



An employee owned company
June 12, 1996

File No. 10-3003-37/003

Mr. John Moore
J Patrick Land Company
5627 Stoneridge Drive, Suite 320
Pleasanton, California 94588

**SUBJECT: Environmental Investigation Report
Dublin Boulevard Property
Dublin, California**

Dear Mr. Moore:

Kleinfelder, Inc. (Kleinfelder) is pleased to present this letter report for groundwater sample collection and analysis at the Dublin Boulevard property. The project site is located on the southwest corner of the intersection of Dublin Boulevard and Scarlett Drive in Dublin, California (see Site Location Map, Plate 1).

This work was conducted in accordance with our work plan number 10-3003-37/003 dated May 30, 1996. This work plan was reviewed by Eva Chu of Alameda County Environmental Health Department (ACEHD). As described in detail below, our scope of work included collecting four soil samples and eight groundwater samples from borings KHP-7 through KHP-14 (see Site Plan, Plate 2). All groundwater samples were analyzed for halogenated volatile organic compounds (VOCs) and Total Petroleum Hydrocarbons as diesel (TPH-d). The groundwater samples from borings KHP-7, KHP-8, and KHP-14, also were analyzed for the aromatic volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX). Soil samples obtained from borings KHP-7, KHP-8, KHP-11 and KHP-14 were placed on hold at the laboratory pending our receipt and review of the results of the groundwater analysis.

Kleinfelder was granted permission to collect a sample from the U-Haul facility just south of the site. Permission to collect samples from the El Monte RV property located adjacent on the west of the site was not granted, therefore, the two borings (KHP-12 and KHP-13) which Kleinfelder proposed to advance on this property were moved onto the project site.

BACKGROUND

Kleinfelder recently completed a Phase I Environmental Site Assessment and a soil and groundwater investigation at the site. The results of these assessments were presented in

our reports titled "Phase I Environmental Site Assessment Report, Dublin Boulevard Property, Dublin, California", dated March 29, 1996, and "Environmental Investigation Report, Dublin Boulevard Property, Dublin, California", dated May 8, 1996. The results of these assessments indicated that groundwater beneath the site appears to be impacted with chlorinated solvents. However, no on-site sources of contamination have been established as analysis of soil samples from the site have not revealed the presence of chlorinated solvents at concentrations at or above the laboratory reporting limit.

Based on these analytical results, Ms. Chu requested that additional investigative work be conducted at the site to help evaluate the possible source area and the extent of the chlorinated solvent and hydrocarbon plume beneath the site vicinity. This report presents the results of that additional work.

SCOPE OF WORK

The purpose of the sampling and analysis performed during this investigation was to evaluate the possible source area and the extent of the chlorinated solvent and hydrocarbon plume beneath the site vicinity.

The following tasks were performed for this investigation:

- Eight groundwater samples were collected from borings KHP-7 through KHP-14 for chemical analysis;
- Four soil samples were collected and held at the laboratory for possible analysis;
- Groundwater samples were analyzed; and
- This letter report was prepared describing field procedures and analytical results.

FIELD ACTIVITIES

In accordance with our work plan dated May 30, 1996, four additional soil samples and eight additional groundwater samples were collected from the site on June 4, 1996 (seven samples on-site and one on the U-Haul property). The samples were collected from the locations shown on the Site Plan (Plate 2) using a Cone Penetrometer Test (CPT) rig equipped with 2- inch probes. Prior to advancing the CPT probes, a permit was obtained from the Alameda County Flood Control and Water Conservation District Zone 7.

Site work performed prior to advancing the CPT probes included clearing of utility locations and concrete coring. A representative of CU Surveys cleared the sampling locations for underground utilities. In addition, borings KHP-7, KHP-8, KHP-9, KHP-11, and KHP-14 were hand-augered to a depth of approximately five feet bgs prior to advancing the CPT probes to establish if underground utilities were present at these

locations. Borings KHP-10, KHP-12, KHP-13 and KHP-14 were located on a concrete surface and were cored prior to advancing the CPT probes.

Soil samples were collected from borings KHP-7, KHP-8, KHP-11, and KHP-14 using the CPT rig. These samples were obtained from the 3.5 to 5.0 foot depth interval and held for chemical analysis pending Kleinfelder's receipt and review of groundwater analytical results from these borings. The soil samples collected for chemical analysis were capped with teflon and plastic end caps, labeled and placed into an ice cooled chest.

Groundwater samples were collected from the same probes using the Hydropunch™ system. The sampling tool was driven into the water bearing zone using the CPT rig. The Hydropunch™ unit uses an airtight and watertight sealed intake screen and sample chamber that is isolated from the surrounding environment as the tool is advanced. When the desired sampling location within the water bearing zone is reached, the Hydropunch sampler is advanced an additional 6 inches and then opened. Once the seal between the drive cone and the body of the tool is broken, groundwater flows from the surrounding formation into the probe. After the sample is collected, the unit is closed and retrieved from the bore hole.

The groundwater samples were retrieved from the sample chamber using a stainless steel bailer and decanted into the samples bottles provided by the laboratory. The sample bottles were appropriately labeled and placed into an ice cooled chest for transport to the laboratory.

The sampling equipment was steam cleaned or washed in an Alconox water mixture and rinsed prior to use at each sampling location and prior to leaving the site. The borings were backfilled with cement grout after the samples were collected.

The soil cuttings from the borings were placed on visqueen and left on-site for future disposal. Our review of the analytical results for the soil samples collected at the site indicates that the soil has not been impacted and can be disposed of on-site. One 55-gallon drum of steam cleaning water was stored on-site pending receipt of analytical results. Kleinfelder recommends that a sample of the rinseate be collected for analysis. If no volatile organic compounds are detected in the sample, then the rinseate can be disposed of on-site. Disposal of the soil and steam cleaning water is the responsibility of J Patrick Land Company.

CHEMICAL ANALYSIS AND RESULTS

The four additional soil samples and eight groundwater samples were submitted to McCampbell Analytical, a laboratory certified by the State of California to perform the requested analysis. The samples were analyzed as noted below:

- All groundwater samples for halogenated VOCs using Environmental Protection Agency (EPA) Test Method 8010;
- All groundwater samples for Total Petroleum Hydrocarbons as diesel using Modified EPA Test Method 8015; and
- Groundwater samples from KHP-7, KHP-8, and KHP-14 for aromatic volatile organic compounds benzene, toluene, ethylbenzene and xylenes using EPA Test Method 8020.

The analytical results are summarized in Table 1 below. The results of groundwater samples collected during previous investigations are presented in Table 1 for reference purposes. Copies of the laboratory data sheets and the chain-of-custody forms are presented in Appendix A.

<p style="text-align: center;">TABLE 1 Summary of Groundwater Analytical Results Dublin Boulevard Property Dublin, California</p>									
Boring Number	Date Collected	DCE ¹ μg/L ⁸	DCA ² μg/L	TCE ³ μg/L	PCE ⁴ μg/L	TDS ⁵ mg/L ⁹	Toluene μg/L	TPH-d ⁶ μg/L	TRPH ⁷ mg/L
B-1	3/5/96	<0.5	<0.5	<0.5	<0.5	NA	0.63	83	<1.0
B-2	3/5/96	<0.5	<0.5	<0.5	<0.5	NA	<0.5	170	3.2
B-4	3/5/96	2.6	<0.5	13	27	NA	<0.5	1,400	<1.0
B-5	5/1/96	4.4	<0.5	11	66	1,900	NA	NA	NA
B-6	5/1/96	4.1	<0.5	14	53	1,700	NA	NA	NA
KHP-7	6/4/96	4.3	2.0	9.3	93	NA	<0.5	<50	NA
KHP-8	6/4/96	5.1	<0.5	11	100	NA	<0.5	<50	NA
KHP-9	6/4/96	2.0	<0.5	7.7	41	NA	<0.5	<50	NA
KHP-10	6/4/96	<0.5	<0.5	1.1	3.5	NA	<0.5	<50	NA
KHP-11	6/4/96	1.9	<0.5	6.2	52	NA	<0.5	<50	NA
KHP-12	6/4/96	0.94	<0.5	4.9	19	NA	<0.5	<50	NA
KHP-13	6/4/96	3.3	<0.5	10	60	NA	<0.5	<50	NA
KHP-14	6/4/96	4.5	<0.5	11	80	NA	<0.5	<50	NA
MCL		6	0.5	5	5	NE	1,000	NE	NE

Notes:

1. DCE = Cis 1,2-Dichloroethene
 2. DCA = 1,2-Dichloroethane
 3. TCE = Trichloroethene
 4. PCE = Tetrachloroethene
 5. TDS = Total Dissolved Solids
 6. TPH-d = Total Petroleum Hydrocarbons quantified as diesel
 7. TRPH = Total Recoverable Petroleum Hydrocarbons
 8. μg/L = Micrograms per liter, approximately equivalent to parts per billion
 9. mg/L = Milligrams per liter, approximately equivalent to parts per million
- NA = Not Analyzed for noted compound
 NE = Not Established

CONCLUSIONS AND RECOMMENDATIONS

In Kleinfelder's opinion, the concentrations of chlorinated solvents detected in the groundwater samples collected from the southwestern corner of the project site do not appear to be the result of an on-site spill for the following reasons:

- The absence of these compounds in the soil samples analyzed;
- The absence of these compounds in the groundwater samples collected from the up-gradient borings (B-1 and B-2);
- The distribution of chlorinated solvents in the groundwater across the site suggests that groundwater flow direction on-site may vary seasonally and chemicals of concern may be from an off-site source; and
- Lack of historical chemical usage on the site of these chemicals of concern.

The presence of the chlorinated solvents in the groundwater samples collected from this corner of the site may be due to a release incident on the adjoining properties or another nearby property. Numerous nearby facilities have been reported as having had release incidents in the past and it is possible that plumes have migrated onto the site from one or more of these facilities. In addition, it is possible that an undocumented release may have occurred at one of these facilities in the past.

Kleinfelder recommends that closure of this issue be discussed with Ms. Chu of the ACEHD. As requested, Kleinfelder will contact Ms. Chu to arrange a meeting.

LIMITATIONS

This report was prepared in general accordance with the accepted standard of practice that existed in Northern California at the time of the investigation. 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 J Patrick Land Company 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 J Patrick Land Company'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 document may be used only by J Patrick Land Company and only for the purpose stated, within a reasonable time from its issuance. Land use, site conditions (both on


and offsite) or other factors may change over time, and additional work may be required with the passage of time.

Any party other than J Patrick Land Company who wishes to use this document shall notify Kleinfelder of such intended use by executing the "Application of Authorization to Use" which follows as Appendix B. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated document 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 document by any unauthorized party.

We have enjoyed working with you in this project. Please call Lita (510) 484-1700 if you have any questions or if we can be of further service.

Sincerely,

KLEINFELDER, INC.



Lita D. Freeman, R.E.A.
Project Manager



Christina J. Kennedy, R.G.
Senior Client Manager

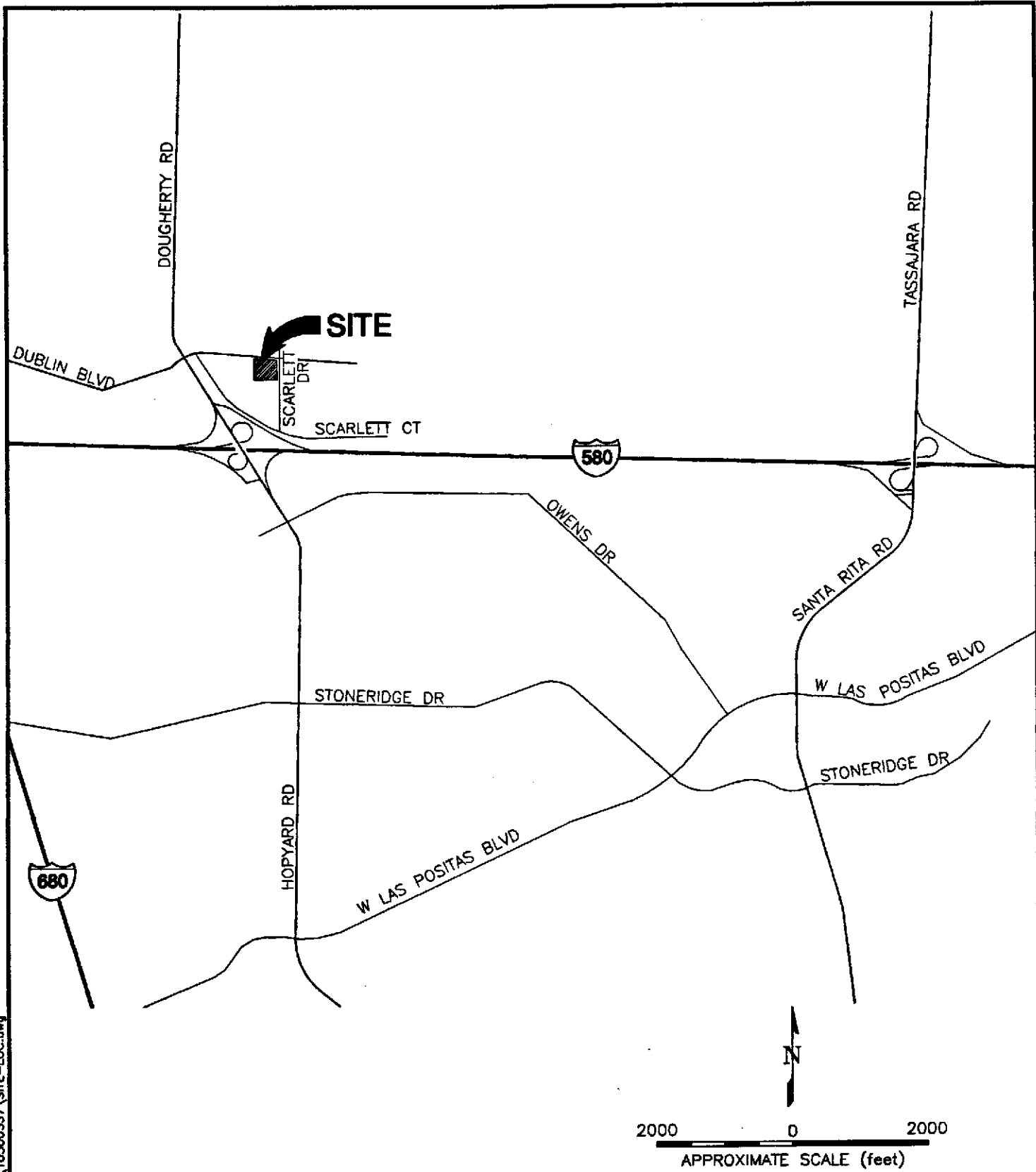
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PLATES:

Plate 1	Site Location Map
Plate 2	Site Plan

APPENDICES:

Appendix A	Laboratory Data Sheets and Chain-of-Custody Forms
Appendix B	Application for Authorization to Use



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SITE LOCATION MAP

PLATE

1

DRAFTED BY: L. Sue DATE: 5-3-96
 CHECKED BY: L. Freeman DATE: 5-4-96

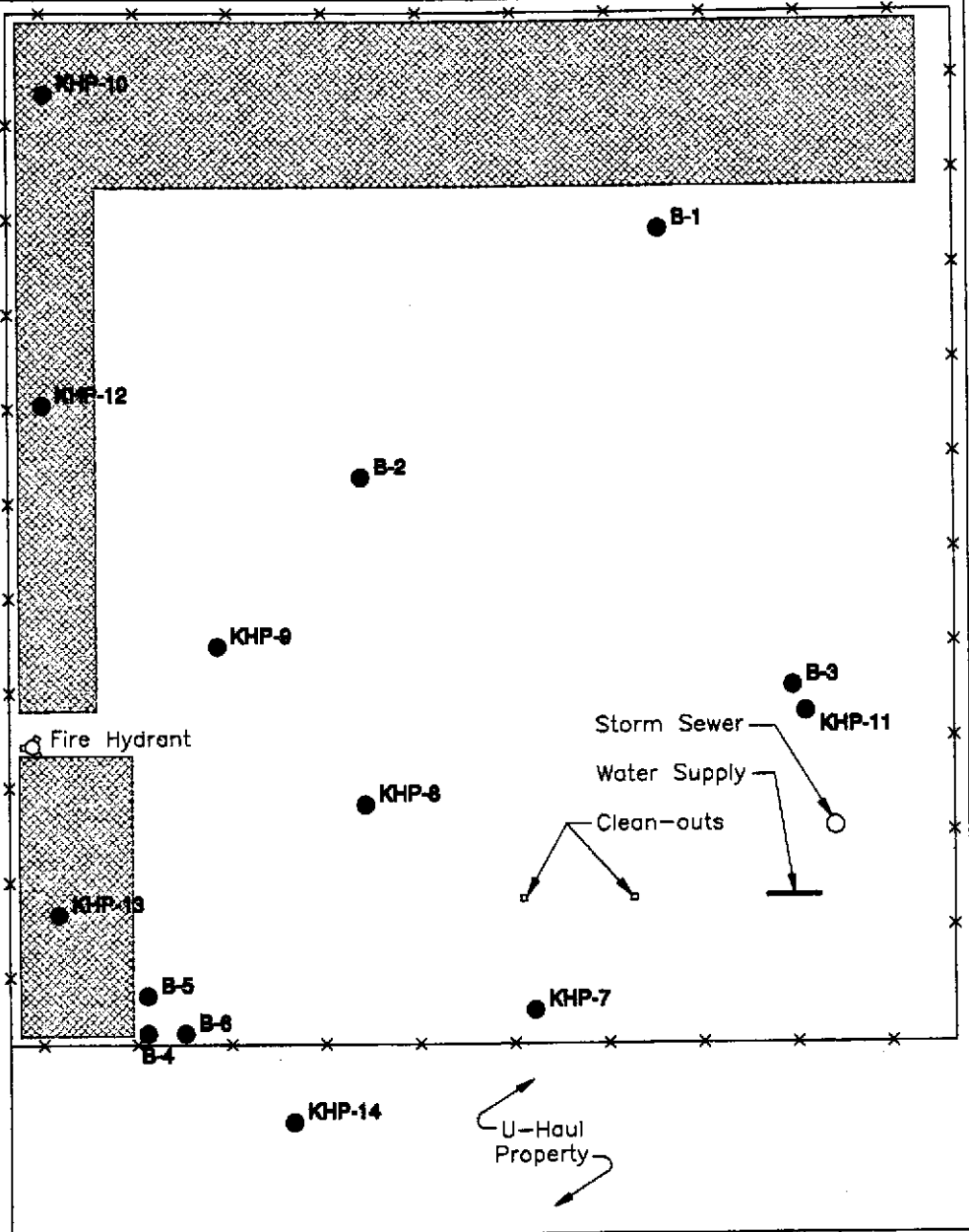
DUBLIN BOULEVARD PROPERTY
 DUBLIN, CALIFORNIA

PROJECT NO. 10-300337-002

DUBLIN BOULEVARD



El Monte RV Property



SCARLETT DRIVE

Drainage Channel

U-Haul Property

LEGEND

- FENCE
- CONCRETE PAD
- SOIL BORING
- INFERRED GROUNDWATER FLOW DIRECTION

50 0 50
APPROXIMATE SCALE (feet)

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C:\-KA_PROJ\PLEAS\10300337\SITEPLAN.dwg



SITE PLAN

PLATE

2

DRAFTED BY: L. Sue DATE: 5-3-96
CHECKED BY: L. Freeman DATE: 6-11-96

DUBLIN BOULEVARD PROPERTY
DUBLIN, CALIFORNIA
PROJECT NO. 10-300337

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

06/12/96

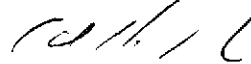
Dear Lita:

Enclosed are:

- 1). the results of 8 samples from your # 10-3003-37/003; Dublin Scarlett project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,



Edward Hamilton

Kleinfelder 7133 Koll Center Parkway, # 100 Pleasanton, CA 94566	Client Project ID: # 10-3003-37/003; Dublin Scarlett	Date Sampled: 06/04/96
	Client Contact: Lita Freeman	Date Received: 06/05/96
	Client P.O: # R3668	Date Extracted: 06/05/96
		Date Analyzed: 06/05/96

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
65659	KHP-8	W	---	ND	ND	ND	ND	99
65661	KHP-7	W	---	ND	ND	ND	ND	98
65663	KHP-14	W	---	ND	ND	ND	ND	97
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	0.5	0.5	0.5	0.5	0.5	
	S	1.0 mg/kg	0.005	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

Kleinfelder 7133 Koll Center Parkway, # 100 Pleasanton, CA 94566	Client Project ID: # 10-3003-37/003; Dublin Scarlett	Date Sampled: 06/04/96
	Client Contact: Lita Freeman	Date Received: 06/05/96
	Client P.O.: # R3668	Date Extracted: 06/05/96
		Date Analyzed: 06/05/96

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	65656	65659	65661	65663
Client ID	KHP-11	KHP-8	KHP-7	KHP-14
Matrix	W	W	W	W
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform ^(b)	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride ^(c)	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether ^(d)	ND	ND	ND	ND
Chloroform ^(e)	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	2.0	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	1.9	5.1	4.3	4.5
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride ^(f)	ND< 1	ND< 1	ND< 1	ND< 1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	52	100	93	80
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	6.2	11	9.3	11
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride ^(g)	ND	ND	ND	ND
% Recovery Surrogate	102	101	100	104
Comments	i		i	

* water and vapor samples are reported in ug/L, soil samples in ug/kg and all TCLP extracts in ug/L.

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~ 5 vol. % sediment.

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/05/96

Matrix: Water

Analyte	Concentration (ug/L) Sample (#65629)			Amount Spiked	% Recovery		RPD
	MS	MSD			MS	MSD	
TPH (gas)	0.0	101.5	104.8	100.0	101.5	104.8	3.2
Benzene	0.0	9.4	9.5	10.0	94.0	95.0	1.1
Toluene	0.0	9.4	9.6	10.0	94.0	96.0	2.1
Ethyl Benzene	0.0	9.3	9.4	10.0	93.0	94.0	1.1
Xylenes	0.0	27.6	28.1	30.0	92.0	93.7	1.8
TPH (diesel)	0	160	156	150	107	104	2.8
TRPH (oil & grease)	0	23800	24300	23700	100	103	2.1

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

QC REPORT FOR EPA 8010/8020/EDB

Date: 06/05/96

Matrix: Water

Analyte	Concentration (ug/L)				% Recovery		
	Sample (#65517)	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0.0	11.0	12.0	10.0	110	120	8.7
Trichloroethene	0.0	9.6	10.0	10.0	96	100	4.1
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0.0	10.5	10.7	10.0	105	107	1.9
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

$$\% \text{ Rec.} = (\text{MS} - \text{Sample}) / \text{amount spiked} \times 100$$

$$\text{RPD} = (\text{MS} - \text{MSD}) / (\text{MS} + \text{MSD}) \times 2 \times 100$$

APPLICATION FOR AUTHORIZATION TO USE

**Environmental Investigation Report
Dublin Boulevard Property
Dublin, California
File Number: 10-3003-37/003
June 12, 1996**

**TO: Kleinfelder, Inc.
7133 Koll Center Parkway, Suite 100
Pleasanton, California 94566
(510) 484-1700**

FROM:

[Please clearly identify name and address of person/entity applying for permission to use of copy this document]

To Whom It Concerns:

**Applicant _____ hereby applies for permission to :
[State here the use(s) contemplated]**

for the purpose(s) of:

[State here why you wish to do what is contemplated as set forth above]

Applicant understands and agrees that the Environmental Investigation Report for the Dublin Boulevard Property in Dublin, California is a copyrighted document, that Kleinfelder, Inc. is the copyright owner, and that unauthorized use or copying of this document is strictly prohibited without the express written permission of Kleinfelder, Inc. Applicant understands that Kleinfelder, Inc., may withhold such permission at its sole discretion, or grant such permission upon such terms and conditions as it deems acceptable, such as the payment of a re-use fee.

Dated: _____

Applicant

by _____
Name

its _____
Title