



**KLEINFELDER**

*An employee-owned company*

June 14, 1995

File: 10-1682-03/38

Mr. Dennis Hunt  
District Manager  
Industrial Asphalt  
P. O. Box 636  
Pleasanton, California 94566

**SUBJECT: Semi-Annual Report (September 1994 — February 1995) Industrial Asphalt,  
Pleasanton, California**

Dear Mr. Hunt:

Kleinfelder, Inc., is pleased to submit this semi-annual report including data from September 1994 through February 1995 for the Industrial Asphalt site in Pleasanton, California (Plate 1). Semi-annual progress reports were requested by the Alameda County Department of Environmental Health (ACDEH).

## **INTRODUCTION**

Thirteen monitoring wells and eleven extraction wells are present onsite. Groundwater remediation began in July, 1994. Data collected from the quarterly monitoring of monitoring wells have been used to evaluate the nature and extent of the plume and the ground water gradient beneath the site. The locations of the monitoring and extraction wells are shown on Plate 2. All accessible monitoring wells are monitored for depth to water and product thickness (if present) on a quarterly basis in accordance with recommendations in the Remedial Investigation Report dated December 28, 1990. Groundwater samples were collected and analyzed for the target compounds including total petroleum hydrocarbons (TPH) as diesel (TPH[d]) and oil (TPH[o]), and polychlorinated biphenyls (PCBs). Additionally, as requested by the ACDHS in their letter to your firm dated February 21, 1991, water samples were also analyzed for Total Oil and Grease (TOG) and Total Hydrocarbons (TH).

Water samples were collected in November 1994 and February 1995. In November, all but one (MW-9) of the thirteen onsite groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-10, MW-14, MW-15, and MW-16) were sampled. Monitoring well MW-9 was not accessible due to flooding on the sampling days. In February, wells MW-3 and MW-9 were not accessible or sampled due to flooding and a parked vehicle. Duplicate samples were collected from monitoring wells MW-2 and MW-14 in November 1994,

and from wells MW-2 and MW-8 in February 1995. In addition to the onsite monitoring wells, an offsite water supply well located on the adjacent Jamieson property was sampled via a hose tap. Refer to Plate 2 for the location of all wells and the offsite well.

## **WATER LEVEL MONITORING DATA**

Groundwater surface elevations were measured in monitoring wells on November 14 and 28, 1994 and on February 14, 1995, prior to sampling. The November 28 measurements were taken following a period of heavy rainfall. Water levels in the eleven groundwater extraction wells were measured for the first time during the February sampling round. These measurements are summarized on Table 1.

Overall groundwater surface elevations at the site dropped an average of about 2.0 feet from August 23 to November 14, 1994, with a further drop of about 0.5 feet between November 14 and 28, 1994. From November 28, 1994, to February 14, 1995 surface elevations continued to fall another 2.9 feet. In total, water levels beneath the site fell an average of about 5.4 feet through the fall and early winter.

On November 14, 1994, groundwater flow directions beneath the site were to the west and northwest with gradients varying from 0.004 on the east, steepening to 0.009 in the central portion of the site, then flattening to 0.001 on the west (Plate 3). At the time the groundwater remediation system was pumping an average of 7.8 gallons per minute for the prior week. Two weeks later, on November 28, 1994, the groundwater flow direction beneath the site was consistently towards the west with an overall gradient of 0.002 with a slightly steeper gradient to the east. At that time the remediation system was removing about 13 gallons per minute for the prior week. By February 24, 1995, the groundwater flow beneath the site had shifted to a northerly direction at the western and central portions of the site and towards the northeast beneath the eastern portion of the site as operation of the remediation system became more consistent. Relatively steep gradients of 0.02 to the north and east were apparent in the vicinity of well EW-6, which had the highest water level reported for the site. A flatter gradient of 0.004 to the north was inferred beneath the central portion of the site, shifting to the northeast (towards Arroyo Mocho) beneath the eastern portion of the site and away from the influence of the extraction wells. Drawdown cones were noted in the areas of wells EW-7 and EW-11 in particular. At this time the remediation system was pumping approximately 5.8 gallons per minute for the prior week.

## **GROUNDWATER CHEMISTRY MONITORING RESULTS**

Groundwater samples collected from the site were analyzed by American Environmental Network (AEN) laboratories, a State-certified analytical laboratory. The samples were analyzed for TPH(d) and TPH(o) using a modified EPA Test Method 8015 (extraction), for TOG using standard method (SM) 5520C, for TH using SM-5520F, and for PCBs using EPA Test Method 8080. Analytical data are summarized on Table 2. Complete analytical laboratory reports for the

November 1994 and February 1995 sampling events along with chain of custody records are included in the Appendix.

A sheen and/or hydrocarbon-like odors were reported for four of the thirteen wells sampled during these two rounds (MW-1, MW-2, MW-3, and MW-8).

No detectable concentrations of PCBs were found during the November sampling round. PCBs were detected in February in only one sample (from MW-1) at a concentration of 0.8 µg/L. PCBs were last detected in a sample collected from this well in May 1994 at a concentration of 0.7 µg/L.

No petroleum hydrocarbons were detected in wells MW-5, MW-6, or the Jamieson production well in November 1994. No petroleum hydrocarbons were detected in wells MW-4, MW-6 or the Jamieson well in February 1995.

TPH(d) was detected in the samples collected from nine of the thirteen sampled wells (MW-1, MW-2, MW-3, MW-7, MW-8, MW-10, MW-14, MW-15, and MW-16) in November 1994. TPH(o) was detected in seven of the wells (MW-1, MW-2, MW-3, MW-7, MW-8, MW-10, MW-15). TOG was detected in seven of the wells (MW-1, MW-2, MW-3, MW-4, MW-7, MW-8, MW-10). The highest petroleum hydrocarbon concentrations were detected in the sample collected from MW-2 in November 1994.

In February 1995, TPH(d) was detected in samples from six of the twelve wells (MW-1, MW-2, MW-7, MW-9, MW-10, MW-15). TPH(o) was detected in samples from eight wells (MW-1, MW-2, MW-5, MW-7, MW-8, MW-10, MW-14, MW-16). TOG was found in samples from seven wells (MW-1, MW-2, MW-7, MW-8, MW-10, MW-15, MW-16). TH was detected in samples from four wells (MW-1, MW-2, MW-8, MW-10). The highest petroleum hydrocarbon concentrations were found in the sample water collected from MW-1.

Duplicate samples were collected from wells MW-2 and MW-14 in November 1994. The duplicate results from MW-2 differ between four to seven times of each other, which is outside of typical quality control limits. In February 1995 duplicate samples were collected from MW-2 and MW-8. Analytical results for these samples appeared to be in fair agreement with one another indicating acceptable levels of field and laboratory precision.

## SUMMARY

A review of the data available from the November 1994 and February 1995 sampling rounds at the Industrial Asphalt site indicates the following:

- The groundwater surface elevation beneath the site decreased approximately 2.5 feet between August 23 and November 28, 1994, and 2.9 feet between November 28, 1994 and February 14, 1995. The groundwater flow direction has shifted from the northwest to a complex pattern as the treatment system has increased its operating rate.

- Between November 1994 and February 1995, petroleum hydrocarbon concentrations beneath the site were similar except for well MW-1 (a six-fold increase) and MW-2 (a 50 percent increase).
- In August 1994 no petroleum hydrocarbons were detected in wells MW-4, MW-5, MW-6, MW-10, MW-14, MW-15, MW-16, or the Jamieson well. These constituents were not detected in wells MW-5, MW-6, or the Jamieson well in November 1994. During the most recent sampling round in February 1995, wells MW-4, MW-6, and the Jamieson well did not contain detectable levels of the target constituents.
- In the last three years, PCBs were detected in samples collected from MW-1 only during the May 1992 (1 µg/l), August 1993 (2 µg/l), February 1994 (0.7 µg/l), May 1994 (0.7 µg/l) and February 1995 (0.8 µg/l) sampling rounds.

## RECOMMENDATIONS

Oil and grease, TPH(d), TPH(o), TOG, total hydrocarbons, and PCBs have occasionally been found in water samples obtained from most of the onsite monitoring wells. It is recommended that quarterly sampling be continued and that water samples be analyzed for the same compounds. This is to allow an assessment of possible changes in concentrations of these compounds in the groundwater at various locations and to document changes in groundwater contamination during site remediation.

## LIMITATIONS

This report was prepared in general accordance with the accepted standard of practice which exists in Northern California at the time the investigation was performed. It should be recognized that definition and evaluation of environmental conditions is a difficult and inexact art. Judgements leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies. If the Client wishes to reduce the uncertainty beyond the level associated with this study, Kleinfelder should be notified for additional consultation.

Our firm has prepared this report for the Client's exclusive use for this particular project and in accordance with generally accepted engineering practices within the area at the time of our investigation. No other representations, expressed or implied, and no warranty or guarantee is included or intended.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both onsite and offsite) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be




performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.

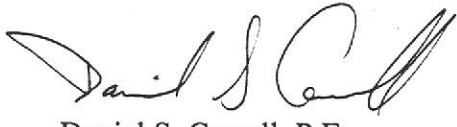
If you have any questions regarding this report or require additional information, please contact the undersigned at (510) 484-1700.

Sincerely,

**KLEINFELDER, INC.,**

  
Guy A. Jett, R.G.  
Project Geologist



  
Daniel S. Carroll, P.E.  
Project Manager

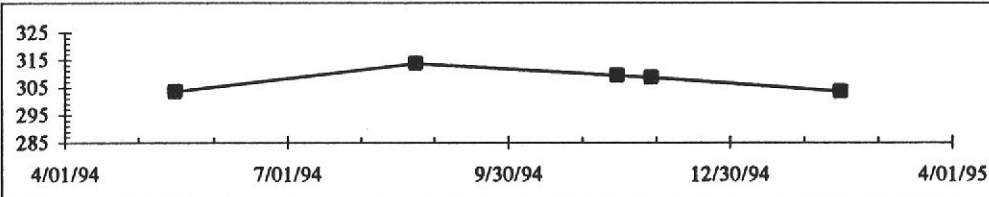
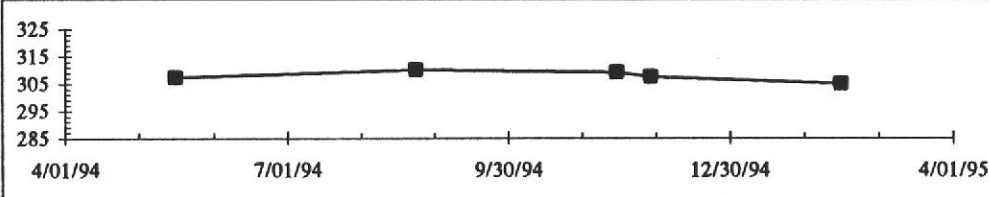
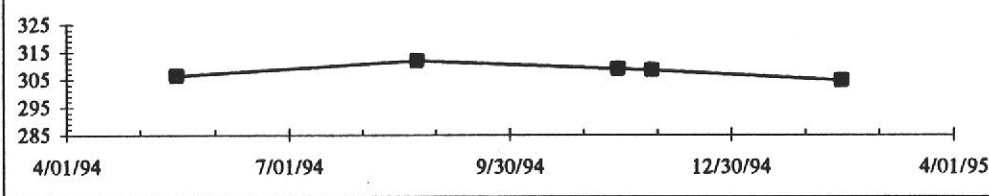
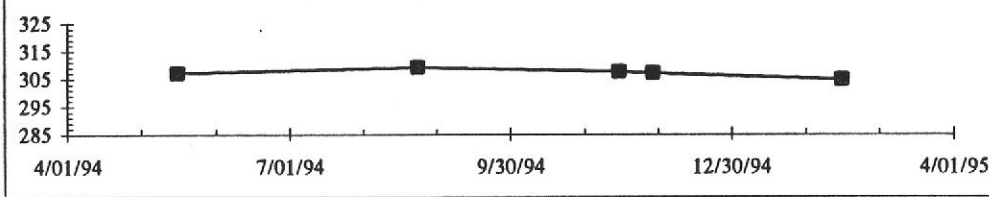
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cc: Ravi Arulanantham - Alameda County Department of Environmental Health  
John Jang - California Regional Water Quality Control Board  
Jerry Killingstad - Alameda County Flood Control and Water Conservation District, Zone 7

**TABLE 1**  
**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-1	5/16/94	SHEEN	72.72	306.69	
MP Elev.	8/23/94	SHEEN	68.82	310.59	
379.41	11/14/94	SHEEN	71.29	308.12	
Well Depth	11/28/94	SHEEN	71.44	307.97	
88	2/14/95	SHEEN	74.77	304.64	
MW-2	5/16/94	SHEEN	72.91	306.89	
MP Elev.	8/23/94	SHEEN	70.49	309.31	
379.80	11/14/94	SHEEN	72.16	307.64	
Well Depth	11/28/94	SHEEN	72.16	307.64	
90	2/14/95	SHEEN	75.16	304.64	
MW-3	5/16/94	SHEEN	71.26	307.28	
MP Elev.	8/23/94	SHEEN	68.82	309.72	
378.54	11/14/94	SHEEN	70.76	307.78	
Well Depth	11/28/94	SHEEN	71.19	307.35	
90	2/14/95	SHEEN	73.73	304.81	
MW-4	5/16/94	NE	69.26	307.00	
MP Elev.	8/23/94	NE	67.76	308.50	
376.26	11/14/94	NE	69.12	307.14	
Well Depth	11/28/94	NE	69.53	306.73	
95	2/14/95	NE	71.71	304.55	

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**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-5	5/16/94	NE	79.04	303.51	
MP Elev.	8/23/94	NE	68.60	313.95	
382.55	11/14/94	NE	73.10	309.45	
Well Depth	11/28/94	NE	73.87	308.68	
110	2/14/95	NE	78.91	303.64	
MW-6	5/16/94	NE	71.74	307.41	
MP Elev.	8/23/94	NE	69.02	310.13	
379.15	11/14/94	NE	70.02	309.13	
Well Depth	11/28/94	NE	71.50	307.65	
109	2/14/95	NE	74.19	304.96	
MW-7	5/16/94	NE	72.52	306.42	
MP Elev.	8/23/94	NE	67.01	311.93	
378.94	11/14/94	NE	70.01	308.93	
Well Depth	11/28/94	NE	70.46	308.48	
109	2/14/95	NE	74.20	304.74	
MW-8	5/16/94	ODOR	71.48	307.08	
MP Elev.	8/23/94	ODOR	69.49	309.07	
378.56	11/14/94	ODOR	71.04	307.52	
Well Depth	11/28/94	ODOR	71.46	307.10	
109	2/14/95	ODOR	73.87	304.69	

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**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-9	5/16/94	NA	Flooded		
MP Elev.	8/23/94	NA	Buried		
377.40	11/14/94	NA	Flooded		
Well Depth	11/28/94	NA	Flooded		
108	2/14/95	NA	Flooded		
MW-10	5/16/94	NE	70.76	307.28	
MP Elev.	8/23/94	NE	69.11	308.93	
378.04	11/14/94	NE	70.61	307.43	
Well Depth	11/28/94	NE	71.01	307.03	
111	2/14/95	NE	73.32	304.72	
MW-14	5/16/94	NE	73.15	306.94	
MP Elev.	8/23/94	NE	70.69	309.40	
380.09	11/14/94	NE	72.51	307.58	
Well Depth	11/28/94	NE	72.85	307.24	
114.5	2/14/95	NE	75.48	304.61	
MW-15	5/16/94	NE	72.01	306.11	
MP Elev.	8/23/94	NE	67.92	310.20	
378.12	11/14/94	NE	70.29	307.83	
Well Depth	11/28/94	NE	70.66	307.46	
117	2/14/95	NE	73.83	304.29	

**TABLE 1**  
**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Product Thickness (ft)	Depth to Water (ft)	Elevation (ft, MSL)	Trend
MW-16	5/16/94	NE	72.22	307.43	
MP Elev.	8/23/94	NE	69.99	309.66	
379.65	11/14/94	NE	71.83	307.82	
Well Depth	11/28/94	NE	72.24	307.41	
110	2/14/95	NE	73.83	305.82	
STAFF	5/16/94	NE	2.40	302.40	
GAGE	8/23/94	NE	Above Staff Gage		
MP Elev.	11/14/94	NE	Above Staff Gage		
300.00	11/28/94	NE	Above Staff Gage		
	2/14/95	NE	Above Staff Gage		
CJMW-1	5/16/94	NE	73.61	309.14	
MP Elev.	8/23/94	NE	74.65	308.10	
382.75	11/14/94	NE	75.77	306.98	
Well Depth	11/28/94	NE	76.10	306.65	
NA	2/14/95	NE	77.23	305.52	

**NOTES:**

MP Elev. Measuring Point Elevation refers to Top of Casing, Mean Sea Level (USGS Datum)

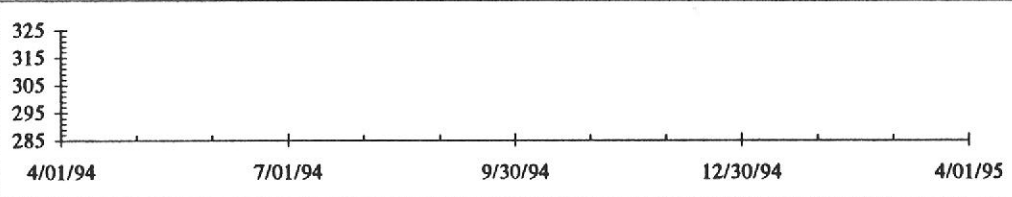
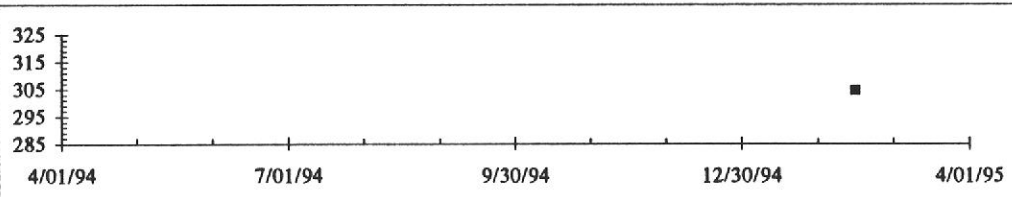
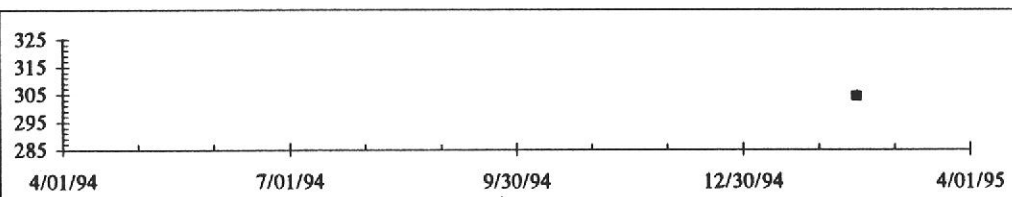
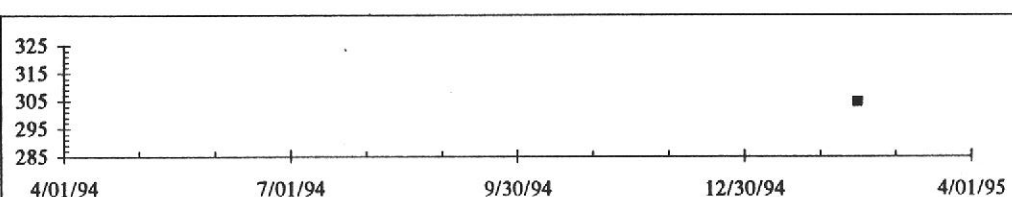
Depth to Water in feet below Top of Casing

NA Not Applicable

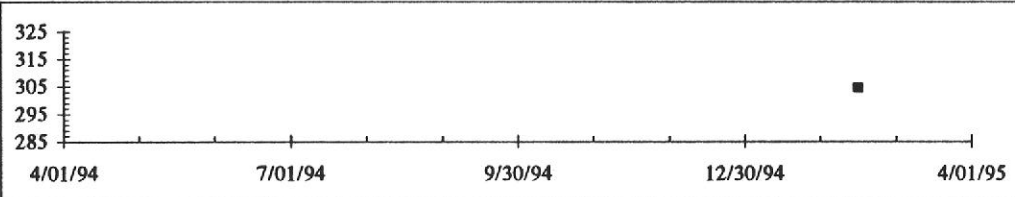
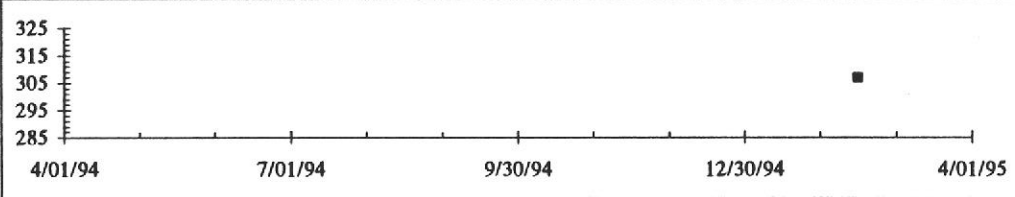
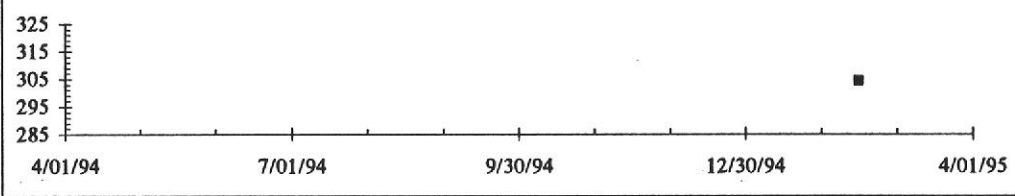
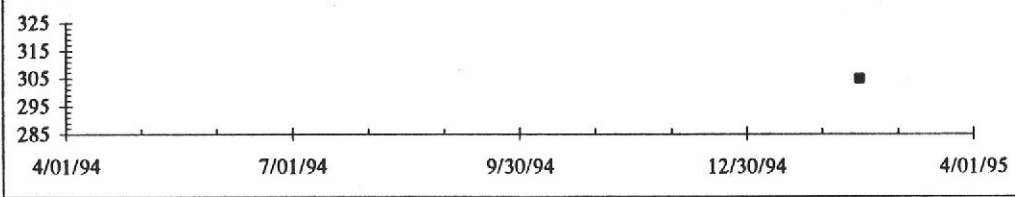
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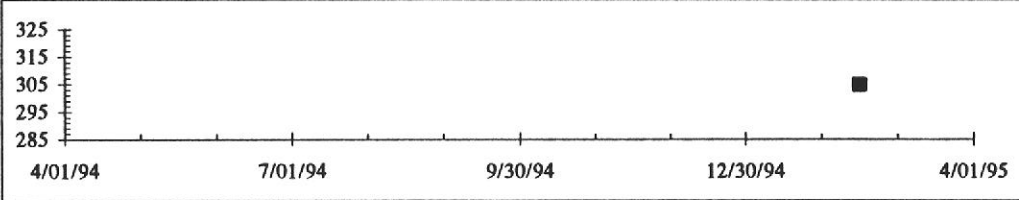
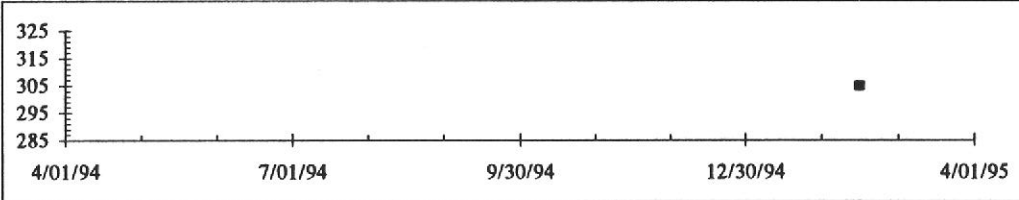
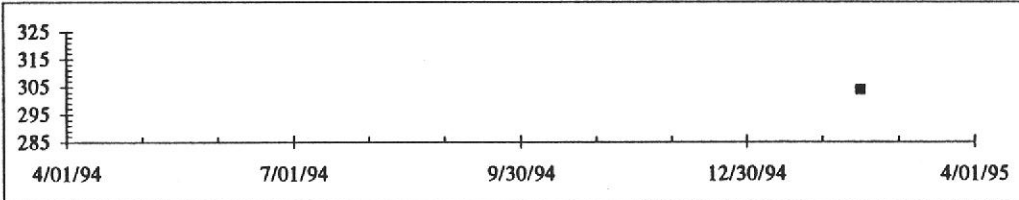
**TABLE 1**  
**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Depth to Water (ft)	Elevation (ft, MSL)	Trend
EW-1 MP Elev. 374.41	2/14/95	Not Located		
EW-2 MP Elev. 375.55	2/14/95	70.92	304.63	
EW-3 MP Elev. 376.43	2/14/95	72.03	304.40	
EW-4 MP Elev. 377.89	2/14/95	73.34	304.55	

**TABLE 1**  
**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Depth to Water (ft)	Elevation (ft, MSL)	Trend
EW-5 MP Elev. 377.44	2/14/95	73.00	304.44	
EW-6 MP Elev. 375.40	2/14/95	68.59	306.81	
EW-7 MP Elev. 375.33	2/14/95	70.94	304.39	
EW-8 MP Elev. 376.46	2/14/95	71.67	304.79	

**TABLE 1**  
**SUMMARY OF GROUND WATER ELEVATIONS**  
**INDUSTRIAL ASPHALT**

Well Number	Date	Depth to Water (ft)	Elevation (ft, MSL)	Trend
EW-9 MP Elev. 377.14	2/14/95	72.31	304.83	
EW-10 MP Elev. 376.31	2/14/95	71.47	304.84	
EW-11 MP Elev. 376.46	2/14/95	72.70	303.76	

**NOTES:**

MP Elev. Measuring Point Elevation refers to Top of Casing, Mean Sea Level (USGS Datum)

Depth to Water in feet below Top of Casing

NA Not Applicable

NE Not Encountered

**TABLE 2**  
**SUMMARY OF ANALYTICAL RESULTS**  
**INDUSTRIAL ASPHALT**

Well Number	Sample Date	Sample Number	TPH as Diesel <sup>1</sup> (mg/L)	TPH as Oil <sup>1</sup> (mg/L)	Total Oil & Grease <sup>2</sup> (mg/L)	Total Hydrocarbons <sup>3</sup> (mg/L)	PCBs <sup>4</sup> ( $\mu$ g/L)
MW-1	May 1994	63333	31	20	150	100	0.7
	Aug. 1994	64171	3.2	2.6	0.8	0.6	ND
	Nov. 1994	652390	0.6	0.6	5	3	ND
	Feb. 1995	4142	4.8	3.6	91	75	0.8
MW-2	May 1994	59228	13	7.0	6.1	4.8	ND
	Aug. 1994	64149	0.65	ND	0.8	ND	ND
	(duplicate)	61815	0.64	ND	0.8	ND	ND
	Nov. 1994	12241	19	13	45	34	ND
	(duplicate)	25961	4.3	2.5	6.7	5.2	ND
	Feb. 1995	4140	2.3	1	13	10	ND
	(duplicate)	4144	3.3	2.3	19	16	ND
MW-3	May 1994	59226	6.0	3.6	6.4	5.6	ND
	Aug. 1994	64150	0.1	ND	ND	ND	ND
	Nov. 1994	650510	2.5	1.9	9.3	7.0	ND
	Feb. 1995	NA	NT	NT	NT	NT	NT
MW-4	May 1994	63357	ND	0.4	2	0.6	ND
	Aug. 1994	64106	ND	ND	ND	ND	ND
	Nov. 1994	652496	ND	ND	0.5	ND	ND
	Feb. 1995	4131	ND	ND	ND	ND	ND
MW-5	May 1994	63335	ND	ND	ND	ND	ND
	Aug. 1994	64197	ND	ND	ND	ND	ND
	Nov. 1994	652490	ND	ND	ND	ND	ND
	Feb. 1995	4130	ND	0.2	ND	ND	ND
MW-6	May 1994	59231	ND	0.6	ND	ND	ND
	Aug. 1994	64107	ND	ND	ND	ND	ND
	Nov. 1994	652395	ND	ND	ND	ND	ND
	Feb. 1995	4132	ND	ND	ND	ND	ND
MW-7	May 1994	55441	ND	1	ND	ND	ND
	(duplicate)	59230	ND	0.3	0.9	ND	ND
	Aug. 1994	64103	ND	ND	ND	ND	ND
	Nov. 1994	652382	0.08	0.2	0.8	ND	ND
	Feb. 1995	4134	0.09	0.3	0.6	ND	ND

**TABLE 2**  
**SUMMARY OF ANALYTICAL RESULTS**  
**INDUSTRIAL ASPHALT**

Well Number	Sample Date	Sample Number	TPH as Diesel <sup>1</sup> (mg/L)	TPH as Oil <sup>1</sup> (mg/L)	Total Oil & Grease <sup>2</sup> (mg/L)	Total Hydrocarbons <sup>3</sup> (mg/L)	PCBs <sup>4</sup> ( µg/L)
MW-8	May 1994	59232	0.5	0.9	0.6	ND	ND
	(duplicate)	59227	0.5	1.0	0.5	ND	ND
	Aug. 1994	64094	0.1	ND	ND	ND	ND
	(duplicate)	64093	0.1	ND	ND	ND	ND
	Nov. 1994	12236	1.1	1.5	1	0.5	ND
	Feb. 1995	4139	0.5	0.4	1	0.6	ND
	(duplicate)	4143	0.5	0.4	2	0.9	ND
MW-9	May 1994	NA	NT	NT	NT	NT	NT
	Aug. 1994	NA	NT	NT	NT	NT	NT
	Nov. 1994	NA	NT	NT	NT	NT	NT
	Feb. 1995	NA	NT	NT	NT	NT	NT
MW-10	May 1994	55440	1.8	2	2	0.7	ND
	Aug. 1994	64108	ND	ND	ND	ND	ND
	Nov. 1994	12206	2.0	0.5	2	0.9	ND
	Feb. 1995	4135	0.5	1	2	1	ND
MW-14	May 1994	63445	ND	ND	ND	ND	ND
	Aug. 1994	64221	ND	ND	ND	ND	ND
	Nov. 1994	12226	0.08	ND	ND	ND	ND
	(duplicate)	12231	0.09	ND	ND	ND	ND
	Feb. 1995	4138	ND	0.3	ND	ND	ND
MW-15	May 1994	63334	0.4	0.4	ND	ND	ND
	Aug. 1994	64216	ND	ND	ND	ND	ND
	Nov. 1994	12216	1.2	0.4	ND	ND	ND
	Feb. 1995	4136	0.2	ND	0.7	ND	ND
MW-16	May 1994	63448	0.08	0.3	ND	ND	ND
	Aug. 1994	64204	ND	ND	ND	ND	ND
	Nov. 1994	12221	0.06	ND	ND	ND	ND
	Feb. 1995	4137	ND	0.5	0.7	ND	ND



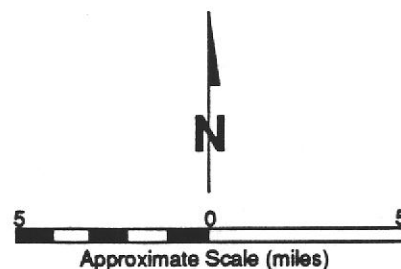
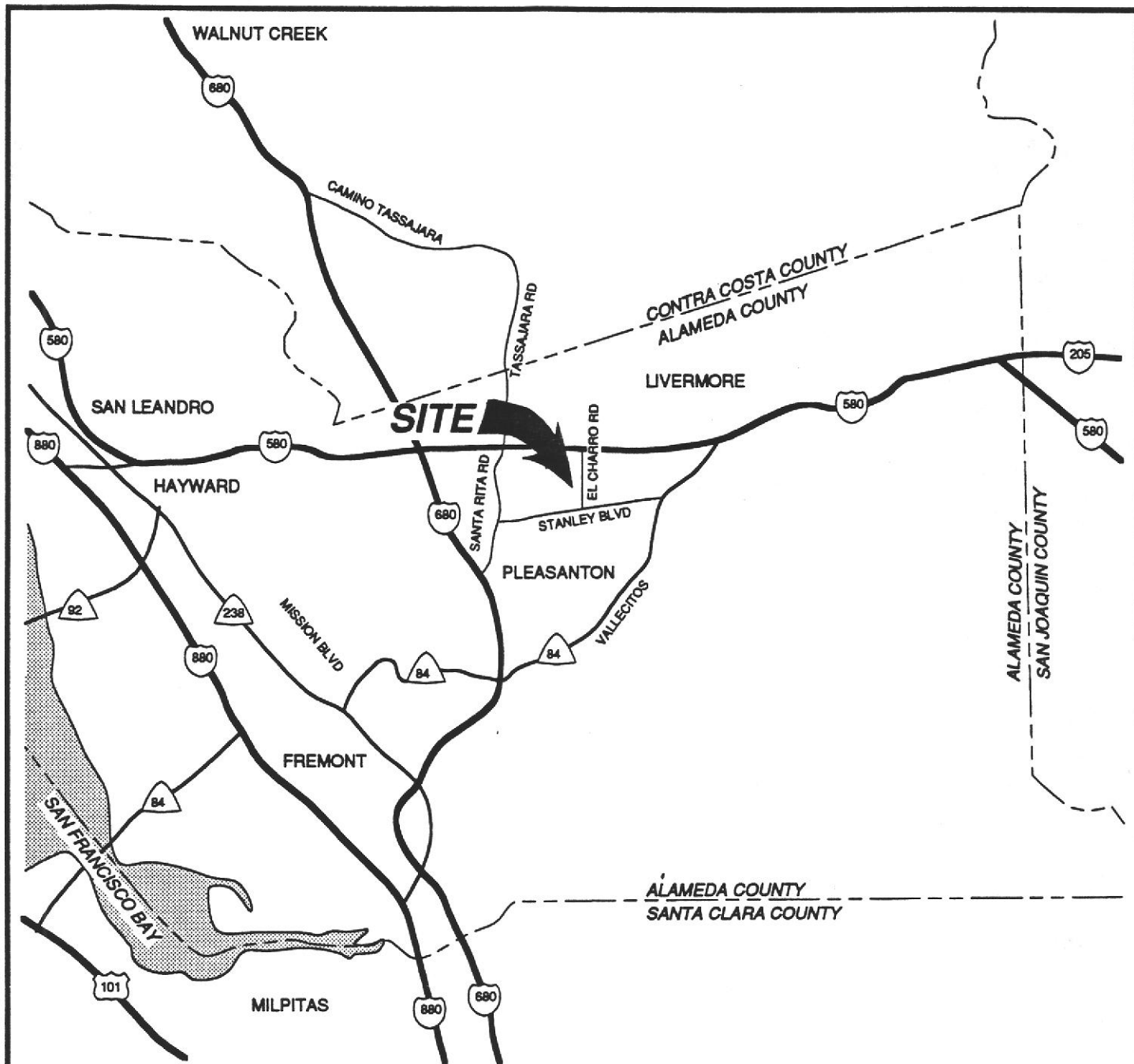
**TABLE 2**  
**SUMMARY OF ANALYTICAL RESULTS**  
**INDUSTRIAL ASPHALT**

Well Number	Sample Date	Sample Number	TPH as Diesel <sup>1</sup> (mg/L)	TPH as Oil <sup>1</sup> (mg/L)	Total Oil & Grease <sup>2</sup> (mg/L)	Total Hydrocarbons <sup>3</sup> (mg/L)	PCBs <sup>4</sup> ( µg/L)
14A2 <sup>7</sup>	May 1994	63332	ND	ND	ND	ND	ND
	Aug. 1994	64220	ND	ND	ND	ND	ND
	Nov. 1994	12211	ND	ND	ND	ND	ND
	Feb. 1995	4133	ND	ND	ND	ND	ND
Laboratory Detection Limit <sup>5</sup>			0.05	0.2	0.5	0.5	0.5
Drinking Water Standard <sup>6</sup>			—	—	—	—	0.5

**NOTES FOR TABLE 2**

- <sup>1</sup> Sample analysis via SM 3510 GCFID.
- <sup>2</sup> Sample analysis via SM 5520C.
- <sup>3</sup> Sample analysis via SM 5520F.
- <sup>4</sup> Polychlorinated Biphenyl compounds. Sample analysis via EPA Test Method 8080.
- <sup>5</sup> Routine Laboratory detection limits. Some limits may vary. Please refer to attached laboratory reports for specific detection limits.
- <sup>6</sup> California Department of Health Services Drinking Water Standards, Primary Maximum Contaminant Levels (MCL); secondary MCLs listed in parentheses. Source: Water Quality Goals, California Regional Water Quality Control Board, February 1991.
- <sup>7</sup> Jamieson Well sampled via a tap.

TPH Total Petroleum Hydrocarbons.  
 ND Not Detected at or above laboratory reporting limits  
 NT Not Tested



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# VICINITY MAP

INDUSTRIAL ASPHALT  
52 EL CHARRO ROAD  
PLEASANTON, CALIFORNIA

PLATE

1

DRAFTED BY: L. Sue

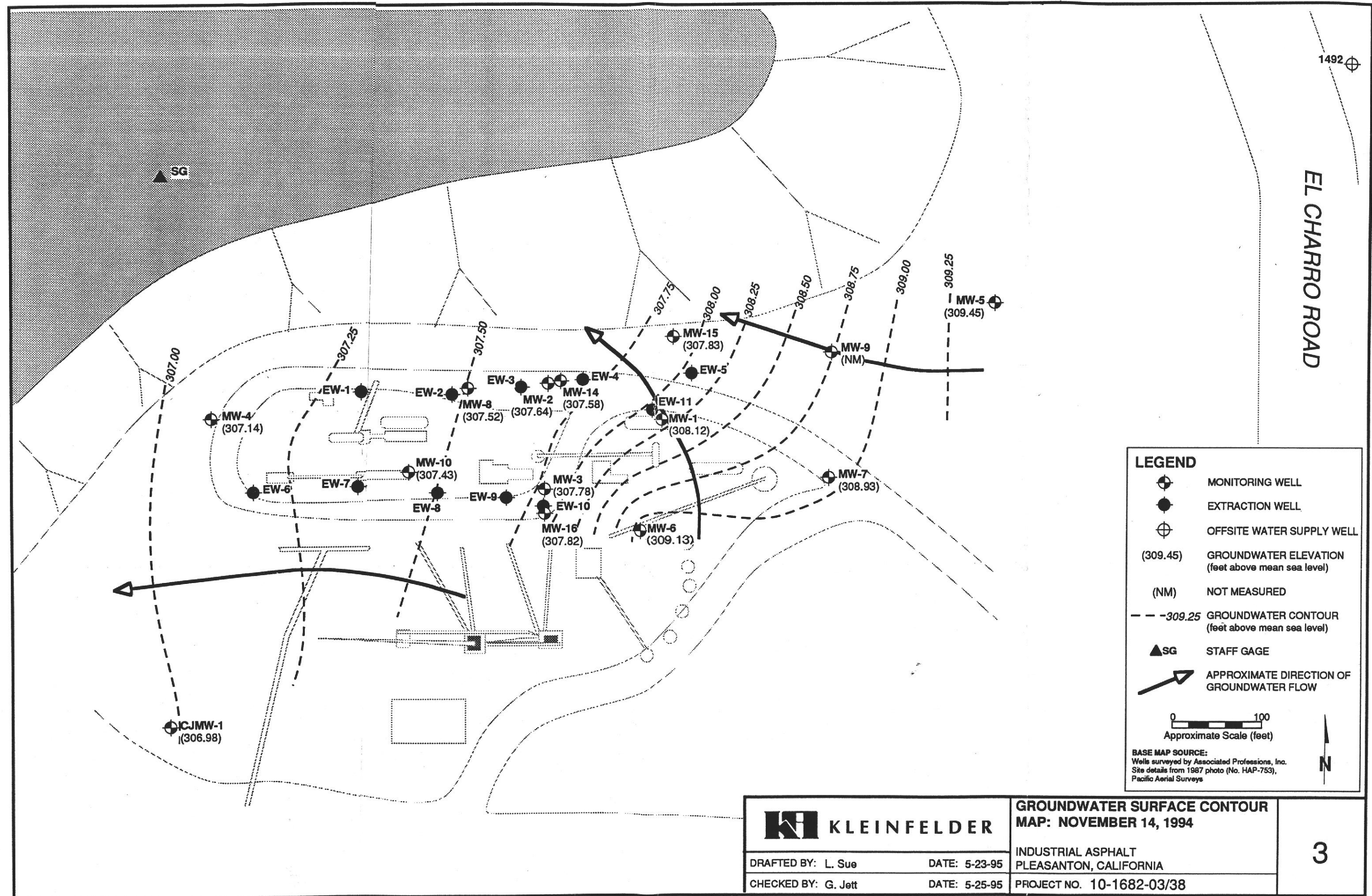
DATE: 11-16-94

CHECKED BY: D. Carroll

DATE: 11-16-94

PROJECT NUMBER 10-1682-08





**KLEINFELDER**

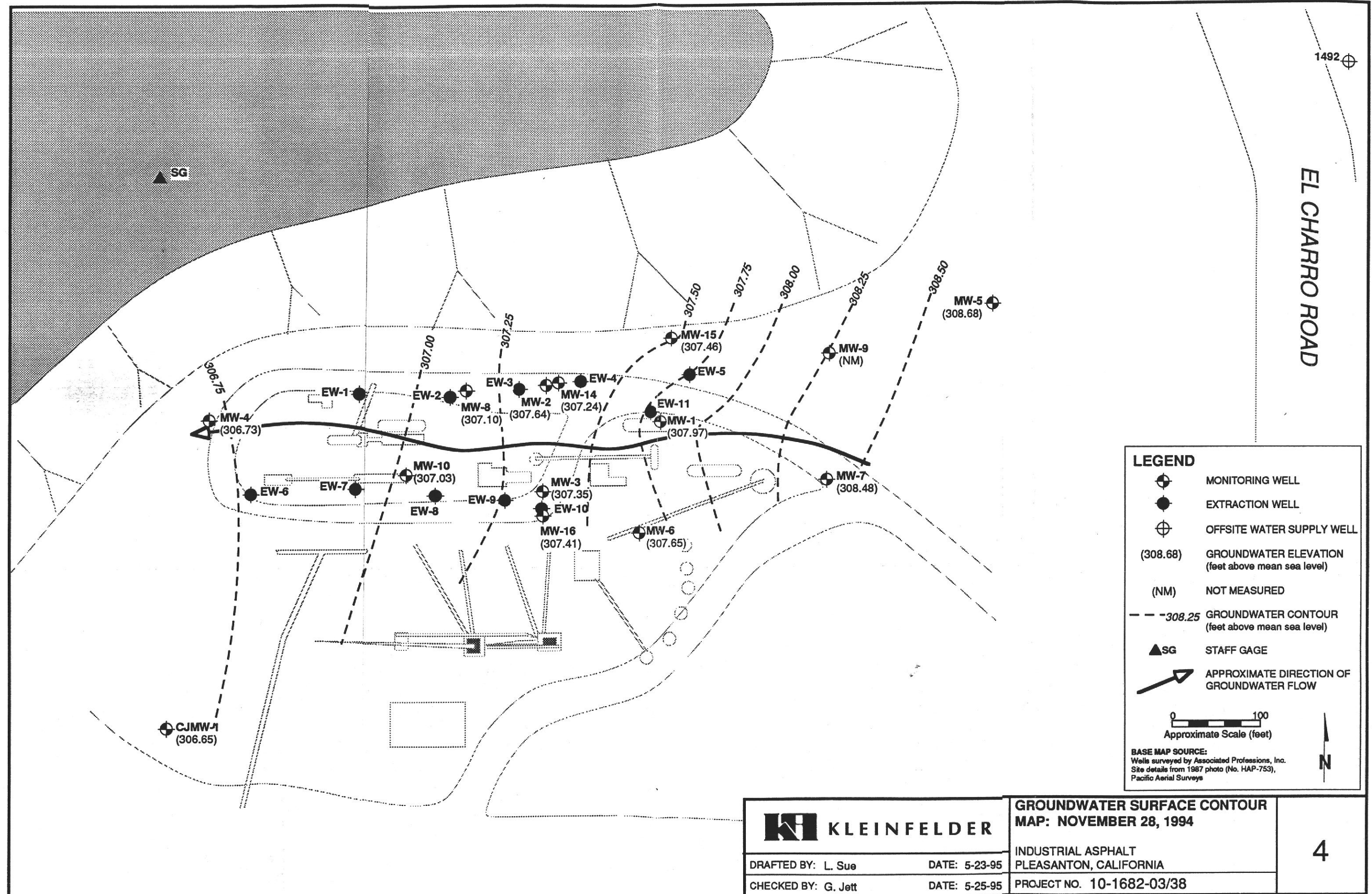
DRAFTED BY: L. Sue

DATE: 5-23-95

CHECKED BY: G. Jett

DATE: 5-25-95



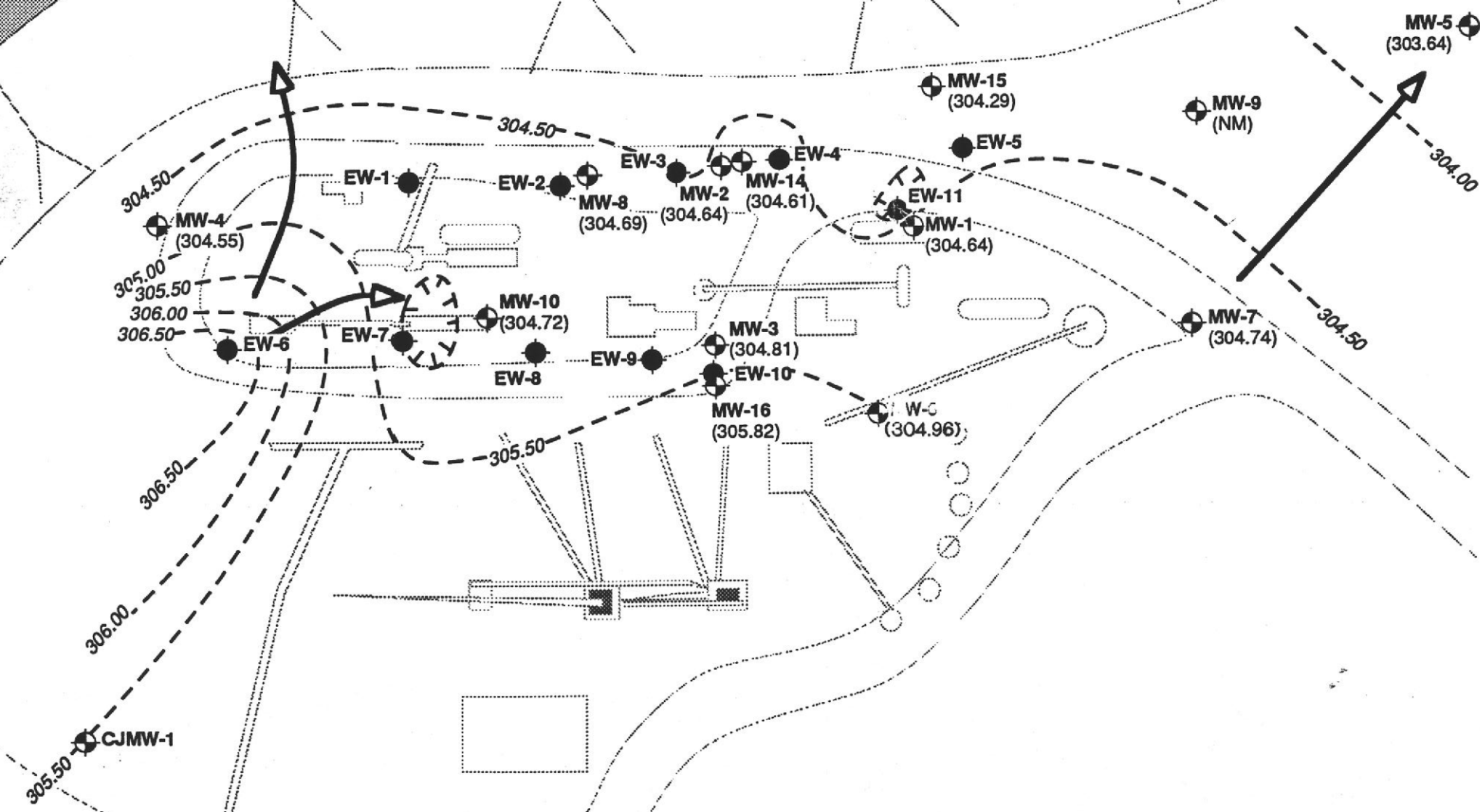




1492

EL CHARRO ROAD

SG




**LEGEND**

- MONITORING WELL
- EXTRACTION WELL
- OFFSITE WATER SUPPLY WELL
- (303.64) GROUNDWATER ELEVATION (feet above mean sea level)
- (NM) NOT MEASURED
- - -304.00 GROUNDWATER CONTOUR (feet above mean sea level)
- ▲SG STAFF GAGE
- ➔ APPROXIMATE DIRECTION OF GROUNDWATER FLOW

0 100  
Approximate Scale (feet)

**BASE MAP SOURCE:**  
Wells surveyed by Associated Professions, Inc.  
Site details from 1987 photo (No. HAP-753),  
Pacific Aerial Surveys

 KLEINFELDER		GROUNDWATER SURFACE CONTOUR MAP: FEBRUARY 14, 1995	5
DRAFTED BY: L. Sue	DATE: 5-23-95	INDUSTRIAL ASPHALT PLEASANTON, CALIFORNIA	
CHECKED BY: G. Jett	DATE: 5-25-95	PROJECT NO. 10-1682-03/38	

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

**FILE COPY** PAGE 1

KLEINFELDER, INC.  
7133 KOLL CENTER PARKWAY,  
SUITE 100  
PLEASANTON, CA 94566

ATTN: GUY JETT  
CLIENT PROJ. ID: 10-1682-03/35  
CLIENT PROJ. NAME: INDUST.ASPHALT  
C.O.C. NUMBER: 693  
P.O. NUMBER: R2137

REPORT DATE: 03/10/95

DATE(S) SAMPLED: 02/16/95-02/17/95

DATE RECEIVED: 02/21/95

AEN WORK ORDER: 9502253

### PROJECT SUMMARY:

On February 21, 1995, this laboratory received 10 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## KLEINFELDER, INC.

SAMPLE ID: 4134  
 AEN LAB NO: 9502253-01  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

mw-7

DATE SAMPLED: 02/16/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	0.09 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	0.3 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	0.6 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4135  
 AEN LAB NO: 9502253-02  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

MW-10

DATE SAMPLED: 02/16/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	0.5 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	1 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	1 *	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	2 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4136  
 AEN LAB NO: 9502253-03  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

MW-15

DATE SAMPLED: 02/16/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	0.2 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	ND	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	0.7 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit



## KLEINFELDER, INC.

SAMPLE ID: 4137 MW-16  
 AEN LAB NO: 9502253-04  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

DATE SAMPLED: 02/16/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	0.5 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	0.7 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4138  
 AEN LAB NO: 9502253-05  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

NW-14

DATE SAMPLED: 02/17/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	0.3 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4139 MW-8  
 AEN LAB NO: 9502253-06  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

DATE SAMPLED: 02/17/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	0.5 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	0.4 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	0.6 *	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	1 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4143 MW-8 (dup)  
 AEN LAB NO: 9502253-07  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

DATE SAMPLED: 02/17/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	0.5 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	0.4 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	0.9 *	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	2 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4140 MW-2  
 AEN LAB NO: 9502253-08  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

DATE SAMPLED: 02/17/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	2.3 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	1 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	10 *	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	13 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

KLEINFELDER, INC.

SAMPLE ID: 4144 *mw-2 (dup)*  
 AEN LAB NO: 9502253-09  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

DATE SAMPLED: 02/17/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	3.3 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	2.3 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	16 *	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	19 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4142      MW-1  
 AEN LAB NO: 9502253-10  
 AEN WORK ORDER: 9502253  
 CLIENT PROJ. ID: 10-1682-03/35

DATE SAMPLED: 02/17/95  
 DATE RECEIVED: 02/21/95  
 REPORT DATE: 03/10/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/28/95
TPH as Diesel	GC-FID	4.8 *	0.05	mg/L	03/02/95
TPH as Oil	GC-FID	3.6 *	0.2	mg/L	03/02/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	03/01/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	03/01/95
Hydrocarbons (IR)	SM 5520CF	75 *	0.5	mg/L	03/02/95
Oil & Grease (IR)	SM 5520C	91 *	0.5	mg/L	03/02/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/23/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	0.8 *	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit



AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9502253

CLIENT PROJECT ID: 10-1682-03/035

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

## QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9502253  
 DATE EXTRACTED: 02/28/95  
 INSTRUMENT: C  
 MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
03/02/95	4134	01	85
03/02/95	4135	02	88
03/02/95	4136	03	87
03/02/95	4137	04	76
03/02/95	4138	05	95
03/02/95	4139	06	90
03/02/95	4143	07	84
03/02/95	4140	08	91
03/02/95	4144	09	86
03/02/95	4142	10	86

QC Limits:

73-129

DATE EXTRACTED: 02/22/95  
 DATE ANALYZED: 02/25/95  
 SAMPLE SPIKED: DI WATER  
 INSTRUMENT: C

## Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	1.68	91	1	65-103	12

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

METHOD: SM 5520

AEN JOB NO: 9502253  
 DATE EXTRACTED: 03/01/95  
 DATE ANALYZED: 03/02/95  
 SAMPLE SPIKED: DI WATER  
 INSTRUMENT: IR  
 MATRIX: WATER

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Oil	7.5	89	2	80-109	5

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 608

AEN JOB NO: 9502253  
DATE EXTRACTED: 02/23/95  
INSTRUMENT: B  
MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			2,4,5,6-Tetrachloro-meta-xylene
02/25/95	4134	01	101
02/25/95	4135	02	106
02/25/95	4136	03	107
02/25/95	4137	04	113
02/25/95	4138	05	105
02/25/95	4139	06	104
02/25/95	4143	07	108
02/25/95	4140	08	90
02/25/95	4144	09	92
02/25/95	4142	10	85
QC Limits:			30-131

DATE EXTRACTED: 02/01/95  
DATE ANALYZED: 02/03/95  
SAMPLE SPIKED: DI WATER  
INSTRUMENT: B

## Method Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
A1260	4.00	101	1	53-133	16

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

\*\*\* END OF REPORT \*\*\*

Pink - Lab Copy No 693

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

**FILE COPY** PAGE 1

KLEINFELDER, INC.  
7133 KOLL CENTER PARKWAY,  
SUITE 100  
PLEASANTON, CA 94566

ATTN: GUY JETT  
CLIENT PROJ. ID: 10-1682-03/035  
CLIENT PROJ. NAME: INDUST ASPHALT  
C.O.C. NUMBER: 692  
P.O. NUMBER: R2137

REPORT DATE: 03/06/95

DATE(S) SAMPLED: 02/15/95

DATE RECEIVED: 02/16/95

AEN WORK ORDER: 9502205

### PROJECT SUMMARY:

On February 16, 1995, this laboratory received 4 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## KLEINFELDER, INC.

SAMPLE ID: 4130 *mw-5*  
 AEN LAB NO: 9502205-01  
 AEN WORK ORDER: 9502205  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 02/15/95  
 DATE RECEIVED: 02/16/95  
 REPORT DATE: 03/06/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/22/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	02/25/95
TPH as Oil	GC-FID	0.2 *	0.2	mg/L	02/25/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	02/22/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	02/22/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	02/22/95
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	02/22/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/21/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/24/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/24/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/24/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/24/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/24/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/24/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/24/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit



## KLEINFELDER, INC.

SAMPLE ID: 4131  
 AEN LAB NO: 9502205-02  
 AEN WORK ORDER: 9502205  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 02/15/95  
 DATE RECEIVED: 02/16/95  
 REPORT DATE: 03/06/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/22/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	02/25/95
TPH as Oil	GC-FID	ND	0.2	mg/L	02/25/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	02/22/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	02/22/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	02/22/95
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	02/22/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/21/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/24/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/24/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/24/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/24/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/24/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/24/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/24/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4132  
 AEN LAB NO: 9502205-03  
 AEN WORK ORDER: 9502205  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 02/15/95  
 DATE RECEIVED: 02/16/95  
 REPORT DATE: 03/06/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/22/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	02/25/95
TPH as Oil	GC-FID	ND	0.2	mg/L	02/25/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	02/22/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	02/22/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	02/22/95
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	02/22/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/21/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit  
 \* = Value at or above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 4133  
 AEN LAB NO: 9502205-04  
 AEN WORK ORDER: 9502205  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 02/15/95  
 DATE RECEIVED: 02/16/95  
 REPORT DATE: 03/06/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	02/22/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	02/25/95
TPH as Oil	GC-FID	ND	0.2	mg/L	02/25/95
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	02/22/95
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	02/22/95
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	02/22/95
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	02/22/95
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	02/21/95
Polychlorinated Biphenyls	EPA 608				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	02/25/95
Aroclor 1221	11104-28-2	ND	0.5	ug/L	02/25/95
Aroclor 1232	11141-16-5	ND	0.5	ug/L	02/25/95
Aroclor 1242	53469-21-9	ND	0.5	ug/L	02/25/95
Aroclor 1248	12672-29-6	ND	0.5	ug/L	02/25/95
Aroclor 1254	11097-69-1	ND	0.5	ug/L	02/25/95
Aroclor 1260	11096-82-5	ND	0.5	ug/L	02/25/95

ND = Not detected at or above the reporting limit

\* = Value at or above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9502205

CLIENT PROJECT ID: 10-1682-03/035

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

## QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9502205  
DATE EXTRACTED: 02/22/95  
INSTRUMENT: C  
MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
02/25/95	4130	01	102
02/25/95	4131	02	97
02/25/95	4132	03	106
02/25/95	4133	04	86
QC Limits:			73-129

DATE EXTRACTED: 02/17/95  
DATE ANALYZED: 02/17/95  
SAMPLE SPIKED: LCS  
INSTRUMENT: C

## Laboratory Control Sample

Analyte	Spike Added (mg/L)	Percent Recovery	QC Limits Percent Recovery
Diesel	1.68	102	65-103

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

QUALITY CONTROL DATA

METHOD: SM 5520

AEN JOB NO: 9502205  
 DATE EXTRACTED: 02/02/95  
 DATE ANALYZED: 02/03/95  
 SAMPLE SPIKED: DI WATER  
 INSTRUMENT: IR  
 MATRIX: WATER

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Oil	6.9	92	<1	80-109	5

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.



[illegible]

692

10-1682-03

**INDUSTRIAL ASPHALT**

Quarterly Ground Water Monitoring

Laboratory Analyses

November 1994

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# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

**FILE COPY** PAGE 1

KLEINFELDER, INC.  
7133 KOLL CTR PARKWAY, STE 100  
PLEASANTON, CA 94566

ATTN: GUY JETT  
CLIENT PROJ. ID: 10-1682-03/035  
CLIENT PROJ. NAME: IND. ASPHALT  
C.O.C. NUMBER: 715  
P.O. NUMBER: R2004

REPORT DATE: 12/16/94

DATE(S) SAMPLED: 11/21/94-11/22/94

DATE RECEIVED: 11/23/94

AEN WORK ORDER: 9411346

### PROJECT SUMMARY:

On November 23, 1994, this laboratory received 9 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s).

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## KLEINFELDER, INC.

SAMPLE ID: 652395  
 AEN LAB NO: 9411346-01  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/21/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/04/94
TPH as Diesel	GC-FID	ND	0.05	mg/L	12/05/94
TPH as Oil	GC-FID	ND	0.2	mg/L	12/05/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/30/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/30/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/30/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/30/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/30/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/30/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/30/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 652382  
 AEN LAB NO: 9411346-02  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/21/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/04/94
TPH as Diesel	GC-FID	0.08 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	0.2 *	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	0.8 *	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/30/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/30/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/30/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/30/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/30/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/30/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/30/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit



## KLEINFELDER, INC.

SAMPLE ID: 12206 MW-10  
 AEN LAB NO: 9411346-03  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/21/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/04/94
TPH as Diesel	GC-FID	2.0 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	0.5 *	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	0.9 *	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	2 *	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/30/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/30/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/30/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/30/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/30/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/30/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/30/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 12211  
 AEN LAB NO: 9411346-04  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/21/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/04/94
TPH as Diesel	GC-FID	ND	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	ND	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/30/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/30/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/30/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/30/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/30/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/30/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/30/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 12221 MW-16  
 AEN LAB NO: 9411346-06  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/22/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/05/94
TPH as Diesel	GC-FID	0.06 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	ND	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/29/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/29/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/29/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/29/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/29/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/29/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/29/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

KLEINFELDER, INC.

SAMPLE ID: 12231      MW-14 (dup)  
 AEN LAB NO: 9411346-08  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/22/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/05/94
TPH as Diesel	GC-FID	0.09 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	ND	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/29/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/29/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/29/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/29/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/29/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/29/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/29/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 12236 MW-8  
 AEN LAB NO: 9411346-09  
 AEN WORK ORDER: 9411346  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/22/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/16/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/05/94
TPH as Diesel	GC-FID	1.1 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	1.5 *	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	0.5 *	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	1 *	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/29/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/29/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/29/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/29/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/29/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/29/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/29/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9411346

CLIENT PROJECT ID: 10-1682-03/035

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9411346  
DATE EXTRACTED: 12/04/94; 12/05/94  
INSTRUMENT: C.D  
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			n-Pentacosane
12/05/94	652395	01	93
12/06/94	652382	02	99
12/06/94	12206	03	105
12/06/94	12211	04	103
12/06/94	12216	05	99
12/06/94	12221	06	96
12/06/94	12226	07	96
12/06/94	12231	08	98
12/06/94	12236	09	113
QC Limits:			30-120

DATE EXTRACTED: 12/04/94  
DATE ANALYZED: 12/06/94  
SAMPLE SPIKED: DI WATER  
INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	2.01	92	4	65-103	12

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.



## QUALITY CONTROL DATA

AEN JOB NO: 9411346  
DATE EXTRACTED: 12/04/94  
DATE ANALYZED: 12/04/94  
MATRIX: WATER

Method Spike Recovery Summary  
Method: SM 5520

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Oil	7.1	93	2	83-107	5

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 8080

AEN JOB NO: 9411346  
 DATE EXTRACTED: 11/28/94  
 INSTRUMENT: B  
 MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			2,4,5,6-Tetrachloro-meta-xylene
11/30/94	652395	01	103
11/30/94	652382	02	98
11/30/94	12206	03	103
11/30/94	12211	04	98
11/30/94	12216	05	96
11/29/94	12221	06	97
11/29/94	12226	07	58
11/29/94	12231	08	104
11/29/94	12236	09	98
QC Limits:			30-131

DATE EXTRACTED: 11/28/94  
 DATE ANALYZED: 11/29/94  
 SAMPLE SPIKED: LCS  
 INSTRUMENT: B

## Laboratory Control Sample

Analyte	Spike Added (ug/L)	Percent Recovery	QC Limits
			Percent Recovery
A1260	4.00	100	53-133

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

\*\*\* END OF REPORT \*\*\*

PROJ NO 10-1482-03/035		PROJECT NAME Industrial Asphalt		NO OF CON- TAINERS	ANALYSIS PCB'S TPH-D O&G	REMARKS
L P NO (P.O. NO.) R2004		SAMPLERS: (Signature/Number) J Todd Davis / 2671				
DATE MM DD YY	SAMPLE ID TIME HH MM SS	SAMPLE ID				
11/21/94	10:15	652395		5		01A - E
	1:30	652382		5		02A - E
	4:00	12206		5		03A - E
↓	4:30	122211 (12211)		5		04A - E
11/22/94	10:30	12216		5		05A - E
	12:15	12221		5		06A - E
	1:30	12226		5		07A - E
	2:00	12231		5		08A - E
↓	3:00	12236		5		09A - E
						Per project history: TPH as diesel + oil O+G by 5520CF DSH 11/23/94

Relinquished by: (Signature) J Todd Davis	Date/Time 11/23/94 8:20	Received by: (Signature) Guy Jett	Remarks Standard T.A.T. Attn. Guy Jett	Send Results To Guy Jett KLEINFELDER 7133 KOLL CENTER PARKWAY SUITE 100 PLEASANTON, CA 94566 (510) 484-1700
Relinquished by: (Signature) Michael E. McMillan	Date/Time 11-23-94 9:50	Received by: (Signature) Michael E. McMillan		
Relinquished by: (Signature) Michael E. McMillan	Date/Time 11-23-94 13:15	Received for Laboratory by: (Signature) Denise Harrington		

1911546  
3 IL Ambers acidified  
with HCl. Two IL  
Ambers Not Preserved.

# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

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PAGE 1

10-1682-03

Lab Data

KLEINFELDER, INC.  
7133 KOLL CTR PARKWAY, STE 100  
PLEASANTON, CA 94566

REPORT DATE: 12/14/94

DATE(S) SAMPLED: 11/23/94

DATE RECEIVED: 11/23/94

AEN WORK ORDER: 9411358

ATTN: GUY JETT  
CLIENT PROJ. ID: 10-1682-03/035  
CLIENT PROJ. NAME: IND. ASPHALT  
C.O.C. NUMBER: 626  
P.O. NUMBER: R2006

### PROJECT SUMMARY:

On November 23, 1994, this laboratory received 3 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s).

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## KLEINFELDER, INC.

SAMPLE ID: 12241 MW-2  
 AEN LAB NO: 9411358-01  
 AEN WORK ORDER: 9411358  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/23/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/05/94
TPH as Diesel	GC-FID	19 *	0.3	mg/L	12/06/94
TPH as Oil	GC-FID	13 *	1	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	34 *	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	45 *	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/29/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/29/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/29/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/29/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/29/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/29/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/29/94

Reporting limits elevated for diesel/oil due to high levels of target compounds; sample run at dilution.

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

KLEINFELDER, INC.

SAMPLE ID: 25961 MW-2 (due)  
 AEN LAB NO: 9411358-02  
 AEN WORK ORDER: 9411358  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/23/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/05/94
TPH as Diesel	GC-FID	4.3 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	2.5 *	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	5.2 *	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	6.7 *	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/29/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/29/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/29/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/29/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/29/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/29/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/29/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit



## KLEINFELDER, INC.

SAMPLE ID: 650510 MW-3  
 AEN LAB NO: 9411358-03  
 AEN WORK ORDER: 9411358  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/23/94  
 DATE RECEIVED: 11/23/94  
 REPORT DATE: 12/14/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	12/05/94
TPH as Diesel	GC-FID	2.5 *	0.05	mg/L	12/06/94
TPH as Oil	GC-FID	1.9 *	0.2	mg/L	12/06/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	12/06/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	12/06/94
Hydrocarbons (IR)	SM 5520CF	7.0 *	0.5	mg/L	12/06/94
Oil & Grease (IR)	SM 5520C	9.3 *	0.5	mg/L	12/06/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/28/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/29/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/29/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/29/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/29/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/29/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/29/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/29/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9411358

CLIENT PROJECT ID: 10-1682-03/035

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9411358  
DATE EXTRACTED: 12/05/94  
INSTRUMENT: C  
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
12/06/94	12241	01	I
12/06/94	25961	02	112
12/06/94	650510	03	105
QC Limits:			30-120

I: Surrogate out due to matrix interference

DATE EXTRACTED: 12/04/94  
DATE ANALYZED: 12/06/94  
SAMPLE SPIKED: DI WATER  
INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	2.01	92	4	65-103	12

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

## QUALITY CONTROL DATA

AEN JOB NO: 9411358  
DATE EXTRACTED: 12/04/94  
DATE ANALYZED: 12/04/94  
MATRIX: WATER

Method Spike Recovery Summary  
Method: SM 5520

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Oil	7.1	93	2	83-107	5

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

## QUALITY CONTROL DATA

METHOD: EPA 8080

AEN JOB NO: 9411358  
DATE EXTRACTED: 11/28/94  
INSTRUMENT: B  
MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			2,4,5,6-Tetrachloro-meta-xylene
11/29/94	12241	01	91
11/29/94	25961	02	97
11/29/94	650510	03	100
QC Limits:			30-131

DATE EXTRACTED: 11/28/94  
DATE ANALYZED: 11/29/94  
SAMPLE SPIKED: LCS  
INSTRUMENT: B

## Laboratory Control Sample

Analyte	Spike Added (ug/L)	Percent Recovery	QC Limits
			Percent Recovery
A1260	4.00	101	53-133

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

\*\*\* END OF REPORT \*\*\*

AEN # 9411358

3 1L Ambers acidified  
with HCl  
2 1L Ambers Not Preserved

[illegible]

3 IL Ambers acidified  
with HCl  
2 IL Ambers Not Preserved





# American Environmental Network

## Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

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PAGE 1

10-1682-03  
Lab Data

KLEINFELDER, INC.  
7133 KOLL CTR PARKWAY, STE 100  
PLEASANTON, CA 94566

REPORT DATE: 12/02/94

DATE(S) SAMPLED: 11/14/94

DATE RECEIVED: 11/15/94

AEN WORK ORDER: 9411201

ATTN: GUY JETT  
CLIENT PROJ. ID: 10-1682-03/035  
CLIENT PROJ. NAME: IND. ASPHALT  
C.O.C. NUMBER: 716  
P.O. NUMBER: R1987

#### PROJECT SUMMARY:

On November 15, 1994, this laboratory received 3 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s).

Please see quality control report for a summary of QC data pertaining to this project.

If you have any questions, please contact Client Services at (510) 930-9090.

  
Larry Klein  
Laboratory Director

## KLEINFELDER, INC.

SAMPLE ID: 652490  
 AEN LAB NO: 9411201-01  
 AEN WORK ORDER: 9411201  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/14/94  
 DATE RECEIVED: 11/15/94  
 REPORT DATE: 12/02/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/16/94
TPH as Diesel	GC-FID	ND	0.05	mg/L	11/19/94
TPH as Oil	GC-FID	ND	0.2	mg/L	11/19/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	11/22/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	11/22/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	11/23/94
Oil & Grease (IR)	SM 5520C	ND	0.5	mg/L	11/23/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/16/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/17/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/17/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/17/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/17/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/17/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/17/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/17/94

ND = Not detected at or above the reporting limit  
 \* = Value above reporting limit

KLEINFELDER, INC.

SAMPLE ID: 652496  
 AEN LAB NO: 9411201-02  
 AEN WORK ORDER: 9411201  
 CLIENT PROJ. ID: 10-1682-03/035

mw-4

DATE SAMPLED: 11/14/94  
 DATE RECEIVED: 11/15/94  
 REPORT DATE: 12/02/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/16/94
TPH as Diesel	GC-FID	ND	0.05	mg/L	11/19/94
TPH as Oil	GC-FID	ND	0.2	mg/L	11/19/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	11/22/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	11/22/94
Hydrocarbons (IR)	SM 5520CF	ND	0.5	mg/L	11/23/94
Oil & Grease (IR)	SM 5520C	0.5 *	0.5	mg/L	11/23/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/16/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/17/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/17/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/17/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/17/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/17/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/17/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/17/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

## KLEINFELDER, INC.

SAMPLE ID: 652390 *mw-1*  
 AEN LAB NO: 9411201-03  
 AEN WORK ORDER: 9411201  
 CLIENT PROJ. ID: 10-1682-03/035

DATE SAMPLED: 11/14/94  
 DATE RECEIVED: 11/15/94  
 REPORT DATE: 12/02/94

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/16/94
TPH as Diesel	GC-FID	0.6 *	0.05	mg/L	11/29/94
TPH as Oil	GC-FID	0.6 *	0.2	mg/L	11/29/94
#Water Extrn for HCs (IR)	SM 5520CF	-		Extrn Date	11/22/94
#Water Extrn for O&G (IR)	SM 5520C	-		Extrn Date	11/22/94
Hydrocarbons (IR)	SM 5520CF	3 *	0.5	mg/L	11/23/94
Oil & Grease (IR)	SM 5520C	5 *	0.5	mg/L	11/23/94
#Extraction for Pest/PCBs	EPA 3510	-		Extrn Date	11/16/94
Polychlorinated Biphenyls	EPA 8080				
Aroclor 1016	12674-11-2	ND	0.5	ug/L	11/17/94
Aroclor 1221	11104-28-2	ND	0.5	ug/L	11/17/94
Aroclor 1232	11141-16-5	ND	0.5	ug/L	11/17/94
Aroclor 1242	53469-21-9	ND	0.5	ug/L	11/17/94
Aroclor 1248	12672-29-6	ND	0.5	ug/L	11/17/94
Aroclor 1254	11097-69-1	ND	0.5	ug/L	11/17/94
Aroclor 1260	11096-82-5	ND	0.5	ug/L	11/17/94

ND = Not detected at or above the reporting limit

\* = Value above reporting limit

AEN (CALIFORNIA)  
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9411201

CLIENT PROJECT ID: 10-1682-03/035

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

## QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9411201  
 DATE EXTRACTED: 11/16/94  
 INSTRUMENT: C  
 MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			n-Pentacosane
11/19/94	652490	01	73
11/19/94	652496	02	71
11/29/94	652390	03	69
QC Limits:			30-120

DATE EXTRACTED: 11/14/94  
 DATE ANALYZED: 11/18/94  
 SAMPLE SPIKED: DI WATER  
 INSTRUMENT: C

## Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	1.72	93	4	65-103	12

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.



## QUALITY CONTROL DATA

METHOD: EPA 8080

AEN JOB NO: 9411201  
DATE EXTRACTED: 11/16/94  
INSTRUMENT: B  
MATRIX: WATER

## Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery
			2,4,5,6-Tetrachloro-meta-xylene
11/17/94	652490	01	106
11/17/94	652496	02	109
11/17/94	652390	03	95
QC Limits:			30-131

DATE EXTRACTED: 11/11/94  
DATE ANALYZED: 11/12/94  
SAMPLE SPIKED: DI WATER  
INSTRUMENT: B

## Method Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
A1260	4.00	101	<1	53-133	16

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit.

\*\*\* END OF REPORT \*\*\*



9411201

PROJ NO 10-168203/035		PROJECT NAME Industrial Asphalt		NO OF CON- TAINERS	ANALYSIS PCB's TPH-D O & G (5500cf)	REMARKS 3 1 Liter Ambers Acidified w/HCl 2 1 Liter Ambers Not Acidified.
LP NO P.O. NO. R1987		SAMPLERS: (Signature/Number) Todd Davis / 2671				
DATE MM DD YY	SAMPLE I.D. TIME HH MM SS	SAMPLE I.D.				
11/14/91	12:50	652490 01A-E	5			01A-E
	2:10	652496 02A-E	5			02A-E
	3:45	652390 03A-E	5			03A-E

Relinquished by: (Signature) Todd Davis	Date/Time 11/15/91 10:40	Received by: (Signature) [Signature]	Remarks Standard T.A.T. Attn. Guy Jett	Send Results To Guy Jett KLEINFELDER 7133 KOLL CENTER PARKWAY SUITE 100 PLEASANTON, CA 94566 (510) 484-1700
Relinquished by: (Signature) [Signature]	Date/Time 11/15/91 10:40	Received by: (Signature) [Signature]		
Relinquished by: (Signature) [Signature]	Date/Time 11-15-91	Received for Laboratory by: (Signature) Gina Gillespie 1040		