one acre. The building is divided into warehouse and office space. The building is surrounded on three sides by asphalt and concrete yard and parking lot. Figure 1 is a photograph of the asphalt parking lot and the exterior of the building looking south from the northern portion of the Property.

*Figure 1: Photograph of the building and parking lot looking south.*

A detailed description of the property including the legal description of the Property is included in the Phase I ESA.

The Property is located within the City of Emeryville, Alameda County, California.



### 3.2 PHYSICAL SETTING

The March 2001 Phase I ESA describes the physical setting of the property.

### 3.3 SITE HISTORY LAND USE AND ADJACENT PROPERTY LAND USE

The March 2001 Phase I presents historical land use information

### 3.4 PREVIOUS INVESTIGATIONS

The March 2001 Phase I presents information on previous investigations.

## 4.0 SCOPE OF PHASE II-ESA

### 4.1 OBJECTIVES OF PHASE II

As outlined in ASTM Standard Guidance E1903-97, the primary objectives of a Phase II ESA are to evaluate the recognized environmental conditions (RECs) identified in the Phase I ESA.

We identified four goals for the Phase II ESA.

- Identify the extent of soil that would require special disposal if excavated.
- Identify the depth to groundwater at the Property and provide an estimate of groundwater influx to an excavation.
- Sample groundwater and determine if water collected during construction de-watering would require special disposal.
- Determine if a Risk Assessment or additional clean-up is necessary to change the use of the Property from commercial to residential if a parking structure caps the Property and effectively separates residents from the subsurface.

### 4.2 DETERMINATION OF SAMPLING LOCATIONS

In order to best fulfill the four goals of the Phase II ESA we determined that a backhoe excavation program would impart more information than drilling boreholes, as previous investigations did. We concluded that trenches would allow us to examine the soil lithology and groundwater inflow at the property. After review of previous investigations, we decided on three excavation locations, two near the western property line and one just north of the building. Plate 1 is a map of the property that shows the excavation trenches.

#### **Results of Previous Sampling Programs**

In 1995, in anticipation of a real estate transaction, Mr. Becker, the owner of the Property, contracted with LUSH Geosciences to conduct a subsurface sampling program.

The 1995 sampling program found Petroleum Oil and Grease (POG) in a range from 320 mg/kg to 3,200 mg/kg and Total Petroleum Hydrocarbons as Diesel (TPH-D) in a range of 6.7 mg/kg to 110 mg/kg.



In 1997, Alameda County Environmental Health Services required a sampling program at the Property. The 1997 program, conducted by Cambria Environmental measured POG in a range from <50 mg/kg (not detected) to 420 mg/kg and TPH-D in a range from <1.0 mg/kg (not detected) to 210 mg/kg.

### **2001 Sampling Program**

We theorized that the lower levels of POG and TPH-D measured in 1997 might have resulted from natural degradation of the petroleum constituents. In order to test the theory, we excavated just north of the existing building where the 1995 sampling showed the highest levels of POG and the 1997 samples had showed much lower levels.

We sampled the soils in each of the trenches at approximately 1-foot, 3-feet, 5-feet, 7-feet, 9-feet, and 12-feet. The laboratory analyzed each sample for Gasoline Range Organics (TPH-G), Cadmium, Chromium, Lead, Nickel, Zinc, Total Extractable Petroleum Hydrocarbons (TEPH), and Diesel Range Organics (TPH-D).

Previous sampling showed relatively shallow (1-2 feet below ground surface) depth to ground water near the western property boundary and relatively deep depth (7 to 8 feet below ground surface) to groundwater near the center of the property. Therefore, we excavated two trenches on the western property line corresponding with locations that previously showed very low depth to groundwater. The trench near the center corresponds to previous measurements of relatively deep depth to groundwater.

We sampled groundwater in all of the trenches that showed groundwater infiltration. We directed the laboratory to analyze groundwater samples for the same constituents as the soil samples.

### **4.3 SAMPLING AND LABORATORY METHODOLOGY**

John Carver of City Tank sampled the soil and groundwater from the excavation of the three trenches at the selected sampling depths. Mr. Carver took the samples for analysis to California Certified North State Environmental Laboratory (ELAP 1753) under DOHS and Chain of Custody protocol. The laboratory analyzed the samples for TPH-G, BTEX, metals, TEPH, TPH-D, and TPH as motor oil using EPA methods 8015 (modified), 8021, AA spectroscopy, 5520 E & F, and 8015 (modified), and 8015 (modified), respectively.

# 5.0 EVALUATION OF SAMPLING RESULTS

## 5.1 ANALYTICAL RESULTS-SOIL

The results of our program are presented in Table 1, below. Appendix B contains the laboratory analytical results. Appendix C presents the results of previous investigations.

Table 1

Depth ft	Test Pit 1											
	Gasoline* mg/kg	Benzene mg/kg	Ethylbenzene mg/kg	Toluene mg/kg	Xylenes mg/kg	Chromium mg/kg	Lead mg/kg	Nickel mg/kg	Zinc mg/kg	TEPH mg/kg	Diesel mg/kg	Motor Oil mg/kg
1	ND	ND	ND	ND	ND	ND	ND	ND	ND	93	ND	160
3	ND	ND	ND	ND	ND	13	30	14	147	850	ND	92
5	ND	ND	ND	ND	ND	32	15	61	142	2100	850	380
7	ND	ND	ND	ND	ND	27	11	31	76	2300	2800	430
9	26	ND	0.13	0.048	0.68	17	6	28	70	930	1100	130
13	2	ND	ND	0.8	2	24	13	36	52	33	5	ND

Depth ft	Test Pit 2											
	Gasoline* mg/kg	Benzene mg/kg	Ethylbenzene mg/kg	Toluene mg/kg	Xylenes mg/kg	Chromium mg/kg	Lead mg/kg	Nickel mg/kg	Zinc mg/kg	TEPH mg/kg	Diesel mg/kg	Motor Oil mg/kg
0.5	2	ND	ND	0.8	2	12	12	15	140	63	ND	12
1	1.9	ND	ND	ND	ND	28	14	ND	55	27	ND	ND
3	1.1	ND	ND	ND	ND	23	37	22	130	93	ND	12
5	ND	ND	ND	ND	ND	36	8	22	58	37	ND	ND
7	ND	ND	ND	ND	ND	29	10	23	82	30	ND	ND
9	ND	ND	ND	ND	ND	18	7	27	89	17	ND	ND
12	ND	ND	ND	ND	ND	26	9	33	62	13	ND	ND

Depth ft	Test Pit 3											
	Gasoline* mg/kg	Benzene mg/kg	Ethylbenzene mg/kg	Toluene mg/kg	Xylenes mg/kg	Chromium mg/kg	Lead mg/kg	Nickel mg/kg	Zinc mg/kg	TEPH mg/kg	Diesel mg/kg	Motor Oil mg/kg
1	ND	ND	ND	ND	ND	23	19	24	72	197	ND	32
3	ND	ND	ND	ND	ND	30	130	24	160	30	ND	12
5	ND	ND	ND	ND	ND	22	37	23	110	150	ND	87
7	ND	ND	ND	ND	ND	19	9	23	120	83	ND	110
9	4.6	ND	0.02	ND	0.026	21	8	15	99	260	96	410
12	1.1	ND	ND	ND	ND	24	11	36	120	333	6	460

\* Results do not match gasoline.

## 5.2 RESULTS OF DEPTH TO GROUNDWATER

Trenches 1 and 3 displayed a 2-foot thick gravel layer approximately 1.5 to 2 feet below the ground surface. The gravel averaged approximately 2 inches in diameter. The layer was completely saturated. The water from this layer filled in the trenches almost immediately. Trench #2 remained dry to a depth of 8 feet 8 inches. The gravel layer found in Trenches 1 and 3 was absent from Trench 2.

### 5.3 ANALYTICAL RESULTS-GROUNDWATER

Table 2 below presents the results of the 2001 groundwater samples. Appendix B contains the laboratory analytical results. Appendix C presents the results of previous investigations.

**Table 2**

Test Pit 1							
Gasoline ug/L	Chromium mg/L	Lead mg/L	Nickel mg/L	Zinc mg/L	TEPH mg/L	Diesel mg/L	Motor Oil mg/L
1800	0.2	1.6	0.1	2	28	410	81
Test Pit 2							
Gasoline ug/L	Chromium mg/L	Lead mg/L	Nickel mg/L	Zinc mg/L	TEPH mg/L	Diesel mg/L	Motor Oil mg/L
57	ND	ND	ND	ND	ND	0.23	0.7
Test Pit 3							
Gasoline ug/L	Chromium mg/L	Lead mg/L	Nickel mg/L	Zinc mg/L	TEPH mg/L	Diesel mg/L	Motor Oil mg/L
59	0.36	1.26	0.43	3.51	ND	2.5	70

### 5.4 EVALUATION OF RESULTS

#### Hydrocarbons

The results of the laboratory analyses demonstrate that hydrocarbon constituents still remain in the soil and in the groundwater. After examination of the chromatograms of the water samples, we determined that the hydrocarbons reported as "gasoline" are not gasoline, but degradation products associated with diesel. As reported by previous investigations, there are no short-chained hydrocarbons (i.e. benzene or other gasoline by-products) present in the subsurface of the Property. The concentration of hydrocarbons in soil is similar to that previously reported.

#### Metals

Laboratory analyses demonstrate that no soil samples exceed the 1000 mg/kg Risk-Based Screening Level for lead. Lead was not detected in the groundwater sample from Pit 2. In Pits 1 and 3, where the shallow gravel layer contributed water to the excavation, lead is above drinking water standards. We do not believe previous tenants or property owners extensively used leaded fuel. The source of the lead in soil and water may be due to non-petroleum sources.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The data developed during the course of this investigation permit us to conclude:

1. Low levels of hydrocarbons remain in soil beneath the property and any hydrocarbon impacted soil excavated from the Property may require disposal at a Class II landfill. We recommend that the soil be tested for the leachability of lead in order to help identify the most cost-effective landfill.
2. The approximate cost of disposing of the soil excavated over the entire property to a depth of 6 feet is approximately \$650,000. This price includes all labor associated with the excavation and all trucking and disposal costs. If a significant portion of the Property is not impacted with hydrocarbons (e.g. under the building), then the disposal costs will decrease proportionately.
3. Portions of the property overlay a two-foot thick gravel layer that is water saturated. This water-bearing gravel layer contains hydrocarbon constituents. It is probable that this layer was created as a grading fill layer and is restricted to the Property. Water from this gravel zone readily flows into excavations.
4. We recommend excavation of the soil above this gravel layer in order to determine the total extent of the gravel. If the gravel layer is limited to the Property, then we believe it is not connected to any other water bearing geologic formation. If this is the case, the layer can be de-watered prior to excavation of the gravel.
5. The water at the site associated with the gravel layer contains hydrocarbon constituents and may require treatment. We recommend additional water analyses to determine if the water qualifies for a Special Discharge Permit from East Bay Municipal District (EBMUD). If EBMUD will not approve a permit, the water will have to be treated on site before discharge to the sanitary sewer system. Portable water treatment units may be rented for this purpose.

6. We conclude that the proposed parking structure eliminates direct contact between subsurface constituents and future residents. Because no risk pathways exist at the site, a Risk Assessment is not warranted.
7. We conclude that the proposed construction activities will remove hydrocarbons and other constituents from the site and improve the environmental condition. We conclude that such an improvement of the environmental condition of the Property will permit regulators to continue "no further action/closed" status of the regulatory file.

***APPENDIX A***

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## Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process<sup>1</sup>

This standard is issued under the fixed designation E 1903; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This guide<sup>2</sup> covers a framework for employing good commercial and customary practices in conducting a Phase II environmental site assessment (ESA) of a parcel of commercial property with respect to the potential presence of a range of contaminants which are within the scope of CERCLA as well as petroleum products.

1.1.1 This guide is intended to provide practical procedural guidance for the continuation of an assessment conducted in accordance with the most recent edition of Practice E 1527 or E 1528, or both. Practice E 1527 is the practice for conducting Phase I ESAs for a parcel of commercial property and Practice E 1528 is the transaction screen practice. Both practices define a process that is intended to constitute "all appropriate inquiry into the previous ownership and uses of a property" to determine whether hazardous substances or petroleum products have been disposed or released there in order to satisfy one element of the innocent purchaser defense to CERCLA liability.

1.1.2 Because this guide for conducting Phase II ESAs describes a process for further evaluating a parcel of commercial property with recognized environmental conditions, as defined in Practices E 1527 and E 1528, users of this guide should understand the requirements and limitations of those practices. It is strongly recommended that the user refer to and apply the guide in concert with Practices E 1527 and E 1528.

1.1.3 This guide has multiple purposes. It is intended to provide assistance to users in satisfying the appropriate inquiry element of CERCLA's innocent purchaser defense, as defined in 42 U.S.C. § 9601(35)(B), where a previous assessment satisfying that element identified recognized environmental conditions. This guide also is intended to assist a user in gathering reliable information about a property's environmen-

tal conditions to guide the user's business decisions. However, this guide does not purport to include the level of specificity required of technical standards that govern full characterization of a site's environmental conditions.

1.2 *Objectives*—The primary objectives of conducting a Phase II ESA are to evaluate the recognized environmental conditions identified in the Phase I ESA or transaction screen process for the purpose of providing sufficient information regarding the nature and extent of contamination to assist in making informed business decisions about the property; and where applicable, providing the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA.

1.2.1 To achieve these objectives, it may be appropriate to perform more than a single iteration of assessment. The guide fosters an iterative approach to Phase II assessments and allows the user to terminate the Phase II ESA at the point where sufficient data have been generated to meet the user's objectives.

1.2.2 At the completion of a Phase II ESA, the environmental professional should be able to conclude, at a minimum, that either (a) the ESA has provided sufficient information to render a professional opinion that there is no reasonable basis to suspect the presence of hazardous substances or petroleum products at the property associated with the recognized environmental conditions under assessment, or (b) the ESA has confirmed the presence of hazardous substances or petroleum products at the property under conditions that indicate disposal or release. If the information developed in the ESA is insufficient for the environmental professional to reach either of these conclusions, the environmental professional may recommend additional iterations of assessment if warranted to meet the objectives of the user. If the environmental professional reasonably suspects that unconfirmed hazardous substance or petroleum releases remain but concludes that further reasonable assessment is not expected to provide additional information of significant value, he may recommend that further assessment is not warranted. In such circumstances, the recommendation for no further assessment should be accompanied by an explanation why a reasonable suspicion of releases remains and why further reasonable assessment is not warranted. Depending upon the work scope, the environmental professional may also be able to provide guidance on the nature and extent of contamination in order to assist the user in making business decisions regarding the property.

<sup>1</sup> This guide is under the jurisdiction of ASTM Committee E-50 on Environmental Assessment and is the direct responsibility of Subcommittee E50.02 on Commercial Real Estate Transactions.

Current edition approved Dec. 10, 1997. Published February 1998.

<sup>2</sup> As used herein, a "Standard" is a document that has been developed and established within the consensus principles of the Society and that meets the approval requirements of ASTM procedures and regulations. A "Guide" is a compendium of information or a series of options that does not recommend a specific course of action. A guide increases the awareness of information and approaches in a given subject area. A "Practice," in contrast, is a definitive set of instructions for performing one or more specific operations that does not produce a result. See Form and Style for ASTM Standards, 10th ed., 1996.

1.2.3 This guide is intended to provide guidance for assessing recognized environmental conditions and developing technically sound data. It is not intended to satisfy the level of inquiry that may be necessary to support remedial solutions for a site. For further discussion of the use of this guide, refer to Section 4 on Significance and Use.

1.3 *Needs of the User*—Establishing the innocent purchaser defense may not be a realistic objective in some instances. Accordingly, the extent of assessment is based on the business objectives of the user as well as the degree of uncertainty acceptable to the user. In either case, the primary purpose of a Phase II ESA conducted in accordance with this guide is to assess and evaluate the recognized environmental conditions identified in the Phase I ESA or Transaction Screen Process.

1.3.1 The mere confirmation of contamination or the preliminary indication of the extent and magnitude of contamination may be sufficient for the purposes of many users. If a user desires a more complete characterization of the environmental condition of the property, further assessment may be undertaken. However, this guide should not be construed to require multiple iterations of assessments in all cases, either to establish the innocent purchaser defense or to meet other objectives. Many Phase II ESAs may in fact be restricted to only a single round of assessment, whatever the extent of contamination, if any, that might be revealed.

1.4 *Limitations*—The use of this guide is related to the scope as set forth in Section 1. For information purposes, Section 12 of this guide contains a non-exhaustive list of certain environmental conditions that are beyond the scope of this guide but that may warrant consideration by parties to a commercial property transaction. This guide provides an approach that may be employed to assess the environmental conditions listed in Section 12. Reference also should be made to 4.1.

1.5 *Organization of This Guide*—This guide has twelve sections and one appendix. Section 1 is the Scope section. Section 2 is Referenced Documents. Section 3, Terminology, contains definitions of terms and acronyms used in this guide. Section 4 is Significance and Use of this guide. Section 5 is Contracting Considerations. Sections 6-11 constitute the main body of the Phase II Environmental Site Assessment guide and include objectives (see Section 6), developing the scope of work (see Section 7), assessment activities (see Section 8), evaluation of data (see Section 9), interpretation of results (see Section 10) and recommended report preparation (see Section 11). Section 12 provides additional information regarding non-scope considerations. Appendix XI provides a sample table of contents and report format for a written Phase II Environmental Site Assessment Report.

## 2. Referenced Documents

2.1 The references in this Section are for informational purposes. Although Phase II ESAs should utilize government- and industry-accepted practices and methods, this guide does not recommend the use of specific practices in the implementation of a Phase II ESA.

### 2.2 ASTM Standards:

D 5730 Guide to Site Characteristics for Environmental Purposes With Emphasis on Soil, Rock, The Vadose Zone

and Ground Water<sup>3,4</sup>

D 653 Terminology Relating to Soil, Rock and Contained Fluids<sup>3</sup>

D 4750 Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well. (Observation Well)<sup>3</sup>

E 1527 Practice for Environmental Site Assessments: Phase I<sup>5</sup>

E 1528 Practice for Environmental Site Assessments: Transaction Screen Process<sup>3</sup>

## 3. Terminology

### 3.1 Definitions:

3.1.1 *aquifer*—as defined in Terminology D 653, a geologic formation that is capable of providing a significant quantity of water.

3.1.2 *ARARs*—an acronym for “applicable or relevant and appropriate requirements,” a term used in CERCLA and interpreted by EPA regulations. Applicable requirements means “those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site”, 40 C.F.R. § 300.5. Relevant and appropriate requirements means “those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not ‘applicable’ to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site” 40 C.F.R. § 300.5.

3.1.3 *business decision*—a decision based on various business risk management considerations relating to a specific property, such as a transfer of title or change in financing. Such considerations may also include the potential financial exposure associated with environmental risks, the value of the property compared with the cost of environmental assessment, and the participation and motivations of specific parties to the transaction (that is, owner, seller, buyer, lender, etc.).

3.1.4 *CERCLA*—the acronym for the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, *et seq.*, the primary federal statute that governs the imposition of liability for environmental cleanups.

3.1.5 *C.F.R.*—Code of Federal Regulations.

3.1.6 *chain of custody*—a written or printed form which is used to document sample possession, condition and responsibility. This custody can include the time from sample container acquisition through transportation, sample collection and laboratory analysis.

3.1.7 *chemical phases*—the physical state of the chemical, (that is; solid, liquid, vapor/gaseous). A chemical’s physical

<sup>3</sup> Annual Book of ASTM Standards, Vol 04.08.

<sup>4</sup> Guide D 5730 covers the selection of the various ASTM Standards that are available for the investigation of soil, rock, the vadose zone, ground water, and other media where investigations have an environmental purpose.

<sup>5</sup> Annual Book of ASTM Standards, Vol 11.04.



The environmental professional should require the laboratory report any potential or actual problems experienced, or routine events which may have occurred during the testing, so that such problems can be considered in evaluating the data. The environmental professional should subsequently identify such problems in any requested reports or documentation provided to the user.

**4.2.2 Level of Assessment**—Phase II ESAs do not generally require an exhaustive assessment of environmental conditions on property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. If hazardous substance or petroleum releases are confirmed on a parcel of property, the extent of further assessment is related to the degree of uncertainty that is acceptable to the user with respect to the real estate transaction.

**4.2.3 Comparison With Subsequent Inquiry**—For purposes of the innocent purchaser defense, Phase II ESAs should be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made.

**4.2.4 Data Usability**—Measurements and sampling data only represent the site conditions at the time of data collection. Therefore, the usability of data collected as part of a Phase II ESA may have a finite lifetime depending on the application and use being made of the data. An environmental professional should evaluate whether previously generated data are appropriate for any subsequent use beyond the original purpose for which it was collected.

## 5. Contracting Considerations

**5.1 Contracts**—The content and form of the contractual relationship between an environmental professional and user are outside the scope of this guide. The outcome of a Phase II ESA may be adversely affected if the environmental professional and the user do not adequately define their relationship. This guide identifies some of the issues that should be resolved prior to initiation of a Phase II ESA. This guide does not purport to identify all issues that may arise in the course of implementing a Phase II ESA. Nor does it specify how these issues should be resolved. Where the user utilizes the services of an in-house environmental professional, contracting considerations may or may not arise.

**5.1.1 Reporting Obligations**—A requirement to report observations from a Phase II ESA to a governmental entity or third party may be imposed by various authorities, including statutes, regulations, common law, and professional standards. In most cases, statutory, regulatory and common law requirements impose reporting obligations only on the owner, operator, or person in charge or control of the facility or property being assessed. In some circumstances, however, reporting obligations may be legally or voluntarily imposed upon a broader group, including the environmental professional. To avoid disagreement, misunderstanding, or unexpected reporting, the contract between the user and the environmental professional should clearly define the obligations of and protocol for both the user and environmental professional to report to governmental entities or third parties.

**5.1.2 Production of Written Reports and Documentation**—

The production of written documentation reflecting the findings of a Phase II ESA raises issues of concern to the user and the environmental professional. The user may be concerned, for example, about the potential for disclosure of sensitive information to the government or third parties and the conflicting interest of ensuring documentation to support an innocent landowner claim. The environmental professional may be concerned that the assessment is well documented to minimize misinterpretation, document uncertainty, and clearly present findings to the user. As a result, the agreement between the user and environmental professional should address the type and scope of written documentation that will be developed to reflect the findings of the Phase II ESA. In this regard, consideration should be given to issues such as the attorney-client, work product and self-evaluation privileges, whether recommendations should be provided separately from the Phase II report, whether the report should be written or oral, and the extent to which the user wants to review a report prior to its becoming "final". An example format is attached in Appendix X1.

**5.1.3 Confidentiality**—Agreements for confidential treatment of the Phase II ESA, if any, should be included in the contract. This agreement should include any subcontractors used in performance of the assessment.

**5.1.4 Work Performed by Others**—During the implementation of the Phase II assessment, the environmental professional may employ others (for example, drillers, laboratories) to carry out portions of the work. The contract between the environmental professional and the user may specify whether the environmental professional or the user is to be responsible for selecting subcontractors. The contract also may specify that only qualified subcontractors with current and appropriate certifications and licenses may be employed. The contract also may specify the qualifications required of subcontractors.

**5.1.5 Limitation on Scope of Work, Data, Information, or Time**—Any limitations on the information, data collected or the work to be performed during the Phase II ESA, including time allowed for completing the work, and their effect on the results of the assessment, should be clearly understood by the environmental professional and user. Such limitations may be made part of the contract.

**5.1.6 Third Party Reliance On Reports and Other Documentation**—Responsibility for the use of Phase II ESAs by third parties may be governed by the contractual relationship between the user and environmental professional.

**5.1.7 Generation of Waste**—Wastes may be generated during the assessment implemented as part of the Phase II ESA (for example, drill cuttings and purged ground water). The contract between the environmental professional and the user should clearly address the manner in which such wastes are to be handled and disposed. Techniques that minimize the generation of waste should be utilized to the extent feasible, consistent with the information and data quality objectives of the planned assessment and applicable regulatory requirements.

**5.1.8 Damages Caused by Explorations**—Exploration activities risk damaging structures such as utility lines and underground storage tanks when such are present. Intrusive

***APPENDIX B***

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CERTIFICATE OF ANALYSIS

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Includes entries for Diesel, Motor Oil, Benzene, Ethylbenzene, Toluene, Xylenes, Cadmium, Chromium, Lead, Nickel, Zinc, TEPH, Diesel, Motor Oil.

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Includes entries for Gasoline, Benzene, Ethylbenzene, Toluene, Xylenes, Cadmium, Chromium.

\*Does not match gasoline



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains two main sections for samples 01-0556-02 and 01-0556-03.

in rem

\*Does not match gasoline



CERTIFICATE OF ANALYSIS

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Includes data for Gasoline, Benzene, Ethylbenzene, Toluene, Xylenes, Cadmium, Chromium, Lead, Nickel, Zinc, TEPH, Diesel, and Motor Oil.

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Includes data for Gasoline, Benzene, Ethylbenzene, Toluene, Xylenes, Cadmium, and Chromium.

\*Does not match gasoline



# North State Environmental Laboratory

CA ELAP#1753

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## C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
 Client: City Tank  
 Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
 Gasoline and BTEX by Methods 8015M and 8020  
 Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
 Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-05 Client ID: 6016-TP1-9.0				04/18/2001	SOIL
1	7420	6	mg/Kg		
Nickel	7520	28	mg/Kg		
Zinc	7950	70	mg/Kg		
TEPH	5520F	930	mg/Kg		04/26/2001
Diesel	8015M	1100	mg/Kg		04/25/2001
Motor Oil	8015M	150	mg/Kg		
Sample: 01-0556-06 Client ID: 6016-TP1-13.0				04/18/2001	SOIL
Gasoline	8015M	*2.0	mg/Kg		04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	0.8	mg/Kg		
Xylenes	8020	2	mg/Kg		
Cadmium	7130	ND			
Chromium	7190	24	mg/Kg		
Lead	7420	13	mg/Kg		
Nickel	7520	36	mg/Kg		
Zinc	7950	52	mg/Kg		
TEPH	5520F	33	mg/Kg		04/26/2001
Diesel	8015M	5	mg/Kg		04/26/2001
Motor Oil	8015M	ND			

\*Does not match gasoline



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains two sample entries: 01-0556-07 and 01-0556-08, listing various analytes like Gasoline, Benzene, Ethylbenzene, Toluene, Xylenes, Cadmium, Chromium, Lead, Nickel, Zinc, TEPH, Diesel, and Motor Oil.

\*Does not match gasoline



CERTIFICATE OF ANALYSIS

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains two sections of data for samples 01-0556-08 and 01-0556-09.

\*Does not match gasoline





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## C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
 Client: City Tank  
 Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
 Gasoline and BTEX by Methods 8015M and 8020  
 Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
 Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-10 Client ID: 6016-TP2-5.0				04/18/2001	SOIL
Gasoline	8015M	ND			04/25/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Cadmium	7130	ND			04/26/2001
Chromium	7190	36	mg/Kg		
Lead	7420	8	mg/Kg		
Nickel	7520	22	mg/Kg		
Zinc	7950	58	mg/Kg		
TEPH	5520F	37	mg/Kg		04/26/2001
Diesel	8015M	ND			04/26/2001
Motor Oil	8015M	ND			

Sample: 01-0556-11 Client ID: 6016-TP2-7.0				04/18/2001	SOIL
Gasoline	8015M	ND			04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Cadmium	7130	ND			04/26/2001
Chromium	7190	29	mg/Kg		

\*Does not match gasoline



CERTIFICATE OF ANALYSIS

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains two sample entries (01-0556-11 and 01-0556-12) listing various analytes like Nickel, Zinc, TEPH, Diesel, Motor Oil, Gasoline, Benzene, Ethylbenzene, Toluene, Xylenes, Cadmium, Chromium, Lead, and their respective results and dates.

\*Does not match gasoline



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## C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
Client: City Tank  
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
Gasoline and BTEX by Methods 8015M and 8020  
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-13 Client ID: 6016-TP2-12.0				04/18/2001	SOIL
Gasoline	8015M	ND			04/27/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			04/26/2001
Cadmium	7130	ND			
Chromium	7190	26	mg/Kg		
Lead	7420	9	mg/Kg		
Nickel	7520	33	mg/Kg		
Zinc	7950	62	mg/Kg		
TEPH	5520F	13	mg/Kg		04/26/2001
Diesel	8015M	ND			04/26/2001
Motor Oil	8015M	ND			
Sample: 01-0556-14 Client ID: 6016-TP3-1.0				04/18/2001	SOIL
Gasoline	8015M	ND			04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			04/26/2001
Cadmium	7130	ND			
Chromium	7190	25	mg/Kg		

\*Does not match gasoline



CERTIFICATE OF ANALYSIS

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains two sample entries: 01-0556-14 and 01-0556-15.

\*Does not match gasoline



# North State Environmental Laboratory

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## C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
 Client: City Tank  
 Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
 Gasoline and BTEX by Methods 8015M and 8020  
 Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
 Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-16 Client ID: 6016-TP3-5.0				04/18/2001	SOIL
Gasoline	8015M	ND			04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Cadmium	7130	ND			04/26/2001
Chromium	7190	22	mg/Kg		
Lead	7420	37	mg/Kg		
Nickel	7520	23	mg/Kg		
Zinc	7950	110	mg/Kg		
TEPH	5520F	150	mg/Kg		04/26/2001
Diesel	8015M	ND			04/27/2001
Motor Oil	8015M	87	mg/Kg		
Sample: 01-0556-17 Client ID: 6016-TP3-7.0				04/18/2001	SOIL
Gasoline	8015M	ND			04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			
Cadmium	7130	ND			04/26/2001
Chromium	7190	19	mg/Kg		

\*Does not match gasoline



# North State Environmental Laboratory

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## C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
Client: City Tank  
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
Gasoline and BTEX by Methods 8015M and 8020  
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-17 Client ID: 6016-TP3-7.0				04/18/2001	SOIL
Lead	7420	9	mg/Kg		
Nickel	7520	23	mg/Kg		
Zinc	7950	120	mg/Kg		
TEPH	5520F	83	mg/Kg		04/26/2001
Diesel	8015M	ND			04/26/2001
Motor Oil	8015M	110	mg/Kg		
Sample: 01-0556-18 Client ID: 6016-TP3-9.0				04/18/2001	SOIL
Gasoline	8015M	*4.6	mg/Kg		04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	0.010	mg/Kg		
Toluene	8020	ND			
Xylenes	8020	0.016	mg/Kg		
Cadmium	7130	ND			04/26/2001
Chromium	7190	21	mg/Kg		
Lead	7420	8	mg/Kg		
Nickel	7520	15	mg/Kg		
Zinc	7950	99	mg/Kg		
TEPH	5520F	260	mg/Kg		04/26/2001
Diesel	8015M	96	mg/Kg		04/25/2001
Motor Oil	8015M	410	mg/Kg		

\*Does not match gasoline



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains two sample entries: 01-0556-19 and 01-0556-20, listing various hydrocarbons and metals.

\*Does not match gasoline



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
 Client: City Tank  
 Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
 Gasoline and BTEX by Methods 8015M and 8020  
 Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
 Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-20 Client ID: 6016-TP2-SP				04/18/2001	SOIL
Iron	7420	9	mg/Kg		
Nickel	7520	14	mg/Kg		
Zinc	7950	71	mg/Kg		
TEPH	5520F	290	mg/Kg		04/26/2001
Diesel	8015M	5	mg/Kg		04/26/2001
Motor Oil	8015M	51	mg/Kg		
Sample: 01-0556-21 Client ID: 6016-TP1-GW				04/18/2001	WATER
Gasoline	8015M	1800	ug/L		04/27/2001
Benzene	8020	ND<2.5	ug/L		
Ethylbenzene	8020	ND<2.5	ug/L		
Toluene	8020	ND<2.5	ug/L		
Xylenes	8020	ND<2.5	ug/L		
Cadmium	7130	ND			04/24/2001
Chromium	7190	0.2	mg/L		
Lead	7420	1.6	mg/L		
Nickel	7520	0.1	mg/L		
Zinc	7950	2	mg/L		
TEPH	5520F	28	mg/L		04/26/2001
Diesel	8015M	410	mg/L		04/26/2001
Motor Oil	8015M	81	mg/L		

\*Does not match gasoline





# North State Environmental Laboratory

CA ELAP# 1753

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## C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0556  
 Client: City Tank  
 Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M  
 Gasoline and BTEX by Methods 8015M and 8020  
 Total Extractable Petroleum Hydrocarbons by SM 5520 E & F  
 Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0556-22 Client ID: 6016-TP2-GW				04/18/2001	WATER
Gasoline	8015M	57	ug/L		04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			04/24/2001
Cadmium	7130	ND			
Chromium	7190	ND			
Lead	7420	ND			
Nickel	7520	ND			
Zinc	7950	ND			04/26/2001
TEPH	5520F	ND			04/24/2001
Diesel	8015M	0.23	mg/L		
Motor Oil	8015M	0.7	mg/L		
Sample: 01-0556-23 Client ID: 6016-TP3-GW				04/18/2001	WATER
Gasoline	8015M	59	ug/L		04/26/2001
Benzene	8020	ND			
Ethylbenzene	8020	ND			
Toluene	8020	ND			
Xylenes	8020	ND			04/24/2001
Cadmium	7130	ND			
Chromium	7190	0.36	mg/L		

\*Does not match gasoline



CERTIFICATE OF ANALYSIS

Lab Number: 01-0556
Client: City Tank
Project: 1300 POWELL ST./EMERYVILL

Date Reported: 04/27/2001

Diesel, Motor Oil Hydrocarbons by Method 8015M
Gasoline and BTEX by Methods 8015M and 8020
Total Extractable Petroleum Hydrocarbons by SM 5520 E & F
Total Cd, Cr, Ni, Pb and Zn by AA Spectroscopy

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Rows include sample ID 01-0556-23, Client ID 6016-TP3-GW, and various analytes like Nickel, Zinc, TEPH, Diesel, and Motor Oil.

\*Does not match gasoline



# North State Environmental Analytical Laboratory

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080

Phone: (650) 266-4563 Fax: (650) 266-4560

010556

Chain of Custody / Request for Analysis

Lab Job No.: \_\_\_\_\_ Page 1 of 2

Client: <b>City TANK</b>	Report to: <b>John Manning</b>	Phone:	Turnaround Time <b>5 day =</b>
Mailing Address: <del>1300 Powell St</del>	Billing to: <b>Michelle Hunter</b> <b>City TANK</b>	Fax:	
		PO# / Billing Reference: <b>6016</b>	Date: <b>4/18/01</b>
			Sampler: <b>Carver</b>

Project / Site Address: <b>1300 Powell St Emeryville</b>					Analysis Requested					Comments / Hazards
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	AH-D	TPH-GX DIEH TEPH	TPH-in O Centrifuge 1.5% 1.5% 1.5% 1.5% 1.5%			
1 6016-TP1-1.0	Soil	1 BT	Cool	4/18/01 1105	X	X	X	X	X	
2 6016-TP1-3.0				1110	X	X	X	X	X	
3 6016-TP1-5.0				1115	X	X	X	X	X	
4 6016-TP1-7.0				1120	X	X	X	X	X	
5 6016-TP1-9.0				1125	X	X	X	X	X	
6 6016-TP1-13.0				1130	X	X	X	X	X	
7 6016-TP2-0.5				1230	X	X	X	X	X	
8 6016-TP2-1.0				1235	X	X	X	X	X	
9 6016-TP2-3.0				1240	X	X	X	X	X	
10 6016-TP2-5.0				1245	X	X	X	X	X	
11 6016-TP2-7.0				1250	X	X	X	X	X	
12 6016-TP2-9.0				1255	X	X	X	X	X	
13 6016-TP2-12.0				1300	X	X	X	X	X	

Relinquished by: <i>[Signature]</i>	Date: <b>4/19/01</b> Time: <b>11:00</b>	Received by: <i>[Signature]</i>	Lab Comments
Relinquished by: <i>[Signature]</i>	Date: <b>4/19/01</b> Time: <b>1:00</b>	Received by: <i>[Signature]</i> <b>USE LABS</b>	
Relinquished by:	Date: _____ Time: _____	Received by:	

Apr 27 01 04:37p



**North State Environmental Analytical Laboratory**  
 90 South Spruce Avenue, Suite W, South San Francisco, CA 94080  
 Phone: (650) 266-4563 Fax: (650) 266-4560

Chain of Custody / Request for Analysis  
 Lab Job No.: \_\_\_\_\_ Page 2 of \_\_\_\_\_

Apr 27 01 04:37P

Client: <u>City Tank</u>	Report to: <u>John Manning</u>	Phone: <u>(415) 243-8865</u>	Turnaround Time <u>5 day</u>
Mailing Address:	Billing to: <u>Michelle Hunter</u>	Fax:	Date: <u>4/18/01</u>
	<u>City TANK</u>	PO# / Billing Reference: <u>6016</u>	Sampler: <u>John Corvax</u>

Project / Site Address: <u>1300 Powell St. Emeryville</u>					Analysis Requested					Comments / Hazards	
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	TPH-D	TPH-G	BTEX	LEAD	TPH-10 (100ppb)		TPH-20 (200ppb)
6016-TP3-1.0	Soil	1BT	Cool	4/18/01 1330	X	X	X	X	X	X	
6016-TP3-3.0	)	)	)	1335	X	X	X	X	X	X	
6016-TP3-5.0				1340	X	X	X	X	X	X	X
6016-TP3-7.0				1345	X	X	X	X	X	X	X
6016-TP3-9.0				1350	X	X	X	X	X	X	X
6016-TP3-12.0				1355	X	X	X	X	X	X	X
6016-TP2-SP				Soil	4BT	Cool	4/18/01 1415	X	X	X	X
6016-TP1-GW	Water	2LIT 4VOA	Cool	4/18/01 1430	X	X	X	X	X		
6016-TP2-GW	)	2LIT 2VOA	)	1500	X	X	X	X	X		
6016-TP3-GW				1530	X	X	X	X	X	X	

Relinquished by: <u>[Signature]</u>	Date: <u>4/19/01</u> Time: <u>11:00</u>	Received by: <u>[Signature]</u>	Lab Comments
Relinquished by: <u>[Signature]</u>	Date: <u>4/19/01</u> Time: <u>1:00</u>	Received by: <u>[Signature]</u>	
Relinquished by: _____	Date: _____ Time: _____	Received by: <u>[Signature]</u>	