



**Touchstone
Developments**
Environmental Management

ENVIRONMENTAL
PROTECTION
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Product Piping Removal Soil Sampling Report

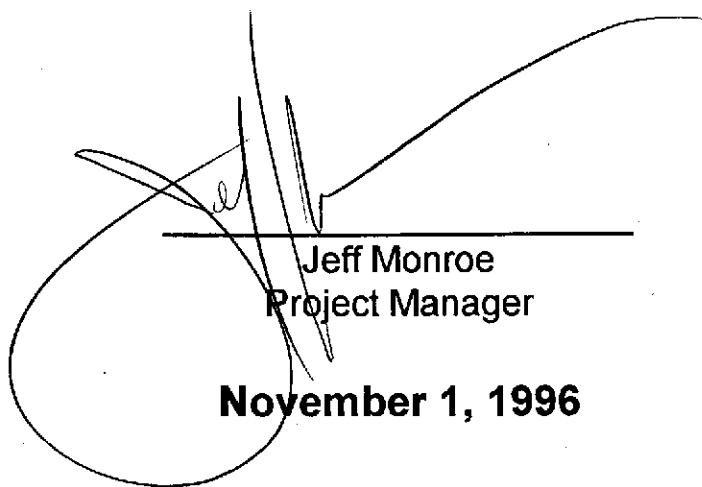
**Chevron Service Station Number 9-0121
3026 Lakeshore Avenue
Oakland, California**

prepared for

**Chevron Products Company
6001 Bollinger Canyon Road
San Ramon, California**

prepared by

Touchstone Developments



**Jeff Monroe
Project Manager**

November 1, 1996

INTRODUCTION

This report prepared by Touchstone Developments (Touchstone) documents the removal of product piping at 3026 Lakeshore Avenue, Oakland, California (Figure 1). In addition, this report documents the disposal of soil generated at this location. Soil samples collected from beneath the dispensers, product piping and soil stockpile was performed on September 3 and 4, 1996.

SITE CONDITIONS

The site is located at the junction of Lakeshore Avenue and MacArthur Boulevard in Oakland, California. The site is adjacent to an apartment complex to the east, commercial businesses to the south and west, and by Highway 580 to the north. Facilities at this service station site consist of four 10,000-gallon single-wall fiberglass gasoline underground storage tanks (USTs), associated product piping, three dispenser islands, and a Kiosk.

Groundwater was not encountered in any of the piping trench excavations.

SERVICE STATION FIELD ACTIVITIES

Product piping removal and replacement, excavation, and backfill were performed by Amer/Norman Construction, of Walnut Creek California. A Touchstone representative was on-site to collect soil samples from the trench excavations and soil stockpiles. Scott Seary from the Alameda County Department of Environmental Health (ACDEH) directed and observed Touchstones' collection of fifteen (15) soil samples. Transportation and disposal of product piping was accomplished by Erickson, Inc. of Richmond, California.

Product Piping Sampling

Soil samples P-2-2.5', P-3-2.5', P-4-2.5', P-6-3', P-8-2.5', P-10-2.5', P-12-2.5', and P-15-2.5' were collected from beneath the dispensers at depths of approximately 2 1/2 to 3 feet below ground surface (bgs). Soil samples P1-3', P-5-3', P-7-3', P-9-2', P-11-3', P-13-3' and P-14-2.5' were collected from the trenches beneath the former product piping at depths of approximately 2 to 3 feet (bgs). Soil sample locations are shown on Figure 1 and soil sample analytical results are summarized in Table A.

STOCKPILE SAMPLING AND DISPOSAL

Soil stockpile PSP-1(A-D) represents approximately 100 cubic yards (cy) of soil excavated to replace product piping on-site. One soil sample was collected and analyzed for approximately every 100 cy of stockpiled material. Upon receipt of chemical analytical data, soil represented by stockpile samples PSP-1(A-D) was transported by Allwaste Transportation and Remediation, Inc. (Allwaste) to Browning-Ferris Industries (BFI) located in Livermore, California. Soil stockpile locations are shown on Figure 1 and soil stockpile sample analytical results are summarized in Table A.

SAMPLING PROTOCOL

Verification soil samples were collected from the excavation sidewalls and/or bottoms at various depths or where hydrocarbon impact was suspected. Soil samples were collected from by pushing a clean, six-inch-long, two-inch diameter, brass sample tube into the soil until completely full. The ends of the sample tubes were covered with aluminum foil and sealed with plastic end caps. The samples were then labeled, placed in a cooler with ice, entered on a Chain-of-Custody form and transported to Sequoia Analytical, a State-certified environmental laboratory located in Redwood City, California.

Stockpile Sampling

Four soil samples were collected for approximately every 100 cy of material generated at the site. The four samples were then combined in the laboratory and analyzed as one. The stockpile sample was collected by removing the top 6 to 12 inches of soil, then pushing a sample glass jar into the soil until completely full. The sample was sealed with Teflon lids, labeled and handled as described above.

SAMPLE ANALYSIS

Soil samples collected from the product piping trenches and associated stockpiles were analyzed for Total Petroleum Hydrocarbons calculated as gasoline (TPH-Gasoline) according to EPA Method 8015 (Modified), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) and Methyl t-Butyl Ether (MTBE) according to EPA Method 8020, Total Lead according to EPA SW-846 6010, and STLC Lead extraction procedures. Copies of the analytical laboratory reports and Chain-of-Custody forms are presented in Appendix A.

List of Attachments

Table A	Soil Sampling Analytical Summary
Figure 1	Site Plan and Soil Sampling Map
Appendix A	Chemical Analytical Reports and Chain-of-Custody forms

**TABLE A
SAMPLING SUMMARY**

Chevron Service Station No. 9-0121

3026 Lakeshore Avenue, Oakland, California

Results in mg/Kg - parts per million (ppm), unless otherwise noted

PIPING TRENCH AND DISPENSER SAMPLING RESULTS

SAMPLE ID	DEPTH (ft.)	DATE	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	Lead
P1-3'	3	3-Sep-96	ND	ND	ND	ND	ND	ND	18
P2-2'	2	3-Sep-96	ND	ND	ND	ND	ND	ND	12
P3-2.5'	2.5	3-Sep-96	ND	0.0056	ND	ND	0.005	0.63	25
P4-2.5'	2.5	3-Sep-96	710	ND	19	7.8	78	15	28
P5-3'	3	3-Sep-96	110	ND	ND	ND	0.46	ND	14
P6-3'	3	3-Sep-96	1.3	0.021	0.15	0.033	0.18	2.5	6.6
P7-3'	3	3-Sep-96	ND	ND	0.0071	0.0063	0.024	0.49	8.0
P8-2.5'	2.5	3-Sep-96	4,100	33	19	51	30	31	20
P9-2'	2	3-Sep-96	1,400	ND	22	5.4	5.0	9.7	13
P10-2.5'	2.5	3-Sep-96	410	8.3	ND	4.8	2.4	ND	52
P11-3'	3	3-Sep-96	1,600	25	ND	25	26	ND	15
P12-2.5'	2.5	3-Sep-96	2,200	28	ND	23	12	ND	20
P13-3'	3	3-Sep-96	290	6.1	4.0	2.1	1.3	ND	36
P14-2.5'	2.5	3-Sep-96	2,500	40	20	27	76	ND	19
P15-2.5'	2.5	3-Sep-96	1,000	23	ND	13	3.0	ND	44

STOCKPILE SAMPLING RESULTS

SAMPLE ID	DATE	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	Lead	STLC Lead
PSP-1(A-D)	4-Sep-96	1,000	3.3	3.0	8.4	5	55	1.3

NOTES:

TPH-Gasoline = Total Petroleum Hydrocarbons calculated as gasoline.

MTBE = Methyl t-Butyl Ether

ND = Not detected at or above the laboratory detection limits.

ppm = Parts per Million, results reported in mg/Kg by the laboratory.

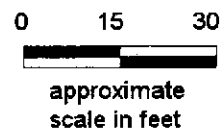
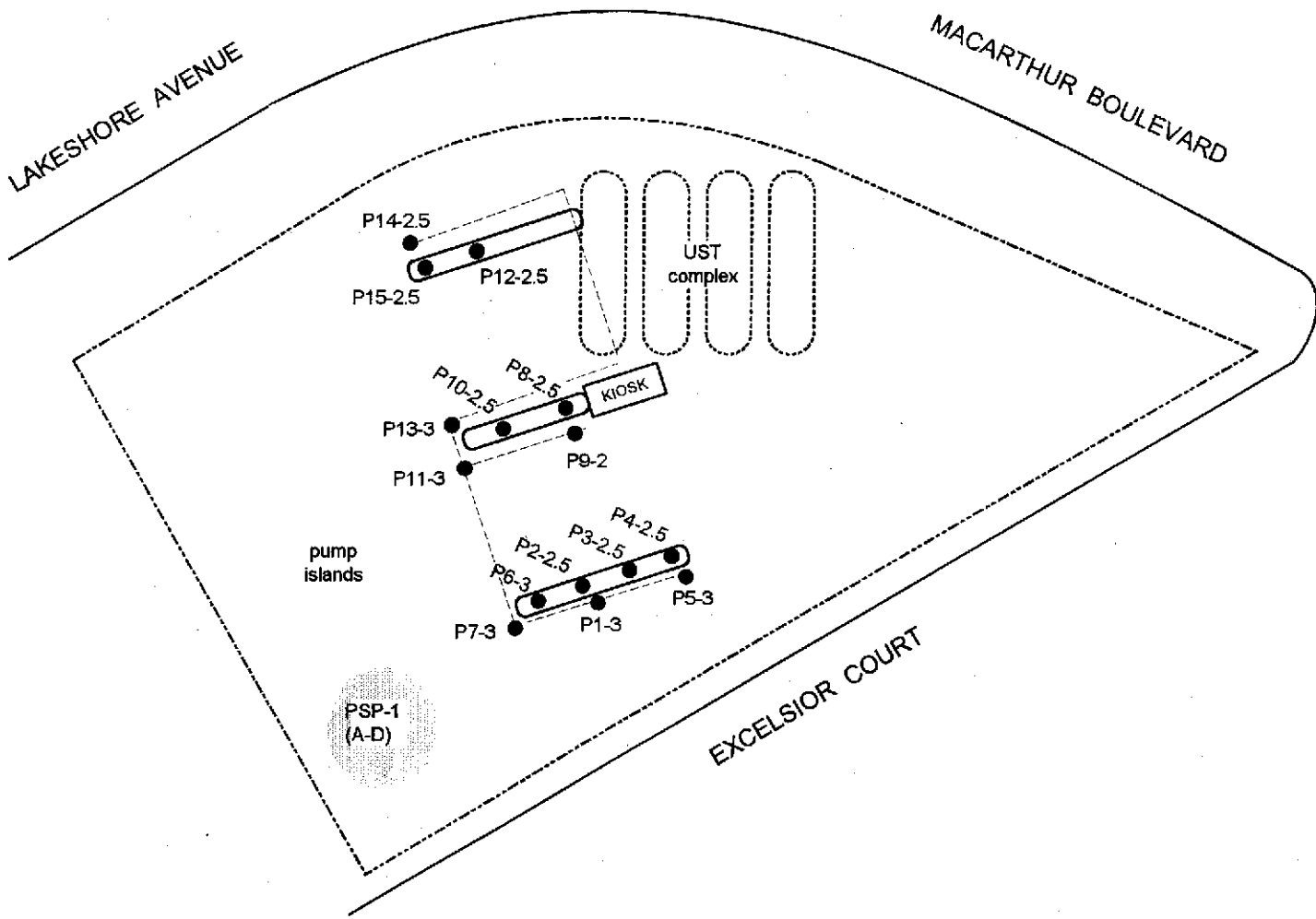
LAKESHORE AVENUE

MACARTHUR BOULEVARD

EXCELSIOR COURT

EXPLANATION

- UST Underground Storage Tank
- Product Line
- P1-25 Sample location and ID
- Soil stockpile location



SITE PLAN AND SAMPLE LOCATION MAP

Chevron Service Station No. 9-0121
3026 Lakeshore Avenue
Oakland, California

FIGURE

1

PROJECT NO.
9-0121

DATE:
9/96

DRAWN BY:
WTJ

BASE MAP
Robert H. Lee Associates - Site Plan 8/96

APPENDIX A

Chemical Analytical Reports and Chain-of-Custody forms



Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-0121, 0121-1
Lab Proj. ID: 9609051

Sampled: 09/03/96
Received: 09/04/96
Analyzed: see below

Attention: Jeff Monroe

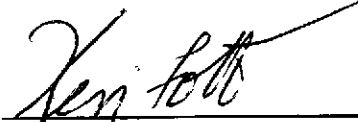
Reported: 09/11/96

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609051-01 Sample Desc: SOLID,P1-3				
Lead	mg/Kg	09/06/96	5.0	18
Lab No: 9609051-02 Sample Desc: SOLID,P2-2				
Lead	mg/Kg	09/06/96	5.0	12
Lab No: 9609051-03 Sample Desc: SOLID,P3-2.5				
Lead	mg/Kg	09/06/96	5.0	25
Lab No: 9609051-04 Sample Desc: SOLID,P4-2.5				
Lead	mg/Kg	09/06/96	5.0	28
Lab No: 9609051-05 Sample Desc: SOLID,P5-3				
Lead	mg/Kg	09/06/96	5.0	14
Lab No: 9609051-06 Sample Desc: SOLID,P6-3				
Lead	mg/Kg	09/06/96	5.0	6.6
Lab No: 9609051-07 Sample Desc: SOLID,P7-3				
Lead	mg/Kg	09/06/96	5.0	8.0

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





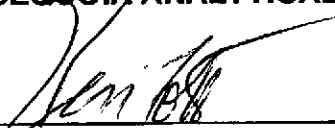
Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Lab Proj. ID: 9609051	Sampled: 09/03/96 Received: 09/04/96 Analyzed: see below Reported: 09/11/96
Attention: Jeff Monroe		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609051-08 Sample Desc: SOLID,P8-2.5				
Lead	mg/Kg	09/06/96	5.0	20
Lab No: 9609051-09 Sample Desc: SOLID,P9-2				
Lead	mg/Kg	09/06/96	5.0	13
Lab No: 9609051-10 Sample Desc: SOLID,P10-2.5				
Lead	mg/Kg	09/06/96	5.0	52
Lab No: 9609051-11 Sample Desc: SOLID,P11-3				
Lead	mg/Kg	09/06/96	5.0	15
Lab No: 9609051-12 Sample Desc: SOLID,P12-2.5				
Lead	mg/Kg	09/06/96	5.0	20
Lab No: 9609051-13 Sample Desc: SOLID,P13-3				
Lead	mg/Kg	09/06/96	5.0	36
Lab No: 9609051-14 Sample Desc: SOLID,P14-2.5				
Lead	mg/Kg	09/06/96	5.0	19

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Lab Proj. ID: 9609051	Sampled: 09/03/96 Received: 09/04/96 Analyzed: see below Reported: 09/11/96
Attention: Jeff Monroe		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609051-15 Sample Desc : SOLID,P15-2.5				
Lead	mg/Kg	09/06/96	5.0	44

Analytes reported as N.D. were not present above the stated limit of detection.

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Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P1-3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-01	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
 Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	75

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
 Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P2-2 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-02	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
Attention: Jeff Monroe		

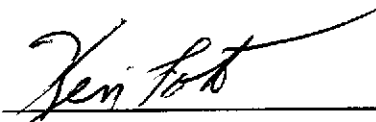
QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	N.D.
Benzene	0.0050	N.D.
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	80

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405 Attention: Jeff Monroe	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P3-2.5 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-03	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/09/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.63
Benzene	0.0050	0.0056
Toluene	0.0050	N.D.
Ethyl Benzene	0.0050	N.D.
Xylenes (Total)	0.0050	0.0050
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	106

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments	Client Proj. ID: Chevron 9-0121, 0121-1	Sampled: 09/03/96
P.O. Box 2554	Sample Descript: P4-2.5	Received: 09/04/96
Santa Rosa, CA 95405	Matrix: SOLID	Extracted: 09/05/96
Attention: Jeff Monroe	Analysis Method: 8015Mod/8020	Analyzed: 09/08/96
	Lab Number: 9609051-04	Reported: 09/11/96

QC Batch Number: GC090596BTEXEXB
 Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	50	710
Methyl t-Butyl Ether	1.2	15
Benzene	0.25	N.D.
Toluene	0.25	19
Ethyl Benzene	0.25	7.8
Xylenes (Total)	0.25	78
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	127

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
 Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P5-3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-05	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	50	110
Methyl t-Butyl Ether	1.2	N.D.
Benzene	0.25	N.D.
Toluene	0.25	N.D.
Ethyl Benzene	0.25	N.D.
Xylenes (Total)	0.25	0.46
Chromatogram Pattern: Unidentified HC		C9-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P6-3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-06	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	1.3
Methyl t-Butyl Ether	0.025	2.5
Benzene	0.0050	0.021
Toluene	0.0050	0.15
Ethyl Benzene	0.0050	0.033
Xylenes (Total)	0.0050	0.18
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	77

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P7-3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-07	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/09/96 Reported: 09/11/96
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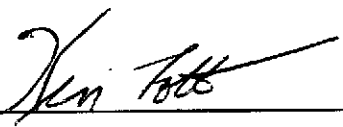
QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	1.0	N.D.
Methyl t-Butyl Ether	0.025	0.49
Benzene	0.0050	N.D.
Toluene	0.0050	0.0071
Ethyl Benzene	0.0050	0.0063
Xylenes (Total)	0.0050	0.024
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	89

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Table with 3 columns: Client/Contact info, Sample Description, and Dates. Includes Touchstone Developments, Client Proj. ID: Chevron 9-0121, 0121-1, and dates from 09/03/96 to 09/11/96.

QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP07

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Main results table with columns: Analyte, Detection Limit mg/Kg, Sample Results mg/Kg, and % Recovery. Lists analytes like TPPH as Gas, Methyl t-Butyl Ether, Benzene, Toluene, Ethyl Benzene, Xylenes (Total), and Unidentified HC.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Handwritten signature of Kevin Follett.

Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P9-2 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-09	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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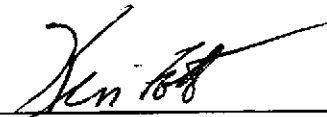
QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	100	1400
Methyl t-Butyl Ether	2.5	9.7
Benzene	0.50	N.D.
Toluene	0.50	22
Ethyl Benzene	0.50	5.4
Xylenes (Total)	0.50	5.0
Chromatogram Pattern: Gas & Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	307 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P10-2.5 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-10	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	25	410
Methyl t-Butyl Ether	0.62	N.D.
Benzene	0.12	8.3
Toluene	0.12	N.D.
Ethyl Benzene	0.12	4.8
Xylenes (Total)	0.12	2.4
Chromatogram Pattern: Gas & Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	246 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P11-3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-11	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18


Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	100	1600
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	25
Toluene	0.50	N.D.
Ethyl Benzene	0.50	25
Xylenes (Total)	0.50	26
Chromatogram Pattern: Gas & Unidentified HC		< C8

Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	227 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments	Client Proj. ID: Chevron 9-0121, 0121-1	Sampled: 09/03/96
P.O. Box 2554	Sample Descript: P12-2.5	Received: 09/04/96
Santa Rosa, CA 95405	Matrix: SOLID	Extracted: 09/05/96
Attention: Jeff Monroe	Analysis Method: 8015Mod/8020	Analyzed: 09/08/96
	Lab Number: 9609051-12	Reported: 09/11/96

QC Batch Number: GC090596BTEXEXB
 Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	200	2200
Methyl t-Butyl Ether	5.0	N.D.
Benzene	1.0	28
Toluene	1.0	N.D.
Ethyl Benzene	1.0	23
Xylenes (Total)	1.0	12
Chromatogram Pattern: Gas & Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	162 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
 Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P13-3 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-13	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	25	290
Methyl t-Butyl Ether	0.62	N.D.
Benzene	0.12	6.1
Toluene	0.12	4.0
Ethyl Benzene	0.12	2.1
Xylenes (Total)	0.12	1.3
Chromatogram Pattern: Gas & Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	289 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P14-2.5 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-14	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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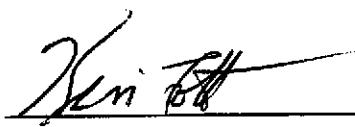
QC Batch Number: GC090596BTEXEXB
 Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	200	2500
Methyl t-Butyl Ether	5.0	N.D.
Benzene	1.0	40
Toluene	1.0	20
Ethyl Benzene	1.0	27
Xylenes (Total)	1.0	76
Chromatogram Pattern: Gas & Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	156 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Sample Descript: P15-2.5 Matrix: SOLID Analysis Method: 8015Mod/8020 Lab Number: 9609051-15	Sampled: 09/03/96 Received: 09/04/96 Extracted: 09/05/96 Analyzed: 09/08/96 Reported: 09/11/96
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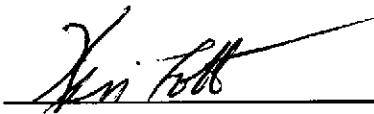
QC Batch Number: GC090596BTEXEXB
Instrument ID: GCHP18

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	50	1000
Methyl t-Butyl Ether	1.2	N.D.
Benzene	0.25	23
Toluene	0.25	N.D.
Ethyl Benzene	0.25	13
Xylenes (Total)	0.25	3.0
Chromatogram Pattern: Gas & Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	319 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Kevin Follett
Project Manager





Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405
Attention: Jeff Monroe

Client Proj. ID: Chevron 9-0121, 0121-1

Lab Proj. ID: 9609051

Received: 09/04/96

Reported: 09/11/96

LABORATORY NARRATIVE

TPPH note: sample 9609051-04 was diluted 50 fold.
sample 9609051-05 was diluted 50 fold.
sample 9609051-08 was diluted 300 fold.
sample 9609051-09 was diluted 100 fold.
sample 9609051-10 was diluted 25 fold.
sample 9609051-11 was diluted 100 fold.
sample 9609051-12 was diluted 200 fold.
sample 9609051-13 was diluted 25 fold.
sample 9609051-14 was diluted 200 fold.
sample 9609051-15 was diluted 50 fold.

SEQUOIA ANALYTICAL

Kevin Follett
Project Manager





Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405 Attention: Jeff Monroe	Client Project ID: Chevron 9-0121, 0121-1 Matrix: Solid Work Order #: 9609051 01-15	Reported: Sep 11, 1996
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC090596BTEXEXB	GC090596BTEXEXB	GC090596BTEXEXB	GC090596BTEXEXB
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	Porter	Porter	Porter	Porter
MS/MSD #:	960819006	960819006	960819006	960819006
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/5/96	9/5/96	9/5/96	9/5/96
Analyzed Date:	9/5/96	9/5/96	9/5/96	9/5/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
Result:	0.17	0.17	0.17	0.50
MS % Recovery:	85	85	85	83
Dup. Result:	0.17	0.17	0.17	0.49
MSD % Recov.:	85	85	85	82
RPD:	0.0	0.0	0.0	2.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK090596	BLK090596	BLK090596	BLK090596
Prepared Date:	9/5/96	9/5/96	9/5/96	9/5/96
Analyzed Date:	9/5/96	9/5/96	9/5/96	9/5/96
Instrument I.D.#:	GCHP22	GCHP22	GCHP22	GCHP22
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
LCS Result:	0.19	0.19	0.19	0.56
LCS % Recov.:	95	95	95	93

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kevin Follett
Kevin Follett
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9609051.TTT <1>





Touchstone Developments Client Project ID: Chevron 9-0121, 0121-1
 P.O. Box 2554 Matrix: Solid
 Santa Rosa, CA 95405 Work Order #: 9609051 01-15 Reported: Sep 11, 1996
 Attention: Jeff Monroe

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0906966010MDE	ME0906966010MDE	ME0906966010MDE	ME0906966010MDE
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	960905101	960905101	960905101	960905101
Sample Conc.:	0.60	N.D.	41	80
Prepared Date:	9/6/96	9/6/96	9/6/96	9/6/96
Analyzed Date:	9/6/96	9/6/96	9/6/96	9/6/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	110	93	140	150
MS % Recovery:	109	93	99	70
Dup. Result:	110	95	140	160
MSD % Recov.:	109	93	99	80
RPD:	0.0	2.1	0.0	6.4
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	BLK090696	BLK090696	BLK090696	BLK090696
Prepared Date:	9/6/96	9/6/96	9/6/96	9/6/96
Analyzed Date:	9/6/96	9/6/96	9/6/96	9/6/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	110	96	100	100
LCS % Recov.:	110	96	100	100

MS/MSD				
LCS	80-120	80-120	80-120	80-120
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kevin Foillett
 Kevin Foillett
 Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9609051.TTT <2>



Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0121
 Facility Address 3026 Lakeshore Ave, Oakland
 Consultant Project Number 0121-1
 Consultant Name Touchstone Developments
 Address PO Box 2554 Santa Rosa, CA
 Project Contact (Name) Jeff Monroe
 (Phone) 5388818 (Fax Number) 5388812

Chevron Contact (Name) Rina Krakovsky
 (Phone) 510 842 9500
 Laboratory Name Sequoia
 Laboratory Release Number 4503021
 Samples Collected by (Name) Jeff Monroe
 Collection Date 9-3-96
 Signature Jeff Monroe

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks							
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Hf (ICAP or AA)	MTBE	Lead								
P1-3	1	1	S	D	10:20		Yes	X																	
P2-2	2				10:22																				
P3-2.5	3				10:25																				
P4-2.5	4				10:30																				
P5-3	5				10:32																				
P6-3	6				10:35																				
P7-3	7				10:38																				
P8-2.5	8				10:40																				
P9-2	9				10:45																				
P10-2.5	10				10:50																				
P11-3	11				10:55																				
P12-2.5	12				11:00																				
P13-3	13				11:05																				
P14-2.5	14				11:10																				
P15-2.5	15				11:15																				

9609051
Remarks

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)	Organization	Date/Time	

COC-1.0mg/03 8/11/96



Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Lab Proj. ID: 9609034	Sampled: 09/04/96 Received: 09/04/96 Analyzed: see below Reported: 09/09/96
Attention: Jeff Monroe		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609034-01 Sample Desc : SOIL,PSP-1 (a-d) comp				
Lead	mg/Kg	09/05/96	5.0	55

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager





Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405

Client Proj. ID: Chevron 9-0121, 0121-1
Sample Descript: PSP-1 (a-d) comp
Matrix: SOIL
Analysis Method: 8015Mod/8020
Lab Number: 9609034-01

Sampled: 09/04/96
Received: 09/04/96
Extracted: 09/04/96
Analyzed: 09/06/96
Reported: 09/09/96

QC Batch Number: GC090496BTEXEXA
Instrument ID: GCHP7

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit mg/Kg	Sample Results mg/Kg
TPPH as Gas	100	1000
Benzene	0.50	3.3
Toluene	0.50	3.0
Ethyl Benzene	0.50	8.4
Xylenes (Total)	0.50	4.8
Chromatogram Pattern:		Gas
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Kevin Follett
Project Manager





Sequoia
Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405
Attention: Jeff Monroe

Client Proj. ID: Chevron 9-0121, 0121-1

Lab Proj. ID: 9609034

Received: 09/04/96

Reported: 09/09/96

LABORATORY NARRATIVE

TPPH note: sample 9609034-01 was diluted 100 fold.

SEQUOIA ANALYTICAL

Kevin Follett
Project Manager





Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405
Attention: Jeff Monroe

Client Project ID: Chevron 9-0121, 0121-1
Matrix: Solid

Work Order #: 9609034 01

Reported: Sep 9, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC090496BTEXEXA	GC090496BTEXEXA	GC090496BTEXEXA	GC090496BTEXEXA
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	Porter	Porter	Porter	Porter
MS/MSD #:	960919002	960919002	960919002	960919002
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/4/96	9/4/96	9/4/96	9/4/96
Analyzed Date:	9/4/96	9/4/96	9/4/96	9/4/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
Result:	0.23	0.21	0.20	0.63
MS % Recovery:	115	105	100	105
Dup. Result:	0.24	0.22	0.20	0.65
MSD % Recov.:	120	110	100	92
RPD:	4.3	4.7	0.0	14
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK090496	BLK090496	BLK090496	BLK090496
Prepared Date:	9/4/96	9/4/96	9/4/96	9/4/96
Analyzed Date:	9/4/96	9/4/96	9/4/96	9/4/96
Instrument I.D.#:	GCHP18	GCHP18	GCHP18	GCHP18
Conc. Spiked:	0.20 mg/Kg	0.20 mg/Kg	0.20 mg/Kg	0.60 mg/Kg
LCS Result:	0.24	0.22	0.20	0.64
LCS % Recov.:	120	110	100	107

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kevin Follett
Kevin Follett
Project Manager

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9609034.TTT <1>





Touchstone Developments	Client Project ID: Chevron 9-0121, 0121-1	
P.O. Box 2554	Matrix: Solid	
Santa Rosa, CA 95405		
Attention: Jeff Monroe	Work Order #: 9609034 01	Reported: Sep 9, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0905966010MDE	ME0905966010MDE	ME0905966010MDE	ME0905966010MDE
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3050	EPA 3050	EPA 3050	EPA 3050

Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell
MS/MSD #:	960907601	960907601	960907601	960907601
Sample Conc.:	N.D.	N.D.	4.2	4.3
Prepared Date:	9/5/96	9/5/96	9/5/96	9/5/96
Analyzed Date:	9/5/96	9/5/96	9/5/96	9/5/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
Result:	98	94	100	100
MS % Recovery:	98	94	96	96
Dup. Result:	100	96	100	100
MSD % Recov.:	100	96	96	96
RPD:	2.0	2.1	0.0	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	BLK090596	BLK090596	BLK090596	BLK090596
Prepared Date:	9/5/96	9/5/96	9/5/96	9/5/96
Analyzed Date:	9/5/96	9/5/96	9/5/96	9/5/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	100 mg/Kg	100 mg/Kg	100 mg/Kg	100 mg/Kg
LCS Result:	100	97	100	100
LCS % Recov.:	100	97	100	100

MS/MSD				
LCS	80-120	80-120	80-120	80-120
Control Limits				

SEQUOIA ANALYTICAL

Kevin Follett
 Kevin Follett
 Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9609034.TTT <2>



Fax copy of Lab Report and COC to Chevron Contact: No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0121
 Facility Address 3026 Lakeside Ave, Oakland
 Consultant Project Number 0121-1
 Consultant Name Buckstone Developments
 Address PO Box 254 Santa Rosa, CA
 Project Contact (Name) Jeff Monroe
 707 (Phone) 538 8818 (Fax Number) 538 8812

Chevron Contact (Name) Rina Krakovsky
 (Phone) 510 842 7500
 Laboratory Name Sequerra
 Laboratory Release Number 4503021
 Samples Collected by (Name) Jeff Monroe
 Collection Date 9-5-96
 Signature Jeff Monroe

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks			
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	Total Pb					
<u>BP-1ad</u>	<u>45</u>	<u>1</u>	<u>S</u>	<u>C</u>	<u>11:30</u>		<u>Yes</u>	<u>X</u>									<u>X</u>			<u>48 hr</u>	<u>9609034</u>

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>9-4-96</u>	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time	Turn Around Time (Circle Choice) <input type="radio"/> 24 hrs. <input checked="" type="radio"/> <u>48 hrs.</u> <input type="radio"/> 6 Days <input type="radio"/> 10 Days <input type="radio"/> As Contracted
Relinquished By (Signature) <u>[Signature]</u>	Organization	Date/Time	Received By (Signature) <u>[Signature]</u>	Organization	Date/Time	
Relinquished By (Signature) <u>[Signature]</u>	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>9/4/96</u>	

COC-3.046/03 9/1/96

1A-



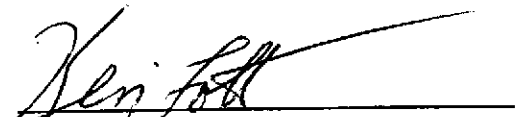
Touchstone Developments P.O. Box 2554 Santa Rosa, CA 95405	Client Proj. ID: Chevron 9-0121, 0121-1 Lab Proj. ID: 9609203	Sampled: 09/04/96 Received: 09/04/96 Analyzed: see below Reported: 09/09/96
Attention: Jeff Monroe		

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9609203-01 Sample Desc : LIQUID,PSP-1 (a-d) Comp				
Lead: STLC Extraction	mg/L	09/09/96	0.10	1.3

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


 Kevin Follett
 Project Manager





Touchstone Developments
P.O. Box 2554
Santa Rosa, CA 95405
Attention: Jeff Monroe

Client Project ID: Chevron 9-0121, 0121-1
Matrix: Liquid

Work Order #: 9609203 01

Reported: Sep 10, 1996

QUALITY CONTROL DATA REPORT - STLC

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0909966010MDB	ME0909966010MDB	ME0909966010MDB	ME0909966010MDB
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010

Analyst:	R. Butler	R. Butler	R. Butler	R. Butler
MS/MSD #:	960819802	960819802	960819802	960819802
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/9/96	9/9/96	9/9/96	9/9/96
Analyzed Date:	9/9/96	9/9/96	9/9/96	9/9/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	1.0	1.0	1.0	1.0
MS % Recovery:	100	100	100	100
Dup. Result:	1.1	1.0	1.0	1.0
MSD % Recov.:	110	100	100	100
RPD:	9.5	0.0	0.0	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	BLK090996	BLK090996	BLK090996	BLK090996
Prepared Date:	9/9/96	9/9/96	9/9/96	9/9/96
Analyzed Date:	9/9/96	9/9/96	9/9/96	9/9/96
Instrument I.D.#:	MTJA2	MTJA2	MTJA2	MTJA2
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.0	1.0	0.99	0.99
LCS % Recov.:	100	100	99	99

MS/MSD LCS Control Limits	80-120	80-120	80-120	80-120
---------------------------------	--------	--------	--------	--------

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Kevin Follett
Kevin Follett
Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9609203.TTT <1>



Sequoia Analytical Relog Sheet

Reason for Relog: Client Request Login Correction Other: _____

CLIENT: Touchstone DATE RELOG: 9-6-96

PROJECT ID: Chr 0121-1 DATE DUE: 9-9-96

PROJ. MANAGER: Follett DATE SAMPLED: 9-3-96

MATRIX: Liquid Solid Other

PREVIOUSLY LOGGED IN SAMPLES

TAT Change status to: 10Day 7Day 5Day 3Day 2Day 1Day ASAP
Change status as of: Date: 9-9-96 Time: _____

CHANGE ANALYSIS RERUN

Cancel Analysis	<input type="checkbox"/>	Redigest & Reanalyze	<input type="checkbox"/>
Add to this work order	<input type="checkbox"/>	Re-extract & Reanalyze	<input type="checkbox"/>
Create new work order	<input checked="" type="checkbox"/>	Reanalyze Only	<input type="checkbox"/>

New work order #: 9609203 Assign new sample #:

Sample Number	Analysis
<u>9609034 - 01</u>	<u>STLC Lead</u>

SAMPLES ON HOLD

Add analyses to existing work order TAT _____ New work order #:

Create a new work order

Sample Description	Analyses

Client Authorization (person/date/time): Jeff Manna 9-6-96 @ 10:10

Project Manager: Xenith

Fax copy of Lab Report and COC to Chevron Contact: No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-0121
Facility Address 3026 Lakeside Ave, Oakland
Consultant Project Number 0121-1
Consultant Name Buckstone Developments
Address 2554 Santa Rosa, CA
Project Contact (Name) Jeff Monroe
707 (Phone) 5388818 (Fax Number) 5388812

Chevron Contact (Name) Rina Kravtsovsky
(Phone) 510 842 9500
Laboratory Name Sequonia
Laboratory Release Number 4503021
Samples Collected by (Name) Jeff Monroe
Collection Date 9-5-96
Signature Jeff Monroe

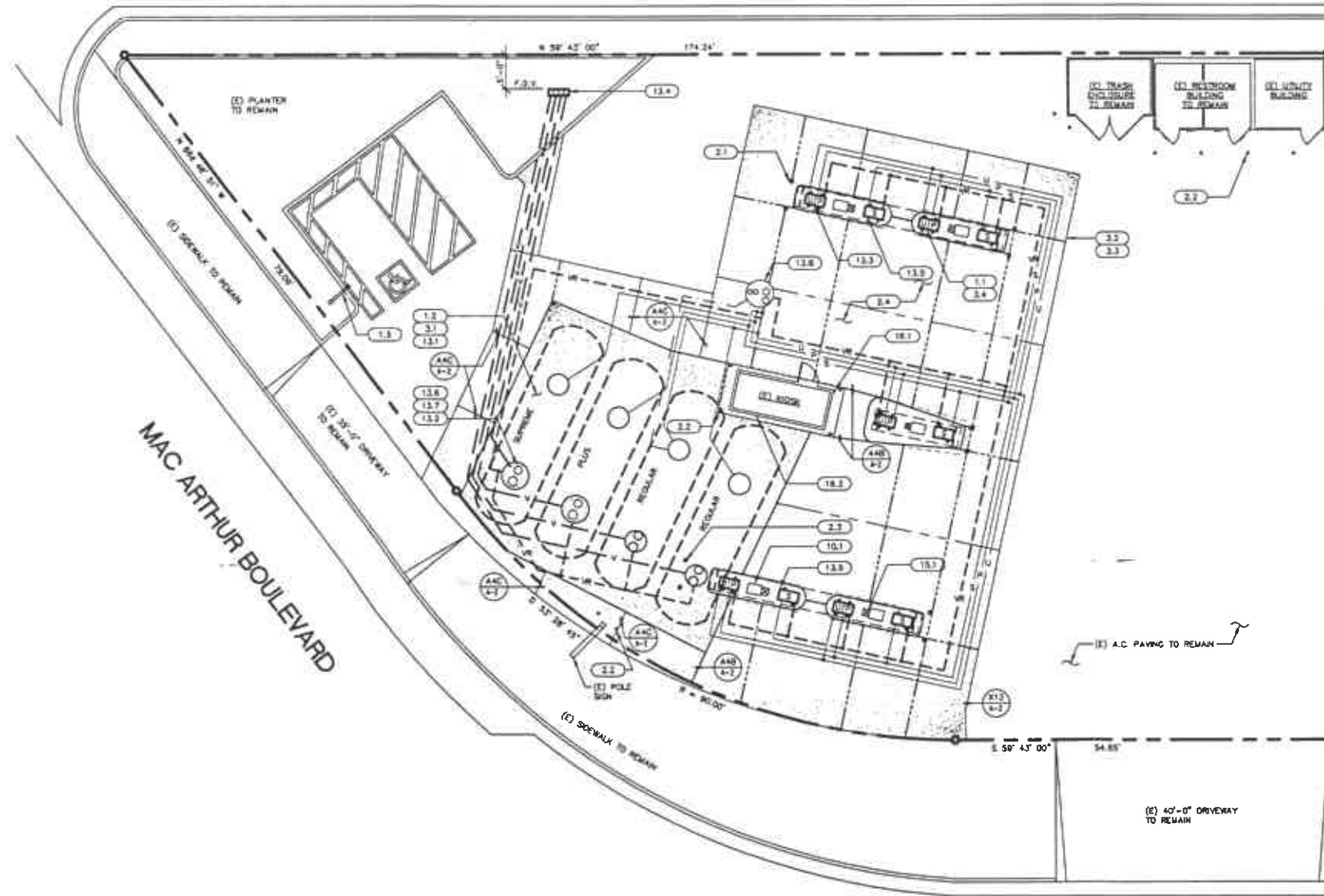
Sample Number	Lab Sample Number	Number of Containers	Media S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks	
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)				
<u>BP-102</u>		<u>4</u>	<u>S</u>	<u>C</u>	<u>11:30</u>		<u>Yes</u>	<u>X</u>										<u>48hr</u>	<u>9609034</u>

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>[Signature]</u>	Date/Time <u>9-4-96</u>	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice) 24 Hrs. <u>48 Hrs.</u> 6 Days 10 Days As Contracted
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>9/4/96</u>	

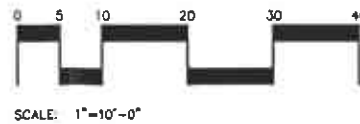
COC-3.DWG/03 9/1/96

1 A-D

EXCELSIOR COURT



LAKESHORE AVENUE



NOTES

SH/SP/TP/EE/NOTES

YARD NOTES

1. THE INFORMATION REGARDING THE SITE WAS OBTAINED FROM AN EXISTING CHEVRON U.S.A. PRODUCTS COMPANY GROUND AND GRADE PLAN. THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND VERIFY ALL SITE WORK TO BE DONE BEFORE COMMENCING WORK. IF SITE CONDITIONS OR DIMENSIONS DISAPPEAR WITH INFORMATION ON DRAWINGS OR CONFLICTS OCCUR, THE CONTRACTOR SHALL NOTIFY THE COMPANY REPRESENTATIVE BEFORE PROCEEDING WITH ANY WORK.
2. CONTRACTOR RESPONSIBLE FOR HIRING SURVEYOR TO STAKE PROPERTY LINES AND BUILDING LOCATIONS IF REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS OR MARKERS DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL MAKE PROVISIONS TO HAVE ALL EXISTING ON-SITE CONDUIT LINES AND UTILITY LINES ABANDONED AND REMOVE IF THEY ARE INTERFERING WITH PROPOSED CONSTRUCTION. RELOCATE EXISTING LINES THAT NEED TO BE IN OPERATION IF THEY INTERFERE WITH PROPOSED CONSTRUCTION. CAP ENDS OF EXISTING ABANDONED PIPES IN ACCORDANCE U.P.C.
4. CANOPY DRAINERS AND DRAIN LINES SHALL BE CLEANED AND WATER TESTED TO INSURE PROPER DRAINAGE.
5. FIRE EXTINGUISHERS WITH A MINIMUM RATING OF 2A:10 SHALL BE PROVIDED AND LOCATED BY CONTRACTOR SUCH THAT THEY ARE NOT MORE THAN 75 FEET FROM ANY DISPENSER OR FILL-PIPE OPENINGS (U.P.C. 703.02). CONSULT CHEVRON REPRESENTATIVE AND FIRE MUNICIPALITY REPRESENTATIVE FOR EXACT LOCATION AND INSTALLATION METHOD.
6. CONTRACTOR SHALL CLEAN ALL SURFACES OF GRANTS AND REPAINT IF NECESSARY (DO NOT PAINT EXISTING UNPAINTED MASONRY SURFACES).

PIPING NOTES

1. PIPING SHOWN SCHEMATICALLY. CONTRACTOR SHALL INSTALL PIPING PER FIELD CONDITIONS WITH CHEVRON REPRESENTATIVE'S APPROVAL.
2. ANY UNDERGROUND UTILITIES CROSSING SITE SHALL NOT CROSS OVER/UNDER PRODUCT VAPOR OR VENT PIPING. IF A CONFLICT IS ANTICIPATED NOTIFY CHEVRON REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
3. ALL PRODUCT VENT AND VAPOR RETURN LINES SHALL SLOPE 1/4" PER FOOT UPWARD FROM TANK (1/8" PER FOOT MAX).

PAVING NOTES

1. CONTRACTOR MUST VERIFY THAT SITE DRAINAGE IS NOT IMPAIRED BY NEW SITE IMPROVEMENTS. IN THE EVENT THAT A PROBLEM WITH THE DRAINAGE FLOW IS DISCOVERED THE CONTRACTOR SHALL NOTIFY THE COMPANY REPRESENTATIVE BEFORE PROCEEDING WITH ANY WORK IN THE PROBLEM AREA.
2. ALL NEW ASPHALTIC CONCRETE PAVING AND CONCRETE WORK SHALL MATCH THE EXISTING GRACES AT LIMITS OF WORK. DRAIN CONCRETE SLABS AWAY FROM FROM DISPENSERS AND BUILDINGS.
3. REPLACE EXISTING A.C. PAVING AND/OR CONCRETE AS REQUIRED DUE TO NEW CONSTRUCTION. INSTALL NEW PAVING PER CURA SPECIFICATIONS.
4. EXISTING A.C. PAVING AND/OR CONCRETE SHALL BE CUT TO A NEAT, STRAIGHT LINE (WHEN APPLICABLE). A.C. PAVING EXPOSED EDGES SHALL BE TACKED WITH DALLSON PRIOR TO PAVING.
5. NEW CONCRETE PAVING TO BE SEALED ENTIRELY WITH C & L COATING MIX-35 AQUA-CRETE. SEAL ALL CONCRETE JOINTS PER CHEVRON REPRESENTATIVE'S DIRECTION.

SITE PLAN ABBREVIATIONS AND LEGEND

SYMBOL/ABBREVIATION	DESCRIPTION
⊕	CENTER LINE
COL	COLUMN
(E)	EXISTING
EQ.	EQUAL
F.R.P.	FIBERGLASS REINFORCED PIPE
F.O.V.	FACE OF VENT
(N)	NEW
R	RADIUS
SHT.	SHEET
(S)	SIMILAR
(TYP.)	TYPICAL
[Dispenser Symbol]	DISPENSER
[Vent Riser Symbol]	VENT RISER
[Dashed Line]	(E) CONSTRUCTION TO BE REMOVED
[Solid Line]	(N) CONCRETE SLAB
[Line with U]	UNLEADED PRODUCT, DOUBLE WALL F.R.P., SLOPE TOWARD TANKS
[Line with P]	PLUS PRODUCT, DOUBLE WALL F.R.P., SLOPE TOWARD TANKS
[Line with S]	SUPREME PRODUCT, DOUBLE WALL F.R.P., SLOPE TOWARD TANKS
[Line with V]	VENT, SINGLE WALL F.R.P., SLOPE TOWARD TANKS
[Line with W]	VAPOR, SINGLE WALL F.R.P., SLOPE TOWARD TANKS
[Line with S]	SUCTON LINE
[Dotted Line]	ISOLATION JOINT, SEE DETAIL AAA ON SHEET A-2
[Dashed Line]	EXPANSION JOINT, SEE DETAIL AAB ON SHEET A-2
[Dotted Line]	CONTROL JOINT, SEE DETAIL AAC ON SHEET A-2

KEY NOTES

- 1.1 ISLANDS, DISPENSERS (TO BE REMOVED AND REINSTALLED, DOCUMENT LOCATION OF DISPENSERS PRIOR TO DEMOLITION) AND PETROLEUM PIPING.
- 1.2 FUEL STORAGE TANK SLAB
- 1.3 METAL PILE SIGN
- 2.1 4" SQ. STEEL GUARDPOST, SEE DETAIL K10 ON SHEET A-2 (TYP. OF 8)
- 2.2 REPLACE (E) GUARDPOST W/ (N) 4" SQ. STEEL GUARDPOST, SEE DETAIL D10 ON SHEET A-2 (TYP. OF 2 AT POLE SIGN, 8 AT RESTROOMS/TRASH ENCLOSURE AND 4 AROUND K008)
- 2.3 6" SQ. STEEL GUARDPOST WITH SPECIAL SPREAD FOOTING SEE DETAIL D7 ON SHEET A-2, SET TO CLEAR TANK FITTING AS SHOWN (TYP. OF 2)
- 2.4 THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING, REMOVAL, AND RESETTING OF ALL EXISTING MONITORING WELLS, MANHOLE CLEANOUTS, (OR OTHER STRUCTURES TO REMAIN) TO FINISH GRADE.
- 3.1 TANK SLAB, SEE SHEET F-4 FOR DETAILS AND JOINT LAYOUT.
- 3.2 SAWCUT (E) CONCRETE PAVEMENT AS DIRECTED BY CHEVRON ENGINEER FOR INSTALLATION OF (N) RPPM ISLANDS, CONTAINMENT BUMPS, CONDUITS AND MONITORING SYSTEM. CONSULT CHEVRON ENGINEER TO DETERMINE ACTUAL EXTENT.
- 3.3 (N) CONCRETE DRIVE SLAB, SEE DETAIL K13 ON SHEET A-2.
- 3.4 DISPENSER ISLANDS, SEE DETAILS A10 & D11, SHEET A-2.
- 10.1 (N) TRASH VALET (TYP. OF 3)
- 13.1 (E) 10,000 GALLON, 8" DIAMETER SINGLE WALL TYP. FUEL STORAGE TANK (TYP. OF 4) WITH (N) 1 1/2" H.P. TURBINE PUMP, SPILL CONTAINMENT, MONITOR SYSTEM & DOUBLE WALL PRODUCT PIPING. SEE F-SHEETS PRODUCT ORDER TO BE CHANGED AS SHOWN. DIESEL FUEL TO BE ELIMINATED.
- 13.2 CONTAINMENT SUMP AT FILL AND TURBINE END OF TANK WITH SUMP MONITORING.
- 13.3 RESET AT SAME LOCATION (E) HW 9 DISPENSER W/ (N) SUMP CONTAINMENT, PIT BOX AND MONITOR.
- 13.4 CONNECT (N) VENT LINES TO (E) RISERS BELOW GRADE, SEE DETAIL 2, SHT F-4.
- 13.5 RETROFIT (E) END PRODUCT HM 8 DISPENSER TO ONE PRODUCT HM 8 DISPENSER, ELIMINATE DIESEL (TYP. OF 2).
- 13.6 INSTALL DROP TUBE PROTECTION AT FILL OF (E) TANK (TYP. OF 4).
- 13.7 REPLACE (E) BALL FLOAT VALVES W/ (N) BALL FLOAT VALVES (TYP. OF 4 TANKS).
- 13.8 VAPOR PIT, SEE SHEET F-10.
- 15.1 CONNECT (E) CANOPY DOWNDROPS TO EXISTING DRAINS AS REQUIRED. MAINTAIN EXISTING SLOPE AND PIPE SIZE. SEE DETAIL D13 ON SHEET A-2.
- 16.1 (N) EMERGENCY PUMP SHUT-OFF, SEE SHEET E-1.
- 16.2 TANK OVERFILL AUDIBLE AND VISUAL ALARM, SEE SHEET E-1.

SITE PLAN

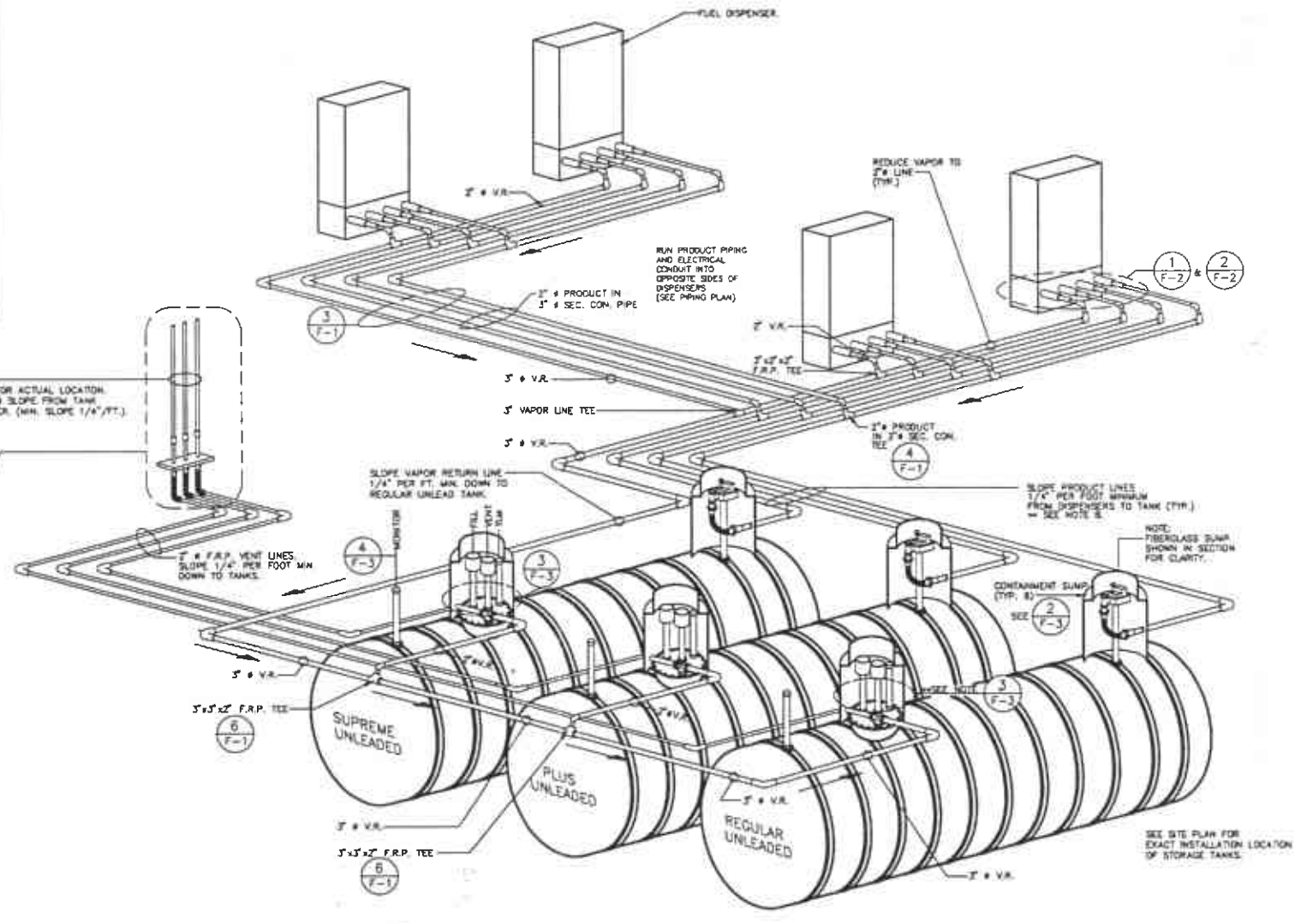
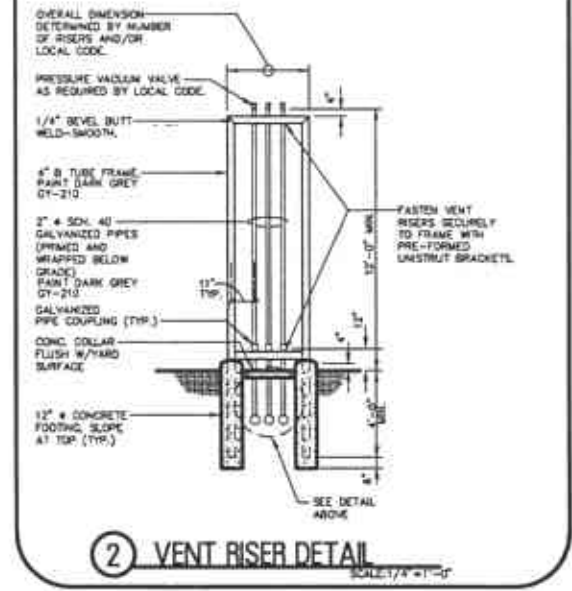
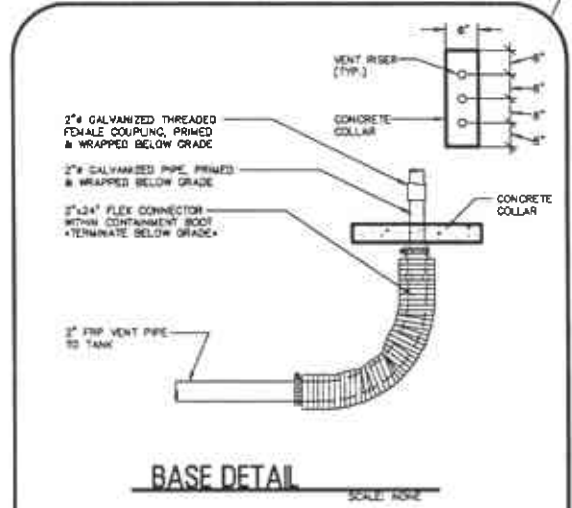
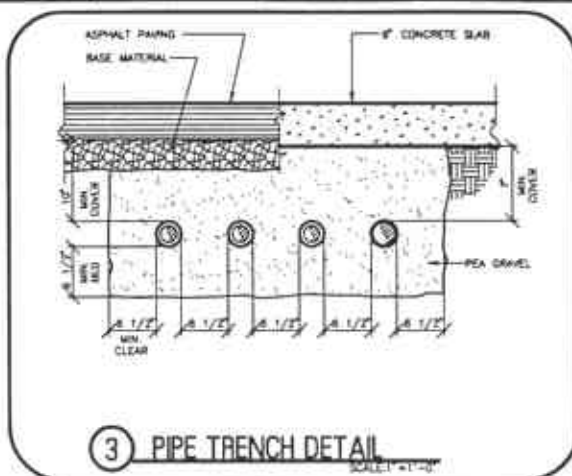
9-0121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA



ROBERT H. LEE & ASSOCIATES, INC.
ARCHITECTURE ENGINEERING ENVIRONMENTAL SERVICES
1127 NORTH WOODMILL BLVD. #200 PETERMAN CA 94618 (925) 763-1888
JOHN W. JOHNSON, ARCHITECT JAMES H. BAY, CIVIL ENGINEER

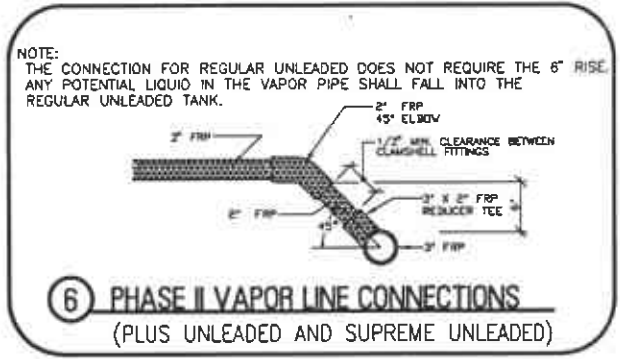
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PRELIMINARY				08.01
PLANNING				APRIL
SCHEMATIC				MAY 10, 10
GENERAL NOTES				SHEET
CONSTRUCTION				
Do not use drawings for construction unless initiated.				

A-1

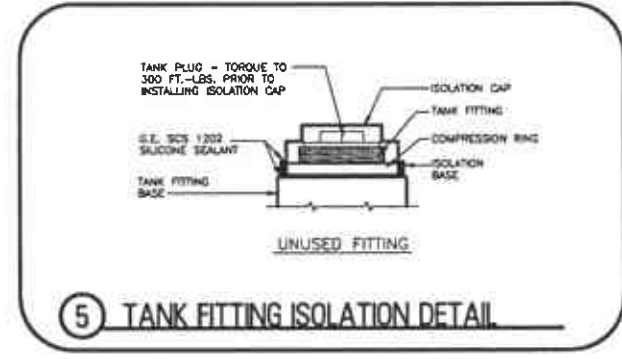


1 UNDERGROUND TANK & PIPING ISOMETRIC

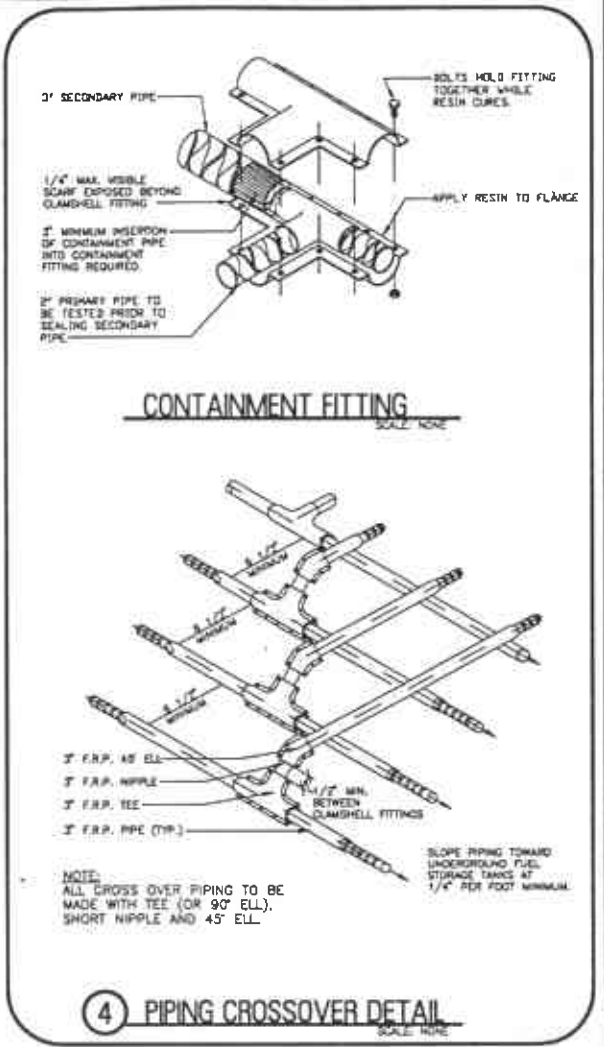
NOTE: ALL VAPOR RECOVERY LINES TO BE SECONDARILY CONTAINED



6 PHASE II VAPOR LINE CONNECTIONS (PLUS UNLEADED AND SUPREME UNLEADED)



5 TANK FITTING ISOLATION DETAIL



4 PIPING CROSSOVER DETAIL

- NOTES:
1. TYPICAL PIPING LAYOUT SHOWN FOR MULTI-PRODUCT DISPENSERS. SEE PLANS FOR SPECIFIC DISPENSER TYPE AND CONFIGURATION FOR THIS SITE.
 2. ALL PRODUCT LINES ARE TO BE SECONDARILY CONTAINED.
 3. EVERY TANK CONTAINMENT SUMP AND DISPENSER CONTAINMENT SUMP SHALL CONTAIN A LIQUID SENSING PROBE.
 4. DRAKE THE BOTTOM OF THE DISPENSERS TO INSURE WATER TIGHTNESS.
 5. PERPENDICULAR PENETRATION OF THE CONTAINMENT SUMPS ARE PREFERRED. 2\"/>
 - 6. SPARE ELECTRICAL CONDUITS MUST BE SEALED.
 - 7. SEE SHEET E-1 FOR ELECTRICAL CONDUIT LAYOUT.
 - 8. OBTAIN WRITTEN APPROVAL FROM CHEVRON FOR LESS THAN 1/4\"/>
 - 9. ALL STEEL TANK RISERS & FILL END ARE TO BE SCH. 40 GALVANIZED PIPE. PRIME AND WRAP ALL STEEL PIPING AND RISERS.
 - 10. ALL STEEL DISPENSER PIPING AND FITTINGS ARE TO BE SCH. 40 BLACK IRON. PRIME ALL BLACK IRON FITTINGS, PRIME AND WRAP STEEL PIPING AND RISERS.
 - 11. USE ALL SCH. 40 BLACK IRON PIPING AND FITTINGS FOR DIESEL INSTALLATIONS. PRIME AND WRAP ALL STEEL PIPING AND RISERS.

TANK + PIPING ISOMETRIC
PHASE I+II VAPOR RECOVERY

9-0121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA



ROBERT H. LEE & ASSOCIATES, INC.
ARCHITECTURE ENGINEERING ENVIRONMENTAL SERVICES
1127 NORTH WADSWELL BOULEVARD PETALUMA CA 94954 (707) 762-1880
JOHN R. JOHNSON, PROJECT MANAGER

PHASE	REVIEW	INITIALS	DATE	DATE	SCALE
PRELIMINARY				12/24/98	
PLANNING					AS SH.
STEEL BID					APRIL
BLDG PERMIT					
GENERAL BID					INL & 5041.10
PERMIT REVISED					SHEET
CONSTRUCTION					
DO NOT USE DRAWING FOR CONSTRUCTION UNLESS INDICATED					F-1

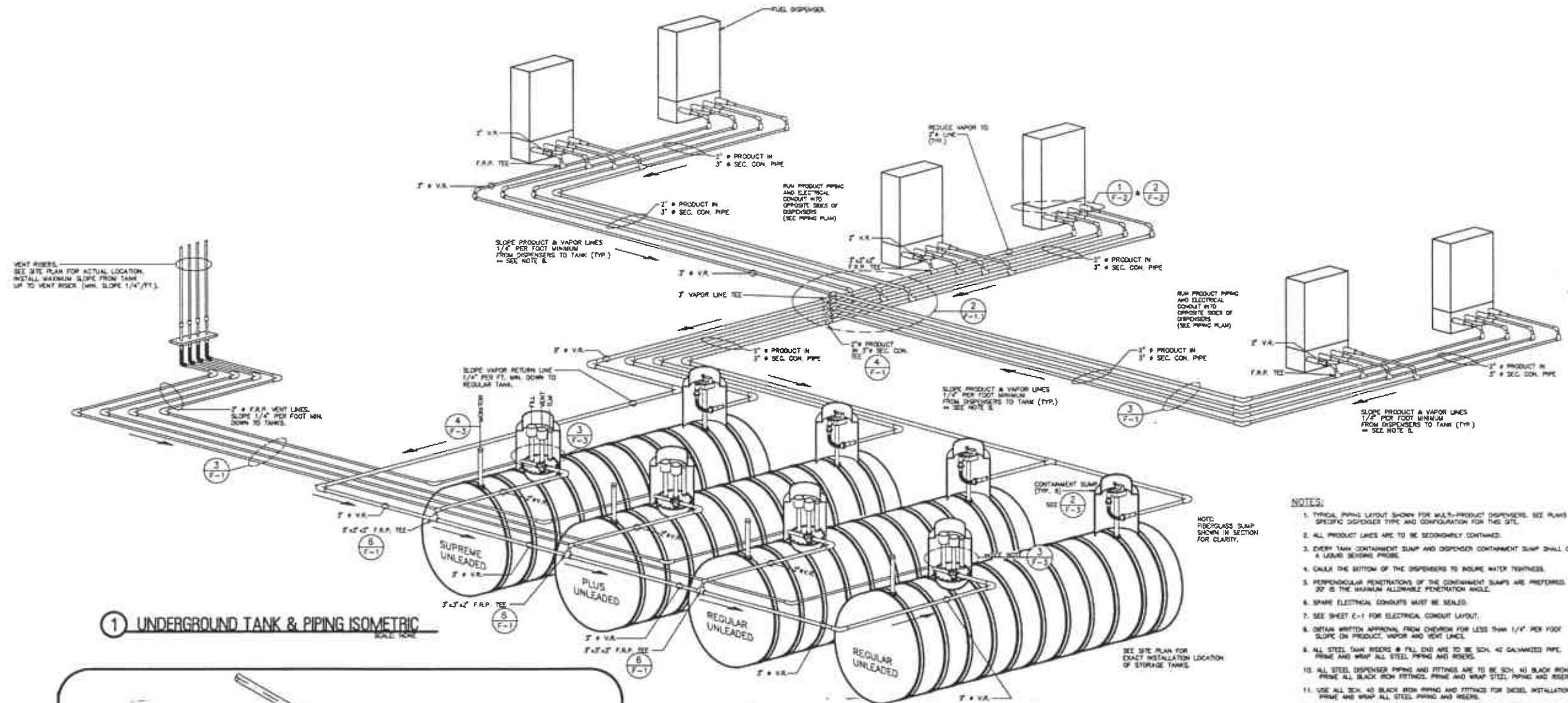
FOR REFERENCE ONLY

ALAMEDA COUNTY TYPICALS

User: rme:jrr

JUL 22, 1996 13:30 Scale: 1

DRAWING No. F:\CAD\BB41\TANKS\BB411F1 AREA 4



VENT RISERS
SEE SITE PLAN FOR ACTUAL LOCATION.
INSTALL MAXIMUM SLOPE FROM TANK
UP TO VENT RISER (MIN. SLOPE 1/4\"/>

2\"/>

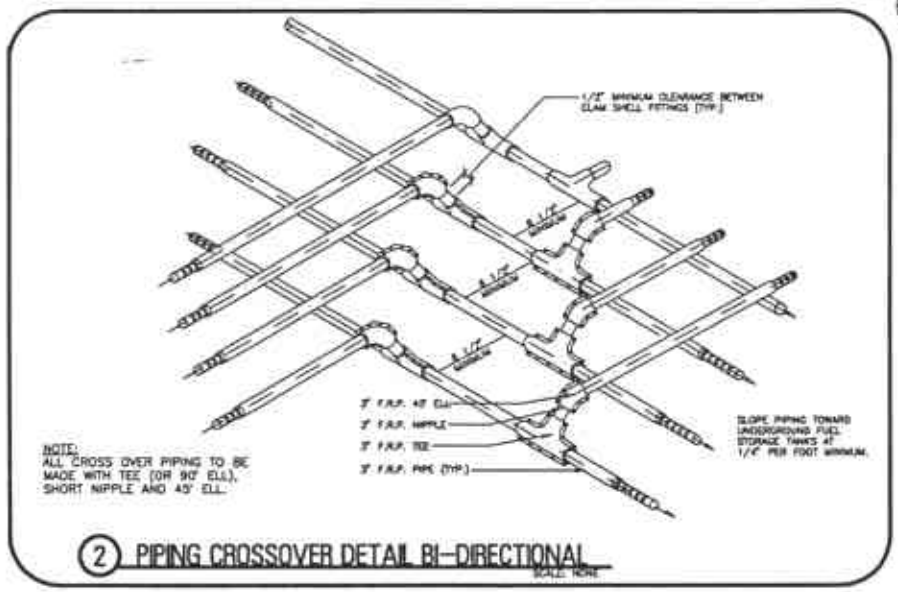
SLOPE PRODUCT & VAPOR LINES
1/4\"/>

SLOPE VAPOR RETURN LINE
1/4\"/>

SLOPE PRODUCT & VAPOR LINES
1/4\"/>

SLOPE PRODUCT & VAPOR LINES
1/4\"/>

1 UNDERGROUND TANK & PIPING ISOMETRIC
SCALE: 1/8\"/>



NOTE:
ALL CROSS OVER PIPING TO BE
MADE WITH TEE (OR 90\"/>

2 PIPING CROSSOVER DETAIL BI-DIRECTIONAL
SCALE: 1/8\"/>

- NOTES:
1. TYPICAL PIPING LAYOUT SHOWN FOR MULTI-PRODUCT DISPENSERS. SEE PLANS FOR SPECIFIC DISPENSER TYPE AND CONFIGURATION FOR THIS SITE.
 2. ALL PRODUCT LINES ARE TO BE SEISMICALLY CONTAINED.
 3. EVERY TANK CONTAINMENT SLUMP AND DISPENSER CONTAINMENT SLUMP SHALL CONTAIN A LIQUID SENSING PROBE.
 4. CALCULATE THE BOTTOM OF THE DISPENSERS TO INSURE WATER TIGHTNESS.
 5. PERPENDICULAR PENETRATIONS OF THE CONTAINMENT SLUMPS ARE PREFERRED. 20\"/>
 - 6. SPARE ELECTRICAL CONDUITS MUST BE SEALED.
 - 7. SEE SHEET E-1 FOR ELECTRICAL CONDUIT LAYOUT.
 - 8. OBTAIN WRITTEN APPROVAL FROM CHEVRON FOR LESS THAN 1/4\"/>
 - 9. ALL STEEL TANK RISERS & FILL ENDS ARE TO BE SCH. 40 GALVANIZED PIPE. PRIME AND WRAP ALL STEEL PIPING AND RISERS.
 - 10. ALL STEEL DISPENSER PIPING AND FITTINGS ARE TO BE SCH. 40 BLACK IRON. PRIME ALL BLACK IRON FITTINGS, PRIME AND WRAP STEEL PIPING AND RISERS.
 - 11. USE ALL SCH. 40 BLACK IRON PIPING AND FITTINGS FOR DIESEL INSTALLATIONS. PRIME AND WRAP ALL STEEL PIPING AND RISERS.
 - 12. FOR MANIFOLDED UNLEAD TANKS USING RED JACKET SLIDING-DOOR FUELING PUMPS INSTALL A "WATERPROOF" CHECK VALVE (#30-251) OR APPROVED EQUAL AT EACH UNLEAD PUMP DISCHARGE.

NOTE:
FIBERGLASS SLUMP
SHOWN IN SECTION
FOR CLARITY.

SEE SITE PLAN FOR
EXACT INSTALLATION
LOCATION
OF STORAGE TANKS.

EXISTING TANKS TO REMAIN
TANKS ARE SHOWN FOR REFERENCE ONLY

TANK + PIPING ISOMETRIC
MANIFOLDED w/VAPOR RECOVERY
9-0121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA



ROBERT H. LEE & ASSOCIATES, INC.
ARCHITECTURAL ENGINEERS CIVIL ENGINEERS
1121 NORTH WASHINGTON BOULEVARD PETALUMA, CA 94954 (707) 765-1888
JOHN W. JOHNSON, ARCHITECT JAMES H. RAY, CIVIL ENGINEER

REV.	REVISION	INITIAL	DATE	SHEET NO./TOTAL
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	PLANNING			
	DESIGN			
	CONSTRUCTION			
	DATE FOR USE DRAWING			
	DATE FOR CONSTRUCTION			

F-11

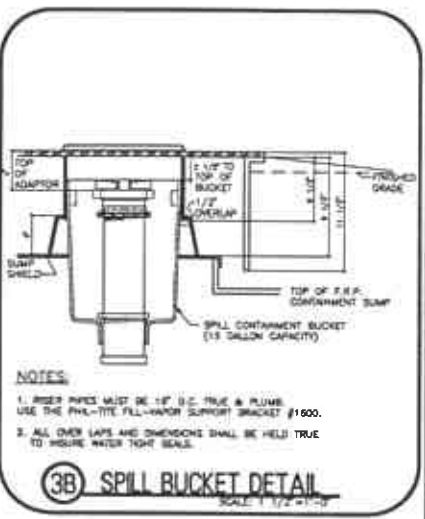
NUMIDA COUNTY TRENDS

Use: nom. RFR

Scale: 1

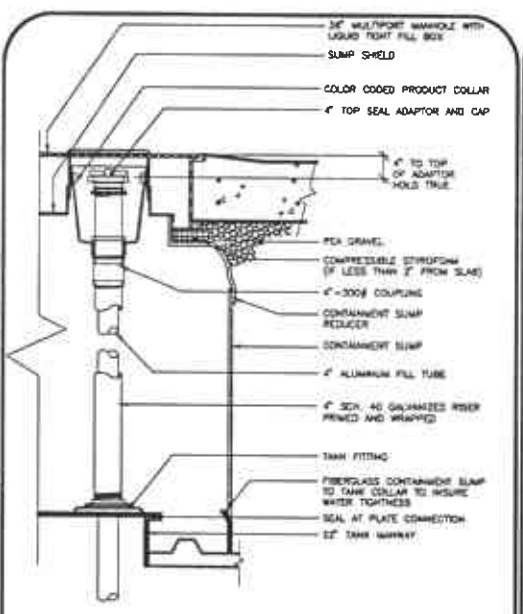
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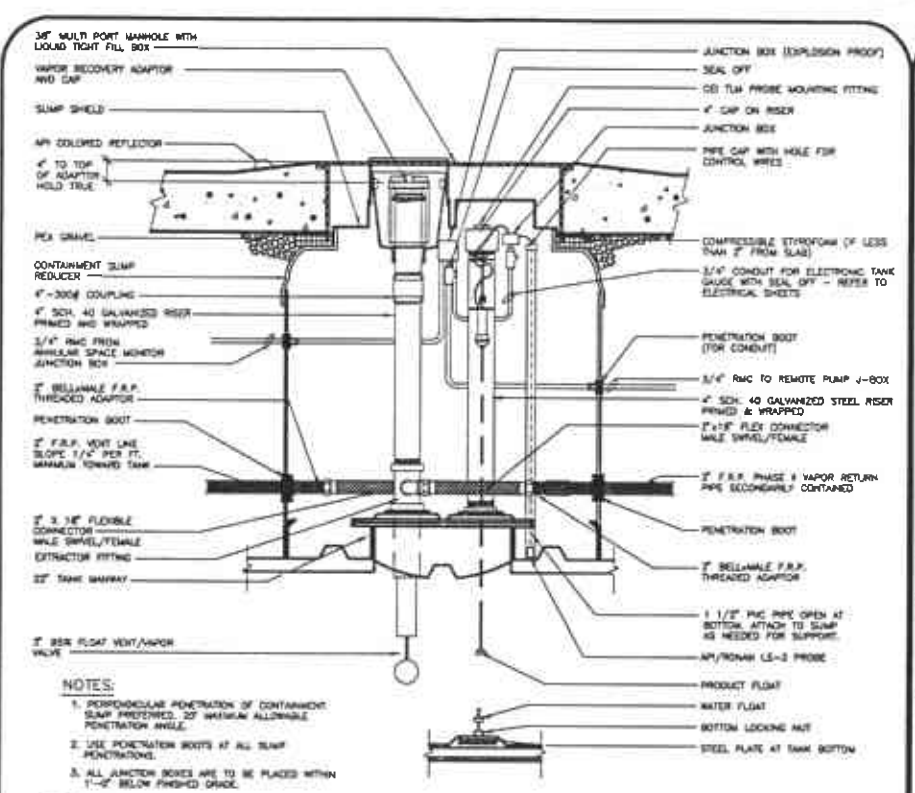
NOTES:
 1. RISER PIPES MUST BE 1/2\"/>

(3B) SPILL BUCKET DETAIL
 SCALE: 1/2\"/>



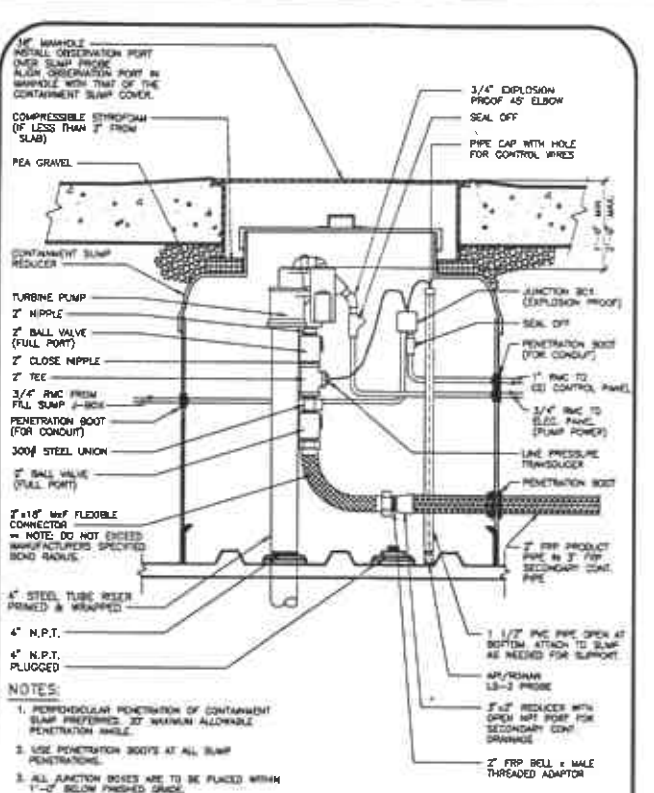
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 1. PERPENDICULAR PENETRATION OF CONTAINMENT SLUMP PREFERRED, 20\"/>

(3A) FILL DETAIL
 SCALE: 1/2\"/>



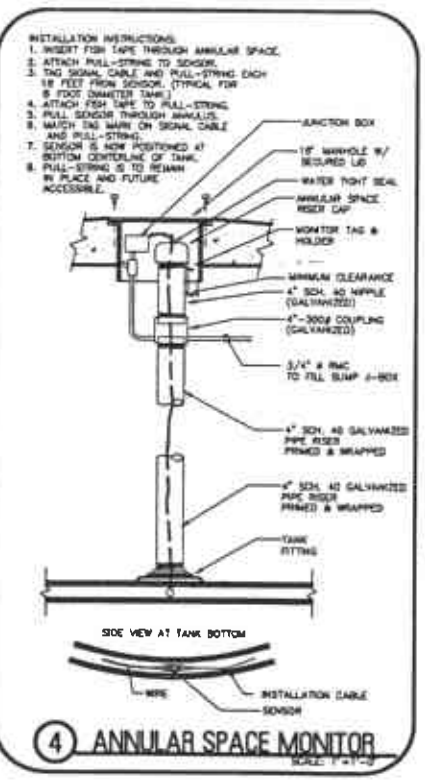
NOTES:
 1. PERPENDICULAR PENETRATION OF CONTAINMENT SLUMP PREFERRED, 20\"/>

(3) TLM PROBE, VENT & VAPOR DETAIL
 SCALE: 1/2\"/>

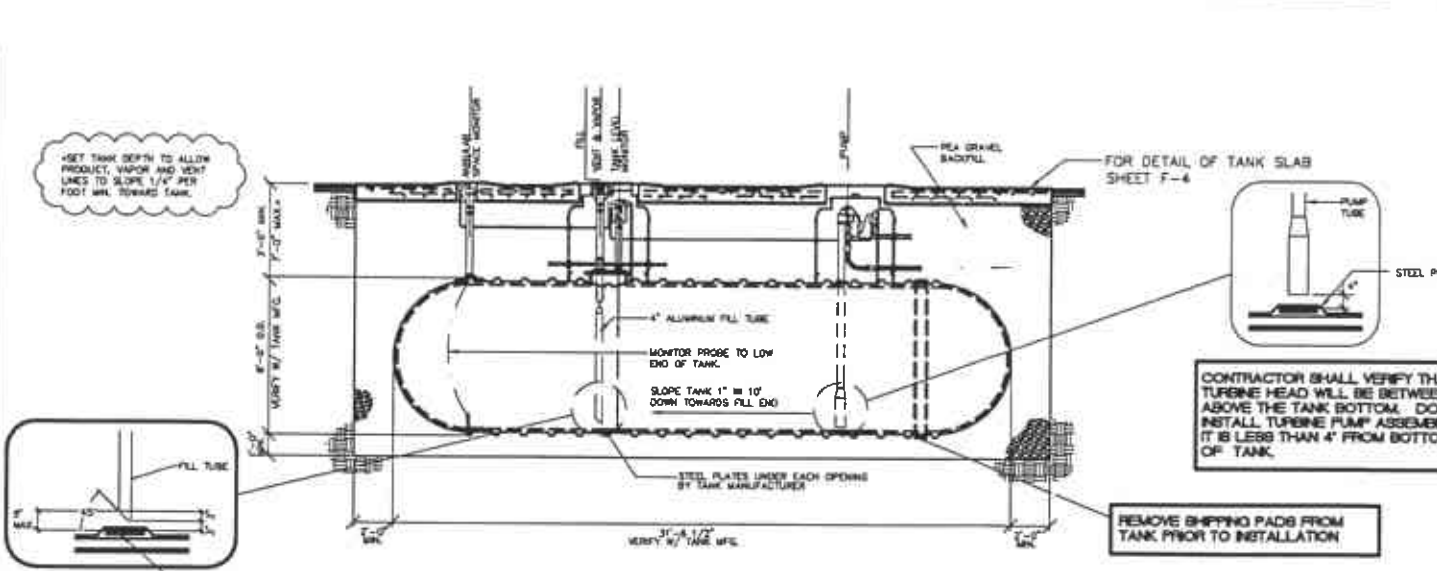


NOTES:
 1. PERPENDICULAR PENETRATION OF CONTAINMENT SLUMP PREFERRED, 20\"/>

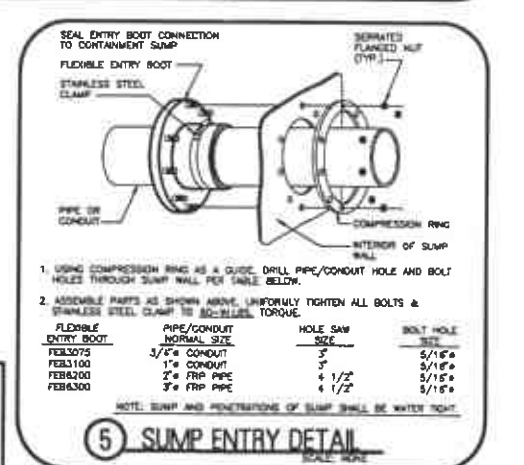
(2) REMOTE PUMP DETAIL
 SCALE: 1/2\"/>



(4) ANNULAR SPACE MONITOR
 SCALE: 1/2\"/>



(1) FIBERGLASS TANK & EXCAVATION SECTION
 SCALE: 1/2\"/>



1. USING COMPRESSION RING AS A GUIDE, DRILL PVC/CONDUIT HOLE AND BOLT HOLES THROUGH SUMP WALL PER TABLE BELOW.
2. ASSEMBLE PARTS AS SHOWN ABOVE, UNIFORMLY TIGHTEN ALL BOLTS & STAINLESS STEEL CLAMP TO 80-100 LB. TORQUE.

FLEXIBLE ENTRY BOOT	PIPE/CONDUIT NOMINAL SIZE	HOLE SAW SIZE	BOLT HOLE SIZE
FEB3075	3/4\"/>		

NOTE: SUMP AND PENETRATIONS OF SUMP SHALL BE WATER TIGHT.

(5) SUMP ENTRY DETAIL
 SCALE: 1/2\"/>

GENERAL NOTES:
 1. ALL GASOLINE TANK RISERS & FILL END TO BE SCHEDULE 40 GALVANIZED PIPING. SCHEDULE 40 BLACK IRON RISERS & FITTING SHALL BE USED FOR DIESEL TANK INSTALLATIONS.
 2. PRODUCT, VENT AND VAPOR LINE SIZE TO BE AS NOTED ON SHEET F-1 AND PIPING PLAN.
 3. ALL STEEL PIPE TO BE PRIMED AND WRAPPED, ALL PVC TO BE WRAPPED.
 4. SEE SITE PLAN FOR EXACT LOCATION OF PRODUCT TANKS.
 5. SEE SITE PLAN FOR VENT RISER LOCATION.
 6. J-BOX SHALL HAVE 2\"/>

FOR REFERENCE ONLY

SECTION + DETAILS
10k GAL. 8' + TANKS

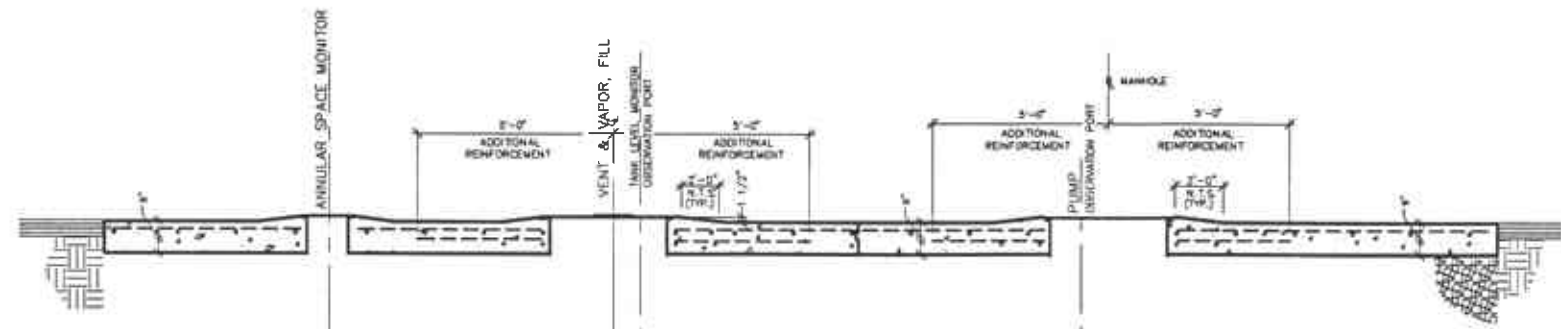
9-0121
 3026 LAKESHORE AVENUE
 OAKLAND, CALIFORNIA



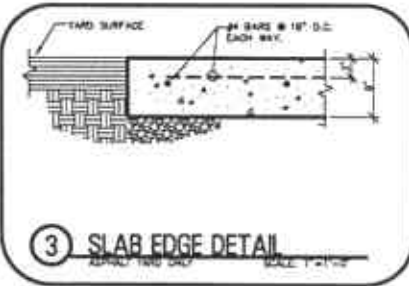
ROBERT H. LEE & ASSOCIATES, INC.
 ARCHITECTURE ENGINEERING ENVIRONMENTAL SCIENCES
 1130 NORTH BAYVIEW BLVD. SUITE 1000 PETALUMA, CA 94954 (707) 762-9882
 JOHN W. JOHNSON, PROJECT MANAGER JAMES H. BART, CIVIL ENGINEER

NO.	REVISION	INITIALS	DATE	DATE	ISSUED BY
1	PRELIMINARY				JR, BR
2	PLANNING				JR, BR
3	STEEL BR				JR, BR
4	SLAB PERMIT				JR, BR
5	GENERAL BR				JR, BR
6	CONSTRUCTION				JR, BR
7	AS NOTED				JR, BR

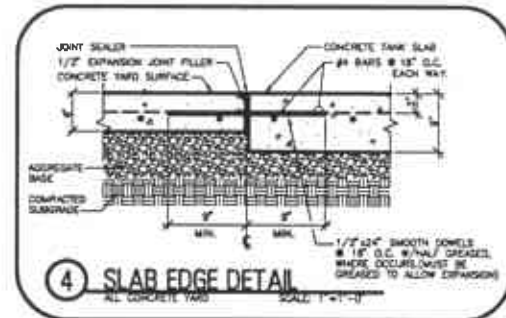
DATE: 02/22/95



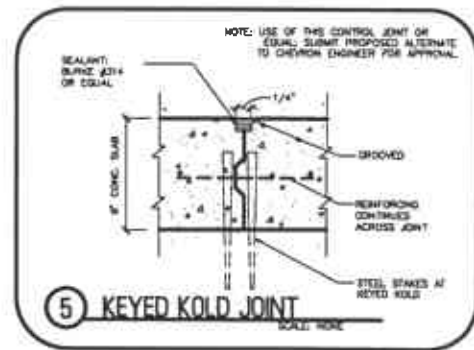
2 CONCRETE TANK SLAB SECTION SCALE 1/2"=1'-0"



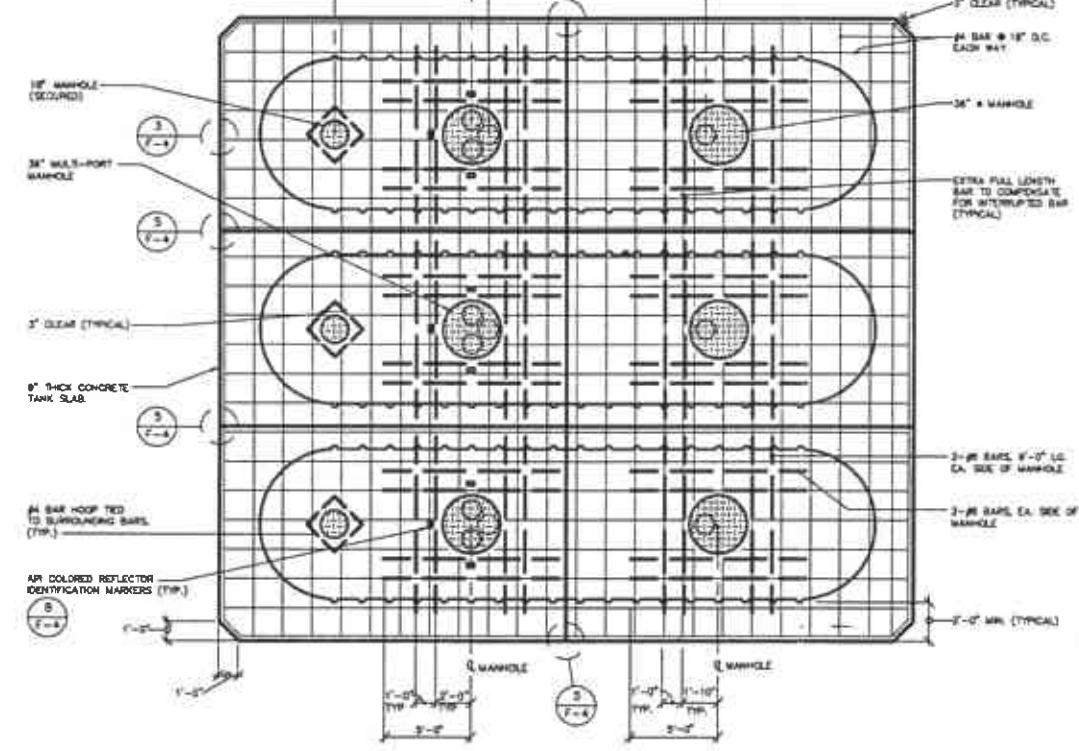
3 SLAB EDGE DETAIL SCALE 1/2"=1'-0"



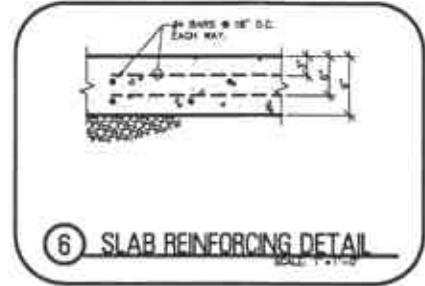
4 SLAB EDGE DETAIL SCALE 1/2"=1'-0"



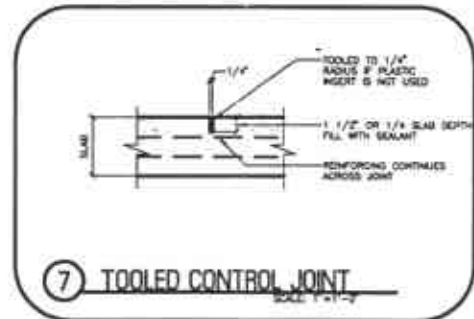
5 KEYED KOLD JOINT SCALE: NONE



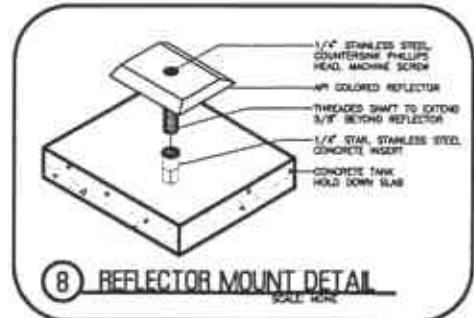
1 CONCRETE SLAB & REINFORCING PLAN SCALE 1/4"=1'-0"



6 SLAB REINFORCING DETAIL SCALE 1/2"=1'-0"



7 TOOLED CONTROL JOINT SCALE 1/2"=1'-0"



8 REFLECTOR MOUNT DETAIL SCALE: NONE

- GENERAL NOTES:**
1. ALL COVERS, SHEETS, AND SEALS TO BE IN PLACE AND WATER TIGHT.
 2. CONCRETE SLAB SHALL HAVE A HEAVY BROOK FINISH.
 3. CONCRETE SLAB TO BE SEALED.
 4. UPPER STEEL REBAR SHALL BE SUPPORTED BY 4" CHAIRS (DIMS).
 5. API COLORED REFLECTORS SHALL BE INSTALLED AT THE FULL END WHIMHOLE PERIMETER.

FOR REFERENCE ONLY

**SLAB PLAN, SECTION, + DETAILS
10K GAL. 8'+ TANKS**

9-0121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

ROBERT H. LEE & ASSOCIATES, INC.
ARCHITECTURE ENGINEERING ENVIRONMENTAL SERVICES
3117 NORTH BURNING BUSH DRIVE PETERSON CA 94608 TEL: 925-938-1000
JOHN W. JENSEN, ARCHITECT JAMES H. RAY, CIVIL ENGINEER

PREL. REVIEW	INITIAL	DATE	DATE
PRELIMINARY			04/18/94
PLANNING			04/20/94
DESIGN			04/20/94
CONSTRUCTION			04/20/94

SCALE: NONE

F-4

BILL OF MATERIALS - UNDERGROUND STORAGE TANK INSTALLATION

FURNISHED/INSTALLED BY	PART DESCRIPTION	DETAIL	MANUFACTURER AND PART NUMBER		QUANTITY REQUIRED	NOTES
			PREferred	ALTERNATE		
CHEVRON	TOP SEAL CAP		DPW 8347T-7085	UNIVERSAL 731-443		
	TOP SEAL ADAPTOR		DPW 8337-8078	UNIVERSAL 724-4040		
	VAPOR RECOVERY CAP		DPW 1711T-7085	UNIVERSAL 0813VC		
	VAPOR RECOVERY ADAPTOR		DPW 1811AV-1830	UNIVERSAL 0811V-3040		
	VENT VALVE ASSEMBLY W/3" FLOAT VALVE		DPW 53VA-1	UNIVERSAL 35-01118		SEE RESTRICTION SPRING LENGTH WILL VARY DEPENDING ON TANK DIAMETER
	PRESSURE/VACUUM VALVE		DPW 523 LPS-2250			8" O.D. DIA. TANK = 14" BARREL LENGTH, 10" O.D. DIA. TANK = 18" BARREL LENGTH
	4" ALUMINUM FILL TUBE		DPW 817-7588	UNIVERSAL 7234015		CONTRACTOR TO CUT TO REQUIRED LENGTH FOR INSTALLATION TO MEET REQUIRED OFFSET DISTANCE FROM TANK SECTION - SEE DETAIL 1 OF SHEET F-5.
	18" DIAMETER MANHOLE W/SECURED LID		DPW 1044M-0018	UNIVERSAL 98-1810		
	FLEXIBLE CONNECTOR 24" LENGTH		TELEFLX 40-10478-240	TELEFLX 111430-32-0240		
	FLEXIBLE CONNECTOR 18" LENGTH		TELEFLX 40-10478-180	TELEFLX 111381-32-0180		
	FLEXIBLE CONNECTOR 12" LENGTH		TELEFLX 40-10480-180	TELEFLX		
	FLEXIBLE CONNECTOR 6" MM		TELEFLX 40-10602-120	TELEFLX		
	CONTAINMENT BOOT		TELEFLX	TELEFLX		
	FIBERGLASS DISPENSER CONTAINMENT BOX		PHL-TITE FG-4812-390-WE	WESTERN FIBERGLASS PRODUCTS + ACCESSORIES		
	FIBERGLASS CONTAINMENT SUMP		TANK MANUFACTURER	PHL-TITE FG-4251-S		
	FIBERGLASS CONTAINMENT SUMP REDUCER		TANK MANUFACTURER	PHL-TITE FG-4333 SRC		
	36" MULTI-PORT MANHOLE		PHL-TITE SC-3600-T92-2-1 W/13 GALLON			USE SC-3600-SCA-2 FOR USED OIL TANK INSTALLATION
	SECONDARY SUMP SHIELD		PHL-TITE SC-3601-S5			USE SC-3600-TSC-1 FOR DECEL TANK INSTALLATION
	SPILL CONTAINMENT BUCKET		PHL-TITE 15 GALLON CAPACITY			USE WITH MULTI-PORT MANHOLE
	36" DIAMETER MANHOLE		PHL-TITE SC-3600-QAO			
	SECONDARY SUMP SHIELD		PHL-TITE SC-3600-L			USE WITH 36" DIAMETER MANHOLE
	PRODUCT TAG HOLDER		PHL-TITE 16 TAG BRACKET	DPW 107-0300		
	PENETRATION BOOT FOR F.R.P. PIPE		EMVOR FEB 8200 (FOR 2" F.R.P. PIPE)			
	PENETRATION BOOT FOR CONDUIT		EMVOR FEB 9070 (FOR 1/2" DIA. CONDUIT)			
	2" X 2" BOOT WITH TEST PORT		FERROD 1026-32	WEAVER C342		TEST PORT TO BE UNPLUGGED AFTER PRESSURE TESTS ARE COMPLETED
	2" FULL PORT BALL VALVE		JO MAR T-100 100-849 TCS-2000	MELES JAMESBURY 23-22384T-1		
	MONITOR TAG		CHEVRON TAG-82			
	COLOR REFLECTOR L.D. MARKERS					RED/BLACK UNLEADED = WHITE, PLUS UNLEADED = BLUE
	WRAP AROUND MARKERS					SUBSIBE UNLEADED = RED, #2 CHECKS = YELLOW
	COLOR REFLECTOR COLLAR					CUT MARKERS TO FIT
	ANNULAR SPACE RISER CAP		VEEDER007.312025-953			
	DISPENSER SHEAR VALVE		DPW 108P			
	VAPOR SHEAR VALVE		DPW 60V-SPC			
	VAPOR IMPACT VALVE SUPPORT KIT		PHL-TITE			
	EXTRACTOR FITTING		DPW 233AM-4422			
	EXTRACTOR FITTING		DPW 233AM-8045			
	DOUBLE WALL FIBERGLASS FUEL STORAGE TANKS		VEDDES 1,000 GALLON .FT. DIA.	OWENS-CORNING 1,000 GALLON .FT. DIA.		
	TURBINE PUMP		F.E. PETRO 1 1/2 H.P. 57H-130-HP	RED JACKET 1 1/2 H.P. P150 S1		
	MONITOR CONTROL BOX		VEEDER ROOT 3000			
	TANK LEVEL MONITOR PROBE MOUNTING KIT		VEEDER ROOT 3000			
	CONTAINMENT SUMP PROBE		APU/ROMAN LS-3			
	ANNULAR SPACE PROBE		DEMS (FIBER OPTIC SWITCH)	APU/ROMAN LS-7		
	FILTER TRIP KIT		DRESSER WYME			SHIPPED WITH P.U.G. DISPENSER
	FILL/VAPOR RISER SUPPORT BRACKET		PHL-TITE #1408			
	CONCRETE SLAB SEAL		FEDERAL CHEMICALS CONCRETE SEALER MS-20	AQUA-CRETE MS-20		USE 60 ORT SILICA SAND
	FIBERGLASS PRIMARY PRODUCT PIPING		A-O-SMITH PIPE-2" RED THREAD 1A GLUE - DS 8014	AMERON PIPE-3302047 GLUE - 8P48A		CONTRACTOR MUST HEAT PACK THE GLUE
	FIBERGLASS SECONDARY CONTAINMENT PIPING		A-O-SMITH PIPE-2" RED THREAD 1A GLUE - DS 7089 DS 8028	AMERON PIPE-3303078 GLUE - 8P48A		CONTRACTOR MUST HEAT PACK THE GLUE PER MANUFACTURER INSTALLATION INSTRUCTIONS
	FIBERGLASS VENT PIPING		A-O-SMITH PIPE-2" RED THREAD 1A GLUE - DS 7089 DS 8028	AMERON PIPE-3302047 GLUE - 8P48A		
	FIBERGLASS VAPOR RECOVERY PIPING		A-O-SMITH PIPE-2" RED THREAD 1A GLUE - DS 7089 DS 8028	AMERON PIPE-3303078 GLUE - 8P48A		
	300# BLACK IRON UNION					
	REFLECTOR MOUNTING HARDWARE		1/4" STAR STAINLESS STEEL CONCRETE INSERT			HARDWARE AVAILABLE AT DOW-WARD SUPPLY HARDWARE, ETC.
	CHECK VALVE		1/4" STAINLESS STEEL COUNTERSINK PHILLIPS HEAD MACHINE SCREW			CHECK VALVE IS ONLY REQUIRED FOR MANFOLDED UNLEADED TANKS WHICH HAVE RED JACKET SUBMERSIBLE TURBINE PUMPS.

- CONTRACTOR TO PICK UP THESE MATERIALS AT
- ALL OTHER EQUIPMENT AND MATERIALS SHOWN ON THE DRAWINGS BUT NOT DESIGNATED IN THIS SUMMARY SHALL BE FURNISHED & INSTALLED BY THE GENERAL CONTRACTOR
- VERIFY THE USE OF ALTERNATE MATERIAL MANUFACTURER WITH THE CHEVRON CONSTRUCTION REPRESENTATIVE PRIOR TO EQUIPMENT PROCUREMENT

MARK	DATE	REVISIONS	INITIAL

**BILL OF MATERIAL
FUEL TANK INSTALLATIONS**

9-0121
3026 LAKESHORE AVENUE
OAKLAND, CALIFORNIA

ROBERT H. LEE & ASSOCIATES, INC.
ARCHITECTURE ENGINEERING ENVIRONMENTAL SERVICES
1127 NORTH MARSHALL STREET PETALUMA CA 94954 (707) 760-1888
204 E. JEFFERSON STREET SUITE 200 OAKLAND CA 94612

PHL REVIEW	INITIAL	DATE	DATE STAMP
PRELIMINARY			06 21
PLANNING			
STEEL NO.			07/11
BLUE PRINT			
GENERAL NO.			04.2 08/11/10
PERMIT NO.			0427
CONSTRUCTION			
DO NOT USE PERMITS BY CONSTRUCTION FROM OTHERS			

F-5

FOR REFERENCE ONLY

DRAWING NO. F:\CAD\88411\TANKS\88411F5 AREA 4 Ugenom.s.dwg JUL 22 1998 13:39 Scale:1 ALAMEDA COUNTY TYPICALS SUPPLIED IN "PACKAGE" SEE GENERAL NOTE 1 CHEVRON