Chevron U.S.A. Inc.
2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

Marketing Operations

D. Moller
Manager, Operations
S. L. Patterson
Area Manager, Operations
C. G. Trimbach
Manager, Engineering

STID 401

January 13, 1989

Mr. Thomas Peacock
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 20
Oakland, California 94621

Re: Used Oil Tank Removal From
Chevron Station #9-0338
5500 Telegraph Avenue
Oakland, California

Dear Mr. Peacock:

On October 5, 1988, one 1,000-gallon used oil tank was removed from the subject site. Attached is the Blainetec soil sampling report.

Total petroleum hydrocarbons, and oil and grease in all soil samples were under 100 ppm. The tank hole was backfilled and no further action is proposed.

If you have any questions, please call Mr. Darrell Hovander at (415) 842-9518.

Very truly yours,

D. MOLLER

By D M Hovander
Darrell Hovander
Engineer

DNH:vjs:Q256
Attachment

BLAINE
TECH SERVICES INC.

1370 TULLY RD., SUITE 505
SAN JOSE, CA 95122
(408) 995-5535

October 11, 1988

Chevron USA, Inc.
2410 Camino Ramon
San Ramon, CA 94583

Attn: Darrell Hovander

SITE:
CHEVRON SERVICE STATION NO. 0338
5500 TELEGRAPH AVENUE
OAKLAND, CALIFORNIA

PROJECT:
SINGLE TANK REMOVAL AND
DISCONTINUATION OF ON
SITE STORAGE TANK

SAMPLED ON:
OCTOBER 5, 1988

TANK REMOVAL SAMPLING REPORT 88279-M-1

This report describes the initial environmental sampling and documentation performed by our firm on this project. In addition to the Sampling Report text itself, supporting documents are provided as attachments. These include the chain of custody and the certified analytical laboratory report. All these documents should be kept together and preserved as a file of interrelated records which, together, comprise the documentation of the work performed at the site. If additional work is required, then a cumulative report format will be followed so that all information on the various phases of work at the site can be easily reviewed.

SCOPE OF REQUESTED SERVICES

In accordance with your request, field personnel would be dispatched to the site to observe the tank removal, collect soil samples, arrange for the proper analyses of the samples and maintain adequate documentation resulting in the issuance of a formal Sampling Report. The collection of environmental samples was to be performed in accordance with the requirements of the State

specific directions of the Local Implementing Agency (LIA) inspector present at the site at the time of removal.

EXECUTION OF THE TANK REMOVAL SAMPLING

Personnel from our office were present at the subject site for the tank removal and requested sampling on Wednesday, October 5, 1988.

TANK I.D.	TANK SIZE IN GALLONS	TANK CONTENT	MATERIAL OF CONSTRUCTION	INSPECTION FOUND
WO	1,000	WASTE OIL	STEEL	ONE HOLE

The subject site is located within the overall jurisdiction of the Regional Water Quality Control Board -- San Francisco Bay Region. Initial inspection and evaluation of the site is customarily conducted by the local implementing agency (LIA), which in this case was the Alameda County Health Agency. The local implementing agency was represented by Mr. Thomas F. Peacock, who was present to observe the tank removal and sampling.

One interface sample was obtained from below the waste oil tank at the end opposite to the fill pipe. The sample was taken from a depth of eight feet. No sample was collected from beneath the fill pipe end of the tank because that portion of the tank had been located beneath an existing building structure. In addition, one soil sample was taken of the stockpile material that was generated during the tank removal.

In accordance with the local regulations and the field judgement of the LIA representative, a detailed inspection was conducted in which the tank was visually inspected and likely failure points were probed with small pointed metal examination tools. The inspection found one small hole at fill pipe end.

The size and location of all such holes or failure points will be found on the UNDERGROUND STORAGE TANK REMOVAL AND SAMPLING LOG sheet for that individual tank. Information on the exact location of a particular sampling point will be found on the UNDERGROUND STORAGE TANK REMOVAL AND SAMPLING LOG and the TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS. The location of individual sampling points and stockpiled material is shown on DIAGRAM TWO. Additional information on the exact method of sample collection will be found in the SAMPLING METHODOLOGY section of this report.

After completion of the field work, the sample containers were delivered to Brown and Caldwell Laboratories in Emeryville, California. Brown and Caldwell Laboratories is a California Department of Health Services certified Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #104. It was requested that the analytical procedures used for these analyses be those specified by the Regional Water Quality Control Board -- San Francisco Bay Region. The methods are defined in attachments to the San Francisco RWQCB (Region 2) publication, Guidelines For Addressing Fuel Leaks.

D I A G R A M S & T A B L E S

Graphic and Tabular presentation of all samples

The TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS relies on a system of designated SAMPLING AREAS which are specific locations on the site which correspond to the fuel dispensing fixtures that were originally in place there. Briefly, the tanks are assigned a letter and a suffix which comprise a descriptive identification. Even when the tanks have been removed, all samples taken in that area of the site are referenced to that particular SAMPLING AREA which can be cross referenced to construction blueprints, permit drawings and similar documents.

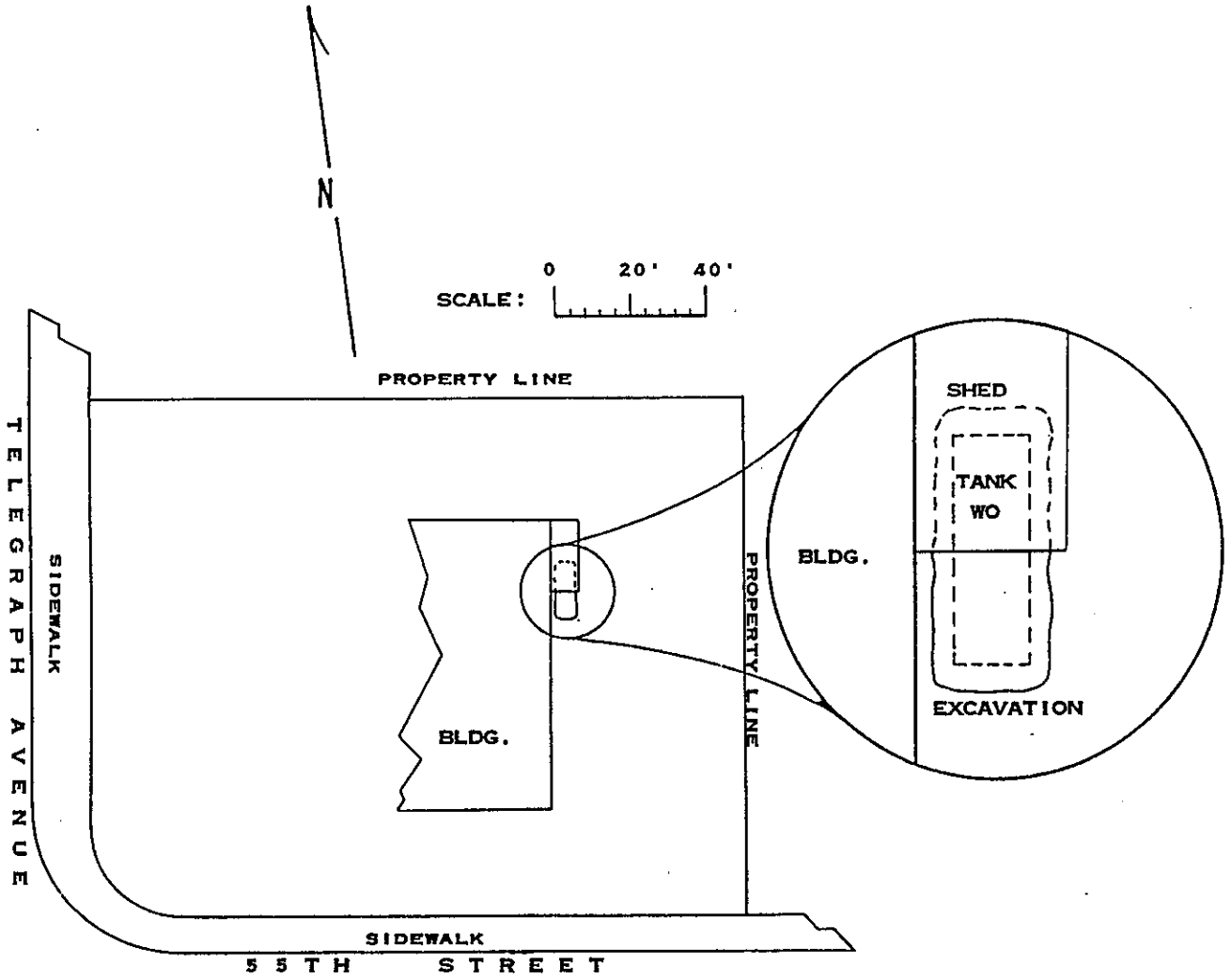
DIAGRAM ONE shows the location of key features of the site including streets, property lines, and the location of underground storage tanks. The diagram shows that each tank has been assigned an arbitrary letter designation (Tank A, Tank B etc.). This simplifies communications concerning a particular tank by providing a nomenclature that does not rely on descriptions by size and tank contents.

DIAGRAM TWO shows a finer level of detail. A descriptive suffix is added to the tank identification letter, in order to designate a SAMPLING AREA at that particular end of that tank. For example, Tank A is given an F suffix to indicate the fill pipe end and AF is used to define the area in which samples are taken. The opposite end of the tank from the fill pipe is given an OP suffix, and that SAMPLING AREA is, thereafter, referred to as Aop. The approximate midpoint of the tank is given an M suffix if a sample is taken from that location.

Diagram two also shows the location of stockpiled material. Individual sampling points within each stockpile are given letter designations, usually A and B or A through D. Stockpile samples are taken in accordance with the Bay Area Air Quality Monitoring District's guideline for a representative distribution of sample points throughout a single stockpile of soil.

The relationship between a given tank and its sample collection points is more precisely illustrated in the UNDERGROUND STORAGE TANK REMOVAL AND SAMPLING LOG. The log sheet contains an end view and cross section of the tank which graphically depicts the SAMPLING AREAS at each end of that tank. Whenever holes are discovered in a tank during either removal or a post-removal inspection, the location of the holes is indicated on the TSR projection.

DIAGRAM ONE

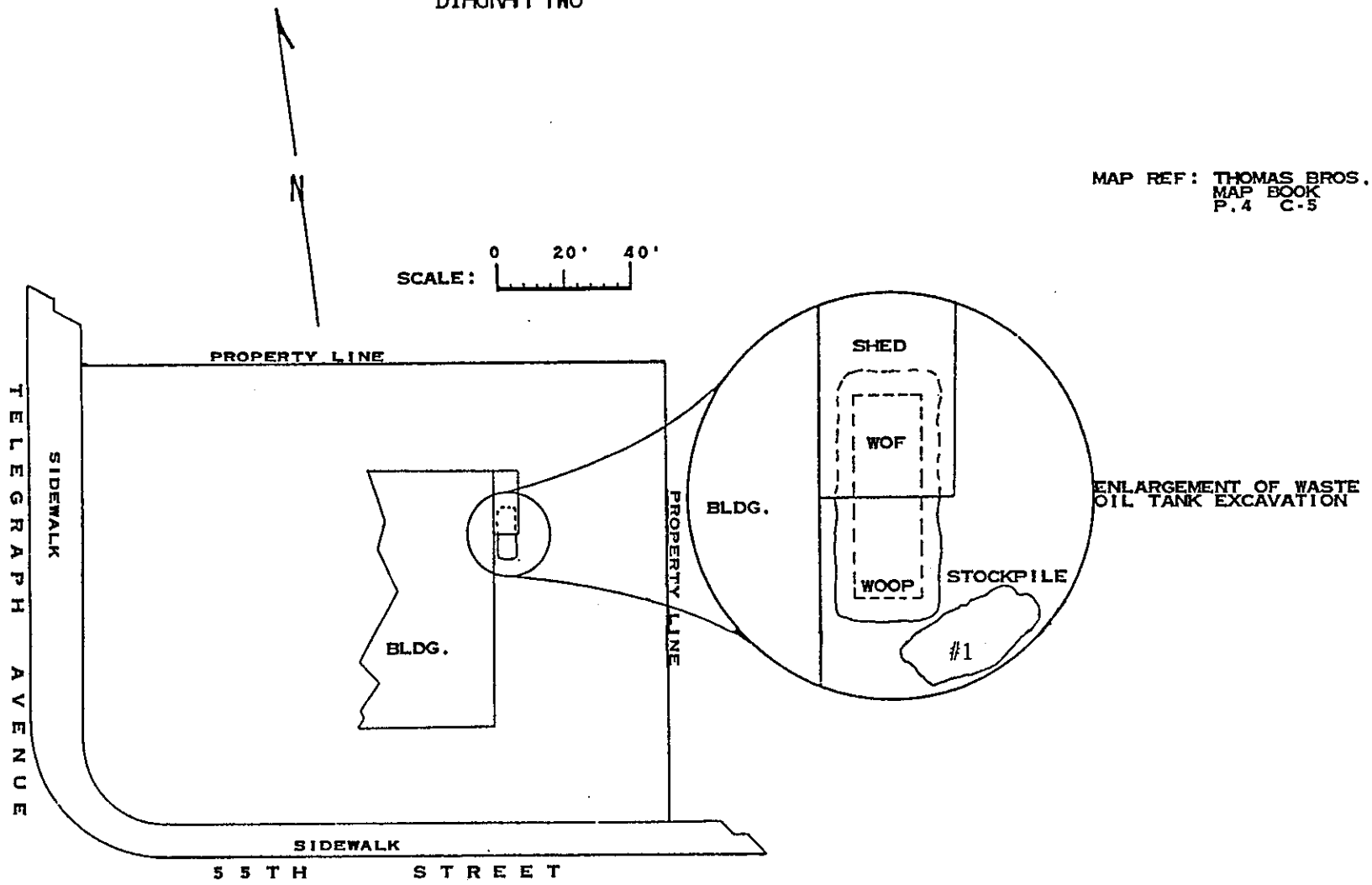


MAP REF: THOMAS BROS.
MAP BOOK
ALAMEDA COUNTY
P.4 C-5

ENLARGEMENT OF WASTE OIL TANK EXCAVATION

TANK WO 1,000 GALLON WASTE OIL, STEEL TANK

DIAGRAM TWO



MAP REF: THOMAS BROS. MAP BOOK P.4 C-5

ENLARGEMENT OF WASTE OIL TANK EXCAVATION

SAMPLING PERFORMED BY MARGO MACKEY
DIAGRAM PREPARED BY BRENT ADAMS

TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS

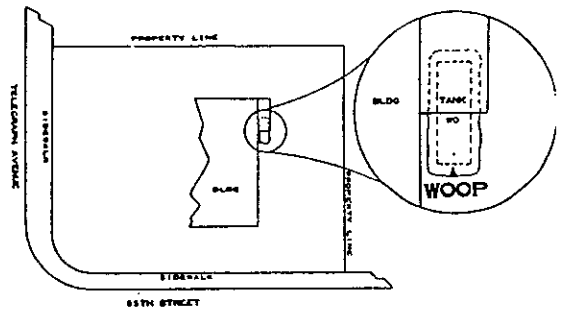
I.D. GIVEN THIS SAMPLE AREA	SAMPLE DEPTH IN FT. BELOW GRADE	SAMPLING LOCATION DICTATED BY	TYPE & METHOD FOR THE SAMPLE OBTAINED	SAMPLE MATRIX	DATE SAMPLED	BTS CHAIN OF CUSTODY I.D.	BTS SAMPLE I.D.	NAME OF DOHS HMTL LABORATORY	LABORATORY SAMPLE I.D.	ANALYTICAL RESULTS IN PARTS PER MILLION -- PPM TPH-HBP DIESEL	TOTAL OIL & GREASE	EPA 8240 COMPOUNDS
Woop	8'	STANDARD	INTERFACE	SOIL	10/5/88	88279-M-1	#2	BROWN & CALDWELL	10-067-2	ND	ND	ND
WoSTOCK	12"	SURVEY	BAAQMD MODIFD	SOIL	10/5/88	88279-M-1	#1	BROWN & CALDWELL	10-067-1	ND	81	ND

BLAINE
TECH SERVICES

UNDERGROUND STORAGE TANK
REMOVAL AND SAMPLING LOG

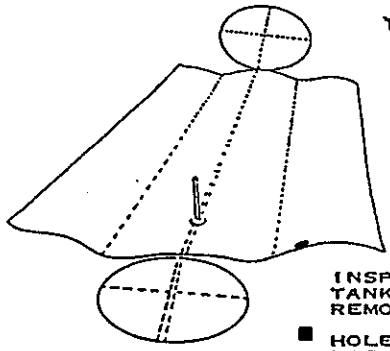
TANK
WO

TANK WO 1,000 GALLON WASTE OIL TANK
STEEL CONSTRUCTION



SITE DIAGRAM

TSR PROJECTION



INSPECTION OF THE TANK FOLLOWING REMOVAL FOUND

■ HOLE IN THE LOCATION DEPICTED ON THE TSR PROJECTION

□ NO HOLES

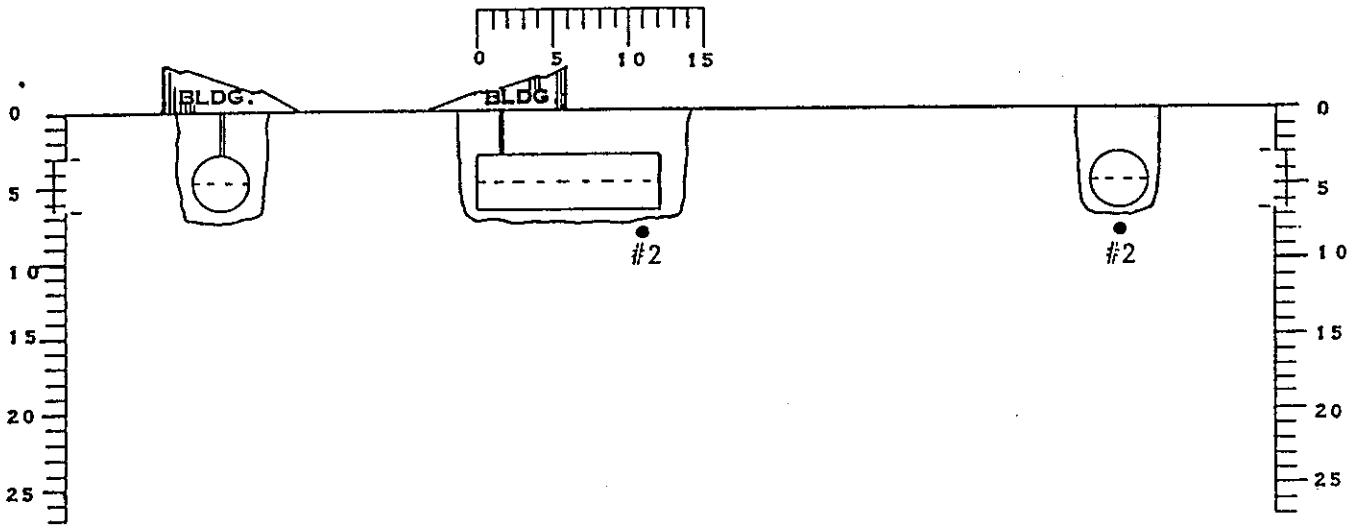


TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS

I.D. GIVEN THIS SAMPLE AREA	SAMPLE DEPTH IN FT. BELOW GRADE	SAMPLING LOCATION DICTATED BY	TYPE & METHOD FOR THE SAMPLE OBTAINED	SAMPLE MATRIX	DATE SAMPLED	BTS CHAIN OF CUSTODY I.D.	BTS SAMPLE I.D.	NAME OF DOHS RMTL LABORATORY	LABORATORY SAMPLE I.D.	ANALYTICAL RESULTS IN PARTS PER MILLION -- PPM TPH-HBF DIESEL	TOTAL OIL & GREASE	EPA 8240 COMPOUNDS
Woop	8'	STANDARD	INTERFACE	SOIL	10/5/88	88279-M-1	#2	BROWN & CALDWELL	10-067-2	ND	ND	ND

GENERAL PRACTICES WITHIN A MULTIPLE AGENCY HIERARCHY

U.S. Environmental Protection Agency standards serve as the foundation for all field sampling operations performed by our firm. The EPA SW 846 is the primary publication from which procedures are derived, though there are additional EPA sources such as training films and verbal communications. Sampling related to underground storage tanks and tank related threats to groundwater are governed by the California Water Resources Control Board and its Regional Water Quality Control Boards. While some aspects of field and laboratory work may be delegated to the California Department of Health Services, the CWRCB and the nine Regional Water Quality Control Boards establish the general and specific criteria for sampling performed in connection with underground storage tanks. This is done through the publication of guidance documents, the issuance of memoranda, and verbal announcements.

Other agencies, such as Air Pollution Control Districts, may require additional samples, but these are usually in addition to samples required by the RWQCB. Local implementing agency (LIA) inspectors are frequently present during the tank removal phase of a project and either direct or request that samples be taken according to RWQCB specifications. Additional samples may, and frequently are, taken at the request of the LIA inspector.

Based on field conditions directly observable by the LIA inspector, our field personnel may be asked to collect samples that are tailored to the specific situation and which the inspector judges will provide substantial information about the site. Quite often these directions or suggestions coincide with the sampling areas established by the RWQCB as the proper collection points for samples which will be used as the Primary Criteria for a Regulatory Agency Determination on whether additional exploration or remediation will be required at a particular site. Similarly, there are instances when the LIA inspector's judgements do not coincide with Board specifications.

Two common examples of this are as follows:

1. A local implementing agency inspector notes that soil dug up from the correct RWQCB interface sampling point is relatively clean, but observes that there is quite obviously contaminated backfill underlying the center of the tank. The inspector directs that the contaminated backfill should be taken instead of the clean interface soil so as to provide information about the "worst case" conditions within the tank pit.

2. The soil at the specified interface sampling depth is found to be slightly contaminated, but much less so than the soil only a few inches above. Noting the relatively dense soil, the local implementing agency inspector decides not to have the interface soil sampled and has the backhoe dig deeper to see if the contamination diminishes to acceptable levels. This exploration saves

the property owner the cost of running two samples at that location, and enables the inspector to directly observe the condition of the deeper soil.

In both examples, different material is collected in lieu of a standard RWQCB interface sample. Further, the material collected is substantially different from what would have been obtained by taking representative soil at the Board specified sampling location. Note that both of these samples were taken at the direction of the local implementing agency inspector who was present at the site and elected to select alternative sampling locations. Note too, that these alternative samples may provide more information about the site than standard Board specified samples. However, as the LIA elected samples do not accurately reflect soil conditions at the sampling points specified by the RWQCB, the decision making process may be hampered.

Clearly there is no advantage in limiting the ability of the regulator in the field to make prudent judgements. Likewise, regulatory personnel and consultants who will review the reports without benefit of having been present at the site need to know that the samples taken were not obtained at the standard locations. A simple resolution to these situations is a brief notation indicating that the sampling was elective rather than in accordance with a standard Board specification. These notations appear in the third column of the TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS. By referring to the notations in column three and four in the TABLE, any party reviewing the report should be able to determine if something other than Board standard samples were obtained, and when variant sampling was performed, clarify whether it was elected by the LIA inspector, elected by our field personnel, or the result of some physical condition at the site that made it impossible to obtain material from the correct sampling location.

SAMPLING METHODOLOGIES USED ON THIS PROJECT

STANDARD RWQCB INTERFACE SAMPLE: The tank removal sampling followed the standard protocol for obtaining interface samples. These samples fall into the category of samples which are known to be of primary concern to the interested regulatory agencies for determining if additional action will be required at a site and the methodology has been closely defined in state and RWQCB publications, supplements, and presentations. These specify both the acceptable depth and lateral situation of sample collection points. In accordance with these specifications, sample collection is executed as close as possible to the center line (longitudinal axis) of the tank and on a vertical axis with the fill pipe. A corresponding location is also found at the opposite end of the tank whenever standard interface samples are being collected.

Briefly, the method consists of digging up native soil from directly below the fill pipe and the corresponding opposite end of the tank and obtaining a sample from the backfill/native soil interface or a short distance below the interface. In the case of tanks less than 1,000 gallons in capacity, only one sample from beneath the tank is required. A short distance has been defined by Region 2 Board engineers as not greater than twenty-four inches

below the backfill/native soil interface and is generally taken to be one foot below the the backfill/native soil interface. This soil is brought up in the backhoe bucket. A shovel or trowel is used to cut away surface soil and backfill material which may have been included in the bucket, and the sample is taken by pushing or driving a brass sample liner into the newly exposed soil from the designated depth and location. Additional clarifications by Region 2 Board engineers have indicated that when there is an obvious difference in the relative contamination of soil brought up from the interface depth, then it is the relatively more contaminated soil that should be selected for inclusion in the sample.

STOCKPILE SURVEY MODIFIED BAAQMD PROTOCOL: This sampling follows a survey pattern, but uses a modified BAAQMD protocol for sampling stockpiles of material that have been newly removed from a tank pit excavation. This protocol calls for a discrete sample container to be collected for every 12.5 cubic yards of material. The survey includes opposite sides of the stockpile. Strict observance of the BAAQMD protocol (for purposes of evaluating the levels of fuel vapor likely to be discharged from a stockpile) calls for inclusion of the surface material in the brass liner which is driven into the pile at a right angle (to the angle of repose) until the liner is full. Unless specifically asked to follow the BAAQMD protocol, our personnel routinely modify the procedure to exclude the surface soil and collect soil from a depth of eight to eighteen inches. While this prejudices the sample in the direction of yielding higher results than would a strict BAAQMD sample, it is more representative of the levels of fuel hydrocarbons present in the soil and is not likely to mislead the client or contractor into offhauling or backfilling with soil stockpiles that are relatively clean at the surface, but unacceptably contaminated through the remainder of their volume.

SAMPLE CONTAINERS

Our firm uses new sample containers of the type specified by either EPA or the RWQCB for the collection of samples at sites where underground storage tanks are involved. Soil samples for volatile, semivolatile and nonvolatile analyses are all collected in properly prepared new brass liners which are 2 inches in diameter by 4 inches in length. Closure is accomplished with press fit plastic end caps which are fitted to the open ends of brass tube after a sheet of aluminum foil is wrapped over the exposed sample material. A non-contributing/nonsubtractive tape is wrapped completely around the joint areas where the plastic caps meet the outer wall of the brass tube. No preservative other than cold storage is used on samples captured in sample containers of this type.

SAMPLE HANDLING PROCEDURES

Solid sample material is captured by advancing the liner into the soil. This may be done by pushing the liner into soft soils or by containing the liner in a drive shoe which can be advanced and then retracted by means of a slide hammer. The open ends of the sample liner are covered with aluminum foil and

plastic end caps. Excess aluminum foil is removed and the edge of the plastic end caps is tightly sealed against the outer surface of the brass liner with an unbroken wrap made with a tape which has been tested to confirm that it does not contribute compounds that would be detected in the type of analyses intended for the sample contained inside of the brass liner. The brass liner is then labeled with the appropriate identification numbers which specify the sampling activity designation number, sample collection area, depth etc. that apply to that particular sample. The sample liner is then placed in an ice chest which contains pre-frozen blocks of an inert ice substitute such a Blue Ice or Super Ice.

SAMPLE DESIGNATIONS

All samples containers are identified with both an activity number and a discrete sample identification. Please note that the activity number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days as an actual activity often does. This is followed by the sample I.D. number which is usually a simple number such as #1, #2, #3.

CHAIN OF CUSTODY

Samples are continuously maintained in either a chilled ice chest, refrigerator, or freezer from the time of collection until acceptance by the State certified Hazardous Materials Testing Laboratory selected to perform the analytical procedures. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

LABORATORY IDENTIFICATION NUMBERS

Following receipt of the samples and completion of the Chain of Custody form, the laboratory then assigns their own identification numbers to the samples. Different laboratories use different numbering systems and, according to their own internal conventions, may or may not assign sequential numbers to samples which are placed on temporary "hold", pending the results of other analyses. Laboratory identification numbers (if assigned and available) are included in the TABLE, and will be found on the certified analytical report by the analytical laboratory.

CERTIFIED ANALYTICAL REPORT

The certified analytical report (CAR) generated by the laboratory is the official document in which they issue their findings. The Results of Analyses section of the TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS

should correspond exactly with the laboratory's CAR. Any discrepancy between analytical values should be decided in favor of the CAR, for while it may, itself, be in error with regard to a particular number, the CAR remains the recognized document until such time as it is amended with a corrected report.

The certified analytical report should also be reviewed when samples are taken from below waste oil tanks as any detection of the EPA halogenated and purgeable aromatic compounds may be grounds for requiring further action. Also the TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS is insufficiently spacious to allow anything more that a simple listing of the detected compounds. The TABLE does not include such information as the detection limits at which other compounds were not detected. The full text of the laboratory report will be found in Section Four of this report.

GENERAL ADVISORY ON POSITIVE RESULTS

Though our firm specializes in sampling, monitoring and documentation, rather than interpretation and remediation, we have been asked by the engineering staff of the Regional Water Quality Control Board to include in our reports an advisory section outlining the general type of additional actions which may be required when contamination is found. This advisory is not intended to characterize conditions at this particular site or replace the services of a consulting firm specializing in the investigation, characterization and remediation of such conditions as may exist. Rather, it is intended to advise you that such additional actions may be required even though some time may elapse before you are contacted by one of the interested regulatory agencies.

In Region 2 (which is regulated by the San Francisco Regional Water Quality Control Board), the thresholds are readily defined in the Board's publication, Guidelines For Addressing Fuel Leaks. According to this document, soil which has less than 100 parts per million total petroleum fuel hydrocarbon (TPH) contamination does not generally require immediate additional action. Board engineers emphasize that this does not mean that some action might not be required in the future. Still, the site is assigned a low priority unless it is situated in an area of high hydrogeologic concern.

The detection of more than 100 ppm TPH in the native soil beneath a tank is generally considered grounds for requiring an additional investigation in the form of soil borings and installation of at least one groundwater monitoring well followed by periodic monitoring. The detection of 1000 ppm TPH is usually viewed by the Board as an unacceptable level of fuel saturation which will mandate excavation of the effected ground down to the furthest practicable reach of conventional excavating machinery followed by soil borings and installation of groundwater monitoring wells.

Other regions use different standards for determining when a groundwater investigation will be required. For example benzene is often used in lieu of TPH. Even very low levels of benzene are often seen as grounds for requiring a subsurface investigation. This criteria may be relaxed or stiffened

depending on the location of the site in relation to different groundwater systems, the depth to water, type of soil, and the concentrations of benzene involved.

The above standards apply only to fuels. When samples taken in connection with a waste oil tank or a solvent tank are found to contain even small amounts of any of the EPA priority pollutants (such as TCE, PCE, DCE etc. which are detected by EPA methods 8010, 8020, and 8240) more stringent standards are often applied. In these cases, soil borings and monitoring well installation may be required if there is any detectable amount of any of the EPA priority pollutant compounds.

When contaminants are found to have reached the water underlying a site, the Board customarily requires that additional work be undertaken in order to define the extent of contamination.

REPORTAGE

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody, and the certified analytical report issued by the Hazardous Materials Testing Laboratory. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
1111 Jackson Street
Room 6040
Oakland, CA 94607
ATTN: Greg Zentner

Alameda County Health Agency
Division of Hazardous Material
80 Swan Way Room #200
Oakland, CA 94612
ATTN: Thomas F. Peacock

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/rp

attachments: supporting documents

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-10-067

Received: 05 OCT 88
Reported: 12 OCT 88

Darrell Hovander
Chevron U.S.A. Inc.
2 Annabel Lane, Suite 200
San Ramon, CA 94583

Purchase Order: M6-6CWC-0287-8-X-1 Rel.#1

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
10-067-1	Sample #1	05 OCT 88
10-067-2	Sample #2	05 OCT 88

PARAMETER	10-067-1	10-067-2
Hydrocarbons by IR, mg/kg	<50	81
Total Fuel Hydrocarbons		
Date Analyzed	10.05.88	10.05.88
Total Fuel Hydrocarbons, mg/kg	<10	<10
Other Total Fuel Hydrocarbons	---	---

Sim D. Lessley, Ph.D., Laboratory Director

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-10-394

Received: 05 OCT 88
Reported: 21 OCT 88

Darrell Hovander
Chevron U.S.A. Inc.
2 Annabel Lane, Suite 200
San Ramon, CA 94583

Purchase Order: M6-6CWC-0287-8-X-1 Rel.#1

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
10-394-1	Sample #1 (10-67-1)	05 OCT 88
10-394-2	Sample #2 (10-67-2)	05 OCT 88

PARAMETER	10-394-1	10-394-2
Purgeable Priority Pollutants		
Date Extracted	10.18.88	10.18.88
1,1,1-Trichloroethane, mg/kg	<0.1	<0.1
1,1,2,2-Tetrachloroethane, mg/kg	<0.1	<0.1
1,1,2-Trichloroethane, mg/kg	<0.1	<0.1
1,1-Dichloroethane, mg/kg	<0.1	<0.1
1,1-Dichloroethylene, mg/kg	<0.1	<0.1
1,2-Dichloroethane, mg/kg	<0.1	<0.1
1,2-Dichloropropane, mg/kg	<0.1	<0.1
1,3-Dichloropropene, mg/kg	<0.1	<0.1
2-Chloroethylvinylether, mg/kg	<1	<1
Acrolein, mg/kg	<1	<1
Acrylonitrile, mg/kg	<0.1	<0.1
Bromodichloromethane, mg/kg	<0.1	<0.1
Bromomethane, mg/kg	<0.1	<0.1
Benzene, mg/kg	<0.1	<0.1
Chlorobenzene, mg/kg	<0.1	<0.1
Carbon Tetrachloride, mg/kg	<0.1	<0.1
Chloroethane, mg/kg	<0.1	<0.1
Bromoform, mg/kg	<0.1	<0.1
Chloroform, mg/kg	<0.1	<0.1
Chloromethane, mg/kg	<0.1	<0.1
Dibromochloromethane, mg/kg	<0.1	<0.1
Ethylbenzene, mg/kg	<0.1	<0.1
Methylene chloride, mg/kg	<0.1	<0.1
Tetrachloroethylene, mg/kg	<0.1	<0.1

BROWN AND CALDWELL LABORATORIES
1255 POWELL STREET EMERYVILLE, CA 94608 • (415) 428-2300

ANALYTICAL REPORT

LOG NO: E88-10-394

Received: 05 OCT 88
Reported: 21 OCT 88

Darrell Hovander
Chevron U.S.A. Inc.
2 Annabel Lane, Suite 200
San Ramon, CA 94583

Purchase Order: M6-6CWC-0287-8-X-1 Rel.#1

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES	DATE SAMPLED
10-394-1	Sample #1 (10-67-1)	05 OCT 88
10-394-2	Sample #2 (10-67-2)	05 OCT 88

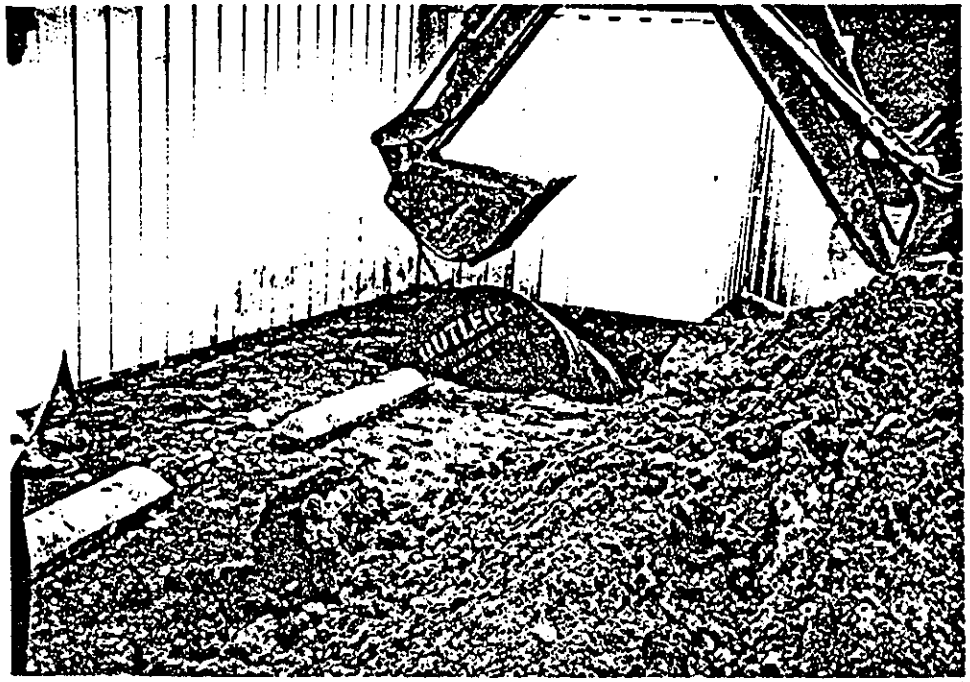
PARAMETER	10-394-1	10-394-2
Trichloroethylene, mg/kg	<0.1	<0.1
Trichlorofluoromethane, mg/kg	<0.1	<0.1
Toluene, mg/kg	<0.1	<0.1
Vinyl chloride, mg/kg	<0.1	<0.1
trans-1,2-Dichloroethylene, mg/kg	<0.1	<0.1
trans-1,3-Dichloropropene, mg/kg	<0.1	<0.1
2-Hexanone, mg/kg	<0.1	<0.1
Acetone, mg/kg	<1	<1
Carbon Disulfide, mg/kg	<0.1	<0.1
Freon 113, mg/kg	<0.1	<0.1
Methyl ethyl ketone, mg/kg	<2	<2
Methyl isobutyl ketone, mg/kg	<0.1	<0.1
Styrene, mg/kg	<0.1	<0.1
Vinyl acetate, mg/kg	<0.1	<0.1
Total Xylene Isomers, mg/kg	<0.1	<0.1

Verbal results reported to B.McNabb, Blaine Technical Services, by L.Penfold on 10/21/88.

Sim D. Lessley, Ph.D., Laboratory Director

TABLE OF SAMPLING LOCATIONS AND ANALYTICAL RESULTS

I.D. GIVEN THIS SAMPLE AREA	SAMPLE DEPTH IN FT. BELOW GRADE	SAMPLING LOCATION DICTATED BY	TYPE & METHOD FOR THE SAMPLE OBTAINED	SAMPLE MATRIX	DATE SAMPLED	BTS CHAIN OF CUSTODY I.D.	BTS SAMPLE I.D.	NAME OF DOHS HMTL LABORATORY	LABORATORY SAMPLE I.D.	ANALYTICAL RESULTS IN PARTS PER MILLION -- PPM TPH-HBF DIESEL	TOTAL OIL & GREASE	EPA 8240 COMPOUNDS
Woop	8'	STANDARD	INTERFACE	SOIL	10/5/88	88279-M-1	#2	BROWN & CALDWELL	10-067-2	ND	ND	ND
WoSTOCK	12"	SURVEY	BAAQMD MODIFD	SOIL	10/5/88	88279-M-1	#1	BROWN & CALDWELL	10-067-1	ND	81	ND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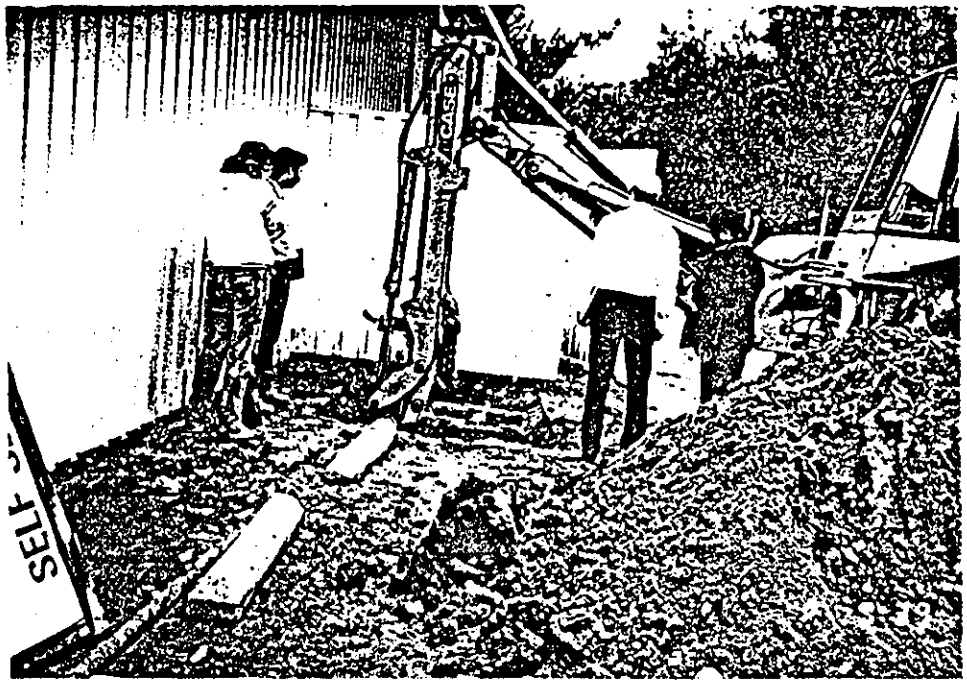
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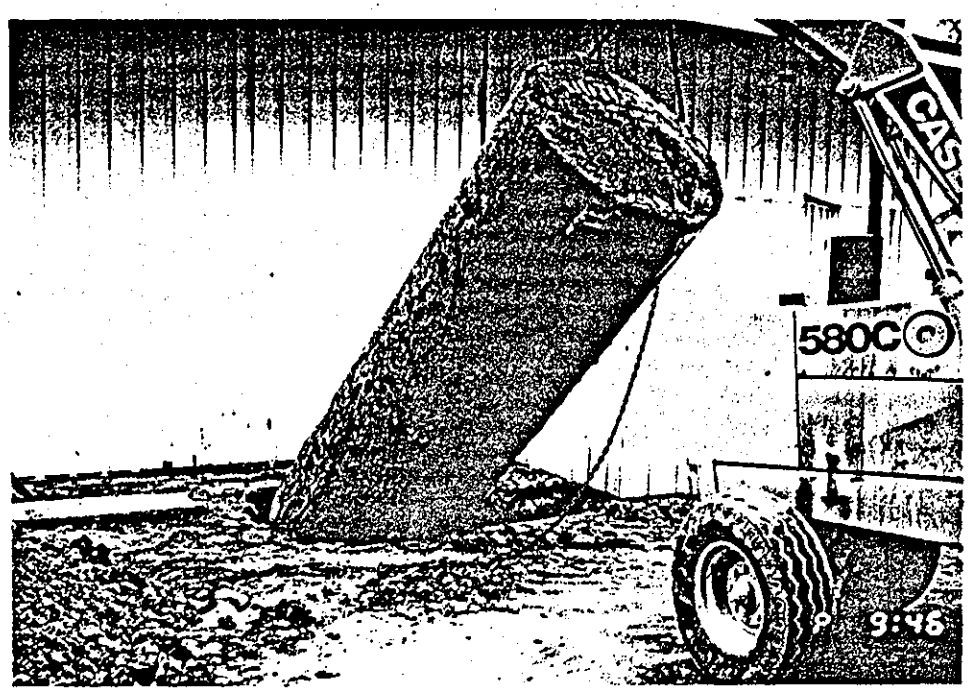
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