desert petroleum inc.

John Rutherford
Director
Environmental Affairs

March 29, 1988

Alameda County
Health Care Services
470 27th Street, Room 322
Oakland, CA 94612
Attn: Hazardous Management Unit

Re: SS# 795
2008 First Street
Livermore, CA

Gentlemen:

Please find enclosed a copy of our consultants report concerning the above location along with recent soils testing done while placing vapor probe installations for future monitoring.

While the report indicates elevated levels of hydrocarbons, we believe this to be historical due to overfill and spillage during product deliveries.

Recent precision testing of the tanks and piping confirm that the systems are tight. These testing results were previously submitted to your agency on March 16, 1988.

As a precaution we are submitting our consultants report and will await further direction.

Very truly yours,

J. D. Rutherford

JDR:ca
enclosures

APR 01 1988

Suite 212
100 West Rincon Avenue
Campbell, CA 95008

Geonomics Inc.

ENVIRONMENTAL SERVICES DIVISION

Contractor's Lic.
CA #478010
(408) 374-9116

March 10, 1988

Mr. J. D. Rutherford
Desert Petroleum, Inc.
P.O. Box 1601
Oxnard, CA 93032

Dear Mr. Rutherford,

Attached is a copy of the report describing the partial installation of vapor monitoring probes (wells), soil sampling, and laboratory analyses for your service station located at 2008 First St., Livermore, California. Except for installation of the surface vaults, four probes (wells) have been completed in the backfill surrounding the storage tanks. Installation of the surface vaults await a judgement regarding the condition of the site, with respect to the appropriate use of vapor monitoring for leak detection. Meanwhile, the top of the probes (wellheads) have been covered with pea gravel and a temporary concrete plug. The concrete seals are flush with the surrounding pavement.

The initial vapor readings from two probes (DPL-1 and DPL-2) in the tank backfills at this facility were relatively high, over 13,000 PPM. Because the backfill of Tank #2 was pea gravel, we were unable to take a sample below probe DPL-2 where high vapor concentrations were detected. We suspect that the high vapors detected adjacent to this tank may result from overfill and/or spillage events.

The two of the three soils samples that were obtained at the site, below probes DPL-3 and DPL-4 did not indicate significant hydrocarbon contamination. Sample DPL-288-1 from below probe DPL-1 showed hydrocarbon contamination of 400 PPM.

While the results of the drilling and vapor testing provide evidence of some hydrocarbon contamination, the origin and extent of the contamination is unknown at this time. We will keep in contact with you to resolve the eventual outcome of the project.

We have appreciated the opportunity to be of service to you in this matter. If you have questions regarding any aspect of the report, please contact us. As we discussed, an invoice for our time and materials, to date, is enclosed.

Sincerely,

Ronald W Michelson

Ronald W. Michelson
Registered Geologist (CA #3875)

enclosures

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ENVIRONMENTAL SERVICES DIVISION

March 10, 1988

**Report for Soil Sampling and Vapor Monitoring Probe Installation-
Near Underground Storage Tanks**

Name of Business: Desert Petroleum, Inc. #795

Site address: 2008 First St., Livermore, CA

Type of work performed: Soil samples taken adjacent to underground storage tanks for laboratory testing, and installation of vapor monitoring probes

Date sampled: February 23-24, 1988

Number of tanks: 3

Tank - capacity (approx.), contents, depth to bottom:

Tank 1: 10,000 gal., gasoline, (unleaded), 12.2'

Tank 2: 10,000 gal., gasoline, (leaded), 12.2'

Tank 3: 8,000 gal., gasoline, (ethyl), 12.2'

Soil samples:

Sample #	Depth(ft)	Description (See attached Site Map)
DPL-288-1	14.6	Between tanks 1, 2, & 3. Silty fine sand with pebbles, stained green
DPL-288-3	15.0	At north end of Tank 3. Silty sand with pebbles and cobbles.
DPL-288-4	16.3	At south end of Tank 1. Silty sand with pebbles and cobbles.

Laboratory results: (lab report attached)

Sample Number	Tested for:	Test results (In ppm)
	Note: < means below the reporting limit.	
DPL-288-1	Total Volatile Hydrocarbons (gasoline)	400.0
	Benzene	7.5
	Toluene	9.5
	Total xylenes	27.0
DPL-288-3	Total Volatile Hydrocarbons (gasoline)	<1.0
	Benzene	<2.0
	Toluene	<0.6
	Total xylenes	<0.6
DPL-288-4	Total Volatile Hydrocarbons (gasoline)	<1.0
	Benzene	<2.0
	Toluene	<0.6
	Total xylenes	<0.6

Quality assurance:

Samples were obtained, handled, and analyzed according to State Water Quality Control Board, and EPA guidelines.

Each sample was taken with a split tube type drive sampler in 1 1/2 inch brass tube. The tube was immediately capped with aluminum foil and plastic caps and taped.

The sample was refrigerated immediately after sampling and kept refrigerated while transported from the field. At Geonomics headquarters the samples were deep frozen and maintained in a frozen condition until delivery to a State certified testing laboratory.

Chain-of-custody documentation was maintained and a copy is included.

Ronald W. Michelson

Ronald W. Michelson
Registered Geologist (CA #3875)

3/10/88
Date

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Vapor Probe Installation Report

Well Owner: Desert Petroleum, Inc.
Address: 2008 First St. & L. St. City: Livermore, CA
Well #: DPL-1 Well Type: Vapor monitoring probe Date installed: 2/24/88

Bottom of tank: 12.2 ft Top of tank: 4.5 ft

Initial vapor reading: >13,000 PPM [1] (GasTech) Contents of tank: gasoline

Backfill: pea gravel
Type: & sand From: 1.0 ft to: 12.0 ft Diameter of bore: 6.0 in.

Casing Installed:
Type: Plastic From: 0.5 ft to: 13.4 ft Diameter: 2.0 in

Perforations:
Slot size: .020 in. From: 8.6 ft to: 13.4 ft

Surface Seal:
Temporary
From: Surface to: 0.5 ft Method of sealing: Concrete

Well Log

Total Depth 14.6 ft Completed Depth 13.4 ft

Interval Sampled	Description
0.0 - 0.4 ft	Asphalt
0.4 - 1.0 ft	Basefill, rocky
1.0 - 6.0 ft	Dark brown silty sand & pea gravel backfill
6.0 -12.0 ft	Silty sand, greenish stained.
12.0 -14.6 ft	Silty fine sand with pebbles, stained greenish brown Sample DPL-288-1 at 14.6'

1/ Initial vapor readings were obtained with a field hydrocarbon analyzer, Gastechtor Model 1238, manufactured by Gastech, Inc., Newark, California. The instrument was calibrated with hexane gas in air. Readings are extremely approximate and should be used in the relative sense only, to compare background conditions, rather as representing absolute values.

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Vapor Probe Installation Report

Well Owner: Desert Petroleum, Inc.
Address: 2008 First St. & L. St. City: Livermore, CA
Well #: DPL-2 Well Type: Vapor monitoring probe Date installed: 2/24/88

Bottom of tank: 12.2 ft Top of tank: 4.6 ft

Initial vapor reading: >13,000 PPM[1] (GasTech) Contents of tank: gasoline

Backfill:
Type: Pea gravel From: 0.4 ft to: 11.0 ft Diameter of bore: 6.0 in.

Casing Installed:
Type: Plastic From: 0.5 ft to: 11.0 ft Diameter: 2.0 in

Perforations:
Slot size: .020 in. From: 7.7 ft to: 11.0 ft

Surface Seal:
Temporary
From: Surface to: 0.5 ft Method of sealing: Concrete

Well Log

Total Depth 11.5 ft Completed Depth 11.0 ft

Interval Sampled	Description
0.0 - 0.4 ft	Asphalt
0.4 -11.0 ft	Pea gravel backfill
11.0 -11.5 ft	Silty sand, greenish-brown stained.

1/ Initial vapor readings were obtained with a field hydrocarbon analyzer, Gastechtor Model 1238, manufactured by Gastech, Inc., Newark, California. The instrument was calibrated with hexane gas in air. Readings are extremely approximate and should be used in the relative sense only, to compare background conditions, rather as representing absolute values.

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Vapor Probe Installation Report

Well Owner: Desert Petroleum, Inc.
Address: 2008 First St. & L. St. City: Livermore, CA
Well #: DPL-3 Well Type: Vapor monitoring probe Date installed: 2/24/88

Bottom of tank: 12.2 ft Top of tank: 4.5 ft

Initial vapor reading: 125 PPM [1] (GasTech) Contents of tank: gasoline

Backfill:
Type: Sand From: 1.0 ft to: 12.2 ft Diameter of bore: 6.0 in.

Casing Installed:
Type: Plastic From: 0.5 ft to: 14.0 ft Diameter: 2.0 in

Perforations:
Slot size: .020 in. From: 8.7 ft to: 14.0 ft

Surface Seal:
Temporary
From: Surface to: 0.5 ft Method of sealing: Concrete

Well Log

Total Depth 15.0 ft Completed Depth 14.0 ft

Interval Sampled	Description
0.0 - 0.4 ft	Asphalt
0.4 - 1.0 ft	Rocky basefill
1.0 - 2.0 ft	Sand, medium to coarse backfill
2.0 -12.2 ft	Silty fine to medium sand backfill
12.2 -15.0 ft	Silty sand, w/ pebbles & cobbles Sample DPL-288-3 at 15.0'

1/ Initial vapor readings were obtained with a field hydrocarbon analyzer, Gastechtor Model 1238, manufactured by Gastech, Inc., Newark, California. The instrument was calibrated with hexane gas in air. Readings are extremely approximate and should be used in the relative sense only, to compare background conditions, rather as representing absolute values.

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Vapor Probe Installation Report

Well Owner: Desert Petroleum, Inc.
Address: 2008 First St. & L. St. City: Livermore, CA
Well #: DPL-4 Well Type: Vapor monitoring probe Date installed: 2/24/88

Bottom of tank: 12.2 ft Top of tank: 4.5 ft

Initial vapor reading: 250 PPM[1] (GasTech) Contents of tank: gasoline

Backfill:
Type: Sand From: 1.0 ft to: 16.3 ft Diameter of bore: 6.0 in.

Casing Installed:
Type: Plastic From: 0.5 ft to: 14.6 ft Diameter: 2.0 in

Perforations:
Slot size: .020 in. From: 8.8 ft to: 14.6 ft

Surface Seal:
Temporary
From: Surface to: 0.5 ft Method of sealing: Concrete

Well Log

Total Depth 16.3 ft Completed Depth 14.6 ft

Interval Sampled	Description
0.0 - 0.4 ft	Asphalt
0.4 - 1.0 ft	Rocky basefill
1.0 - 8.0 ft	Silty fine sand and backfill
8.0 -16.3 ft	Silty sand with pebbles & cobbles Sample DPL-288-4 at 16.3'

1/
Initial vapor readings were obtained with a field hydrocarbon analyzer, Gastechtor Model 1238, manufactured by Gastech, Inc., Newark, California. The instrument was calibrated with hexane gas in air. Readings are extremely approximate and should be used in the relative sense only, to compare background conditions, rather as representing absolute values.

Trace Analysis Laboratory, Inc.
3423 Investment Boulevard, #8 • Hayward, California 94545 (415) 783-6960

TAL

DATE: 3/3/88

LOG NO.: 5705

DATE SAMPLED: 2/24/88

DATE RECEIVED: 2/25/88

CUSTOMER: Geonomics, Inc.

REQUESTER: Ron Michelson

PROJECT: No. 301-88-4B, Desert Petroleum, 2008 1st Street, Livermore, CA

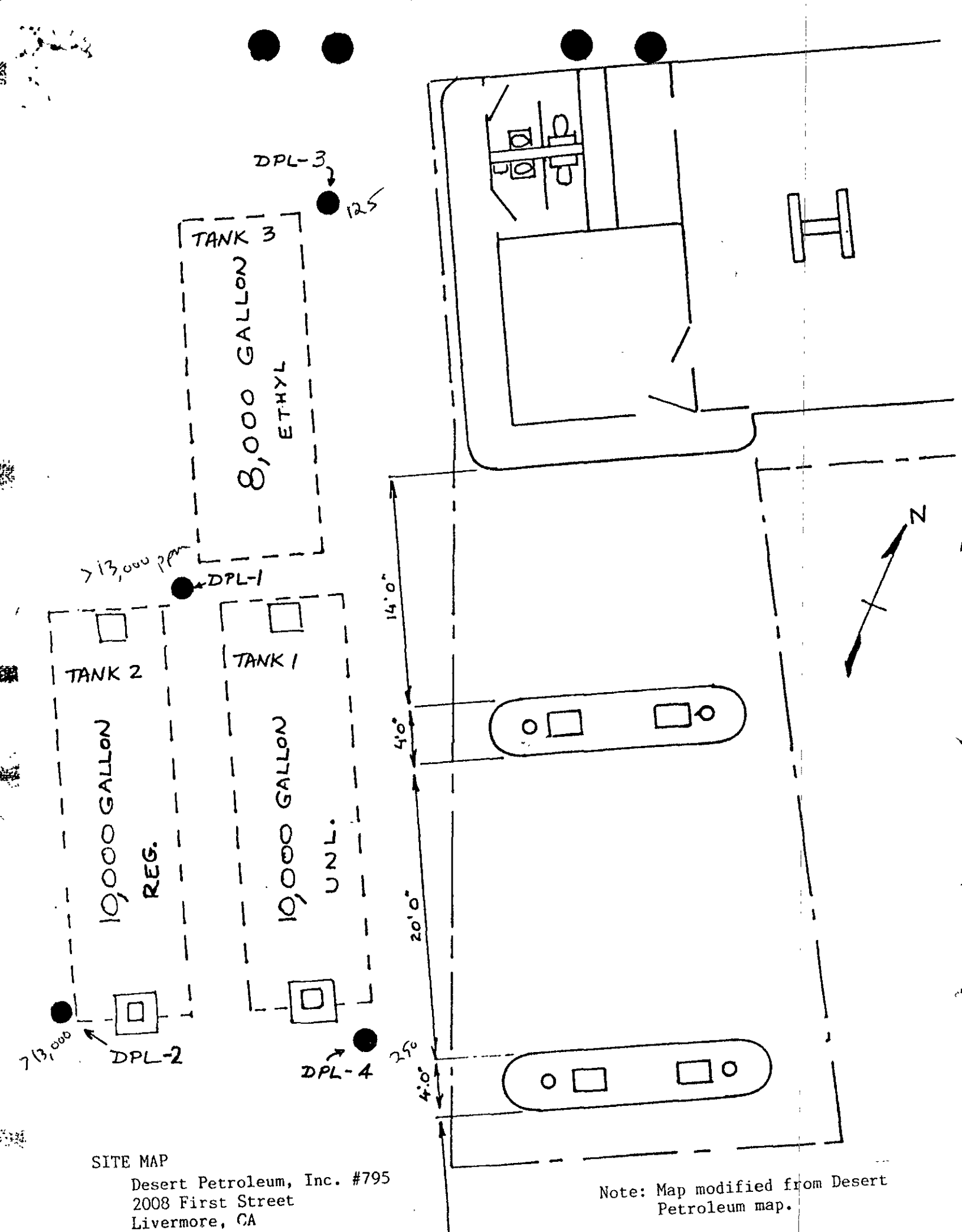
Sample Type: Soil

Method and Constituent	Units	DPL288-1 Concentration	DPL288-1 Detection Limit	DPL288-3 Concentration	DPL288-3 Detection Limit	DPL288-4 Concentration	DPL288-4 Detection Limit
Modified EPA Method 8015:			ppm				
Volatile Hydrocarbons	ug/kg	400,000 400 ppm	1,000	< 1,000	1,000	< 1,000	1,000
Modified EPA Method 8020:							
Benzene	ug/kg	7,500	7.5 2,000	< 2,000	2,000	< 2,000	2,000
Toluene	ug/kg	9,500	600	< 600	600	< 600	600
Xylenes	ug/kg	27,000	600	< 600	600	< 600	600

Hugh R. McLean

Hugh R. McLean
Supervisory Chemist

HRM:mln



SITE MAP

Desert Petroleum, Inc. #795
2008 First Street
Livermore, CA

Note: Map modified from Desert Petroleum map.