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LIMITED PHASE II  
ENVIRONMENTAL SITE ASSESSMENT  
JORDAN RANCH  
4233 FALLON ROAD  
ALAMEDA COUNTY, CALIFORNIA

FOR  
SHEA HOMES  
January 25, 2001

Job No. 2275.901



January 25, 2001  
Job No. 2275.901

Ms Kerri Watt  
Shea Homes  
2155 Las Positas Court, Suite T  
Livermore, California 94550

Subject: Limited Phase II  
Environmental Site Assessment  
Jordan Ranch  
4233 Fallon Road  
Alameda County, California

Dear Ms Watt:

### INTRODUCTION

Berlogar Geotechnical Consultants (BGC) is pleased to present this Limited Phase II Environmental Site Assessment for the Jordan Ranch property in an unincorporated portion of Alameda County, California. The property is located on the east side of Fallon Road about 1 mile north of U.S. Interstate 580 near Dublin, California (Site Vicinity Map, Plate 1). BGC presented the results of our Phase I Environmental Site Assessment of the subject site in a report dated September 1, 2000, BGC Job No. 2275.900).

We understand that the property is proposed to be developed with single family residences, although the final density, configuration, and grading are not yet available. We also understand that the sources of potentially contaminated soil and ground water at the site probably will not be removed until after the property-title transfer; however, in order to further evaluate the potentially contaminated areas before transfer of ownership, we conducted this Limited Phase II Environmental Site Assessment. This limited phase of environmental investigation evaluates the possible presence of contaminants at selected locations consisting of the vicinity of the removed underground fuel storage tank (UST), in the area of the circular zones observed on aerial photographs, and in the vicinity of abandoned 55-gallon drums south of the stock pond on site as described in the Phase I report.

### SCOPE

This Limited Phase II Environmental Site Assessment is based on the results of our Phase I Environmental Site Assessment and our revised proposal for a Limited Phase II Environmental Site Assessment dated September 26, 2000. The Phase I Environmental Site Assessment report recommended that soil sampling be conducted at the project site to evaluate areas for possible presence of chemical contaminants. The proposal for the revised Limited Phase II Environmental Site Assessment (with additions) limited the Phase II investigation to the vicinity of the removed UST, the 55-gallon drum near the creek south of the stock pond and the circular zones west of Barn #1 and north and west of Barn #3 as described in the Phase I report. During the investigation of the removed UST, gasoline odors were detected in the sampled soils. Therefore, the testing of the soil samples

from the removed UST was revised to include total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethyl benzene, xylene (BTEX) along with the proposed testing for total petroleum hydrocarbons as diesel (TPHd).

To accomplish this limited phase of the environmental site assessment at the project site we conducted the following scope of services:

- The drilling of two soil borings, one at each end of the pit at the site of the former UST identified in the Phase I Environmental Site Assessment and collection of samples of soil in the backfill material and native soil beneath the removed tank. Samples were analyzed for TPHd, TPHg and BTEX.
- The collection of near-surface soil samples in the vicinity of a 55-gallon rusted drum located in the drainage channel south of the stock pond. Near-surface soil samples were also collected in areas of the circular zones observed on aerial photographs. These samples were analyzed for TPHd and organochlorides.
- Submission of the samples under chain-of-custody protocol to a State certified laboratory for chemical analysis.
- The interpretation of the field and laboratory data and preparation of this report presenting our findings and conclusions.

Our Phase I Environmental Assessment report recommended that additional areas of concern be sampled and evaluated. These areas included:

- In Barn #1, in the vicinity of stored fuel containers and beneath farm equipment,
- At 55-gallon drums containing unknown liquids north and east of Barn #2, and
- In the vicinity of the diesel storage drums, weed killer and other storage containers in Barn #2.

The sampling and testing of these areas were not a part of our scope for this Limited Phase 2 Environmental Assessment. We understand these areas will be sampled and tested after their suspected contaminant sources have been removed.

### PREVIOUS WORK

BGC conducted a field investigation in 1998 to evaluate the possible presence of a large landslide east of the ranch headquarters area. The investigation concluded that there was no evidence of previous landsliding in that area. A report dated July 30, 1998 (Job No. 2275.100) summarizes the results of that investigation. BGC also conducted a Phase I environmental assessment at the site (dated September 1, 2000, Job number 2275.900). No reports by other workers were found during the Phase I assessment that address environmental conditions at the project site.

The Berlogar Phase I environmental assessment report concluded the following:

Aerial photographic review suggested that the project site (outside of the ranch house and barn area in the southwest portion of the property) had been used primarily for grazing land for more than the past 40 years. Several areas of hazardous-material storage exist on site and are associated with the ranch operation at the site.

Potential soil or ground water contamination at the project site include:

- Area in the vicinity of the removed UST about 30 feet south of the ranch manager's quarters (Barn #1, Site Plan),
- Beneath the tractors and in the vicinity of storage cans and drums in Barn #1,
- Surrounding the five 55-gallon diesel storage drums, and beneath the shed-roof area of Barn #2,
- In the vicinity of 55-gallon storage drums north and east of Barn #2,
- In the stream channel approximately 600 feet south of the stock pond where a 55-gallon rusted drum is overturned, and
- In the vicinity of the circular zones observed on aerial photographs.

Based on a brief site reconnaissance, aerial photographic review, an interview with Mr. Toni Varni (attorney for the land owner), review of public records of environmental incidents in the vicinity of the project site the Phase I report concluded that there did not appear to be hazardous materials present on the site outside of the areas recommended for a Phase II investigation.

### INVESTIGATION

On December 15, 2000, two soil borings were advanced in the backfill of the removed UST south of Barn #1. The two boreholes were drilled with a truck-mounted drill rig equipped with nominal 6-inch diameter hollow-stem augers. Boring B-1 was drilled to a depth of 16½ feet near the south end of the backfilled tank pit. Boring B-2 was located about 5 feet north-northeast of Boring B-1 and was also in the backfill of the removed tank pit. Boring B-2 extended to a depth of 19½ feet. Borings B-1 and B-2 were placed to investigate possible presence of diesel in the backfill material and in the native soil beneath the removed tank. During the drilling of borings B-1 and B-2, diesel and gasoline odors were detected. Therefore, the testing of the samples from Borings B-1 and B-2 were expanded to include Total Parts Hydrocarbons gasoline (TPHg) and the volatile constituents benzene, toluene, ethyl benzene and xylene (BTEX). Soil samples were collected at approximately 5 foot intervals starting at a depth of 5½ feet in Boring B-1 and 8½ feet in Boring B-2. Logs of Borings B-1 and B-2 are presented on Plates 3 and 4.

During drilling in the tank pit, soil samples were collected for classification and chemical analysis. Samples were retrieved with a split-spoon sampler containing three, 2½-inch-diameter by 6-inch-long

brass sleeves. The augers were advanced to a point just above each sampling depth than the sampler was driven through the hollow auger a distance of 18 inches beyond the bottom of the auger using a standard 140-pound hammer repeatedly dropped a distance of 30 inches. The number of blows needed to drive the sampler each 6-inch increment was recorded to assess the relative consistency of the soil; these blow counts are presented on the Boring Logs (Plates 3 and 4).

On December 15, 2000, samples from hand auger borings were recovered from Boring B-3 in the vicinity of the drum in the stream channel south of the stock pond and from Borings B-4 and B-5 in the circular zones, north and west of Barn #3 and west of Barn #1. At sampling depth the augured soil materials from soil borings B-3 through B-5 removed by the hand auger were placed in laboratory cleaned glass jars. Logs of Borings B-3 through B-5 are presented on Plates 5 through 7. The Unified Soil Classification System, used to describe the soil encountered in the borings is presented on Plate 8.

### SAMPLE PRESERVATION AND TRANSPORTATION

For samples from B-1 and B-2, each sampling interval was promptly sealed in its brass sleeve with teflon tape and plastic caps. Samples from the hand augers B-3 through B-5 were transferred using clean stainless steel tools to laboratory cleaned glass jars supplied by Chromalab, Inc. and sealed with the supplied jar screw caps. Each sealed sample was labeled and placed in iced storage pending transport to the laboratory for chemical analysis. Chain-of-Custody forms were prepared for the soil samples and the forms with appropriate signatures accompanied the samples to the laboratory.

### ANALYTICAL RESULTS

The 14 soil samples were submitted to the laboratory for the following analyses:

- Samples from the tank pit (Boring B-1 sample numbers 1 through 3, and Boring B-2 sample numbers 4 through 9) were analyzed for total hydrocarbons as gasoline (TPHg) and as diesel (TPHd), and for the volatile constituents benzene, toluene, ethyl benzene, and xylene (BTEX).
- Samples from near the 55-gallon drum near the creek channel south of the stock pond (Samples 10 through 12), and the samples from two representative circular zones (Samples 13 and 14) were analyzed for TPHd.

The following table summarizes the laboratory results:

Sample No.	Depth (feet)	Diesel (mg/Kg)	Gasoline (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Xylene (mg/Kg)	organochlorides (mg/Kg)
Boring B-1, South end of tank pit								
1	5½-6	280*	1200	ND	ND	18	92	----

**TABLE 1  
 ANALYTICAL RESULTS OF SOIL SAMPLES  
 JORDAN RANCH PROPERTY**

Sample No.	Depth (feet)	Diesel (mg/Kg)	Gasoline (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Xylene (mg/Kg)	organochlorides (mg/Kg)
2	10½-11	430*	1100	ND	34	27	130	----
3	15½-16	120*	190	ND	3.6	3.4	15	----
Boring B-2, North end of tank pit								
4 - 5	8½-9½	80*	420	ND	ND	6.0	19	----
6 - 7	13½-14½	11*	25	ND	ND	ND	0.98	----
8 - 9	18½-19½	1300*	4200	16	230	86	420	----
Boring B-3, Near 55 gallon drums near the creek channel south of the stock pond								
10	1-1½	ND	----	----	----	----	----	ND
11	3-3½	ND	----	----	----	----	----	ND
12	5-5½	ND	----	----	----	----	----	ND
Boring B-4, Circular area north and west of Barn #3								
13	1-1½	ND	----	----	----	----	----	ND
Boring B-5, Circular area west of Barn #1								
14	1-1½	ND	----	----	----	----	----	ND

Notes:

mg/Kg = Parts per million

\* = Volatile exudation time corresponds to diesel, however the resulting chromatogram does not match standard diesel pattern.

Each 6-inch long sample tube was numbered from Borings B-1 and B-2 and each 6-inch long sample interval was numbered from hand auger Borings B-3 through B-5. Samples 4 and 5, 6 and 7, and 8 and 9 represent 12-inch long sample intervals (i.e., two, 6-inch long tubes) from Boring B-2. For testing purposes, Samples 4 and 5 were combined for sample interval from 8½ feet to 9½ feet, Samples 6 and 7 were combined for sample interval from 13½ feet to 14½ feet, and Samples 8 and 9 were combined for sample interval from 18½ feet to 19½ feet from Boring B-2.

The laboratory analytical reports for all analyses conducted for this phase of investigation are included in Appendix A of this report. The Chain-of-Custody form with confirming signatures are included as Appendix B.

**CONCLUSIONS**

The following conclusions are drawn from the data gathered during this phase of the environmental investigation.

- Judging from the surface dimensions of the area of asphalt removed from the paved area south of Barn # 1, the tank pit was probably excavated to a depth of about 10 to 12 feet to remove the tank. Because gasoline and diesel are present in the soil material at depths shallower than the inferred tank-pit depth, we conclude that contaminated soil excavated to remove the tank was placed back into the tank-pit hole.
- Analytical data from the tank-pit samples indicate that the highest concentrations of gasoline and diesel hydrocarbons are present at the deepest sampling point from Boring B-2 at 19½ feet. This suggests either that there is a less permeable soil zone at this depth retaining the fuel hydrocarbons or that the maximum concentrations lie below depth of the soil boring.
- Based on the laboratory's observation (laboratory report, Appendix A) that the chromatogram for the material expected at the diesel portion of the chromatogram curve does not match the standard diesel pattern, it is inferred that the diesel in the soil beneath the tank pit is relatively old and has deteriorated to shorter or mixed-length hydrocarbon species.
- Samples collected near the discarded 55-gallon drum near the creek channel south of the stock pond and from the representative circular zones north and west of Barn #3 and west of Barn #1 all produced analytical results of non-detectable for the analyses conducted.

### RECOMMENDATIONS

Based on the proposed use of the subject property as residential development and presence of relatively high levels of hydrocarbons as gasoline and diesel in the backfill material and native soil beneath the removed UST, it may be necessary to conduct further subsurface investigation to evaluate the lateral and horizontal extent of the contaminants in the soil and to evaluate whether ground water has been impacted. Standard remediation goals for remediation of hydrocarbons in the soil have not been established by most environmental agencies. Determination of whether soil containing fuel hydrocarbons can remain in the ground depends on a complex decision path requiring evaluation of many factors.

We recommend that the owner of the Jordan Ranch property inform Alameda County Environmental Health Services (ACEHS) of an unauthorized release of fuel hydrocarbons as gasoline and diesel in the vicinity of the removed underground fuel tank at the site. Submission of a copy of this report to the County should comply with notification requirements. The notice of unauthorized release should be submitted to:

Alameda County Environmental Health Services  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577  
Phone: (510) 567-6700

At your request, BGC can meet with the ACEHS to discuss possible mitigation alternatives and acceptable levels of contaminants that may be left in the ground at the site and to discuss what level of cleanup would be appropriate.

Based on the analytical results on soil samples collected circular zones in the grazing portions of the ranch, and the 55-gallon drum near the creek channel south of the stock pond, we do not recommend further contaminant investigation in these areas.

During the removal of hazardous material contaminant sources at the project site, a BGC representative should be present to observe the removal and conditions exposed during removal. After the removal from the site of these sources and any excavation to remove contaminated soil, additional soil sampling and laboratory testing should be conducted to confirm that contaminated materials have been removed.

### LIMITATIONS

This report was prepared in accordance with standards of environmental practice generally accepted in California at the time this investigation was performed. Work was conducted solely for the purposes of evaluating environmental conditions with respect to the likelihood of hazardous or potentially hazardous chemical materials occurring on or in the vicinity of the subject. This report should be considered supplemental to our Phase I environmental investigation and used in conjunction with that report.

This assessment is based on five selectively located shallow soil borings, laboratory analyses of 14 soil samples from those borings for petroleum hydrocarbons and five samples for organochlorides. Soil conditions may vary between and beyond the observation points. If, during future site work, additional concerns regarding hazardous or regulated wastes are encountered, BGC should be allowed to observe those conditions.

Respectfully submitted,

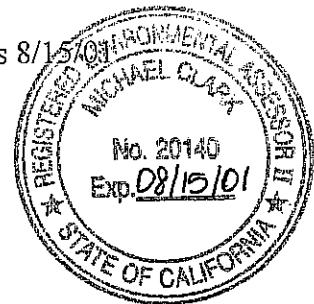
### BERLOGAR GEOTECHNICAL CONSULTANTS

*Woode Stephens*  
Woode Stephens  
Project Engineer

*Frank Berlogar*  
Frank Berlogar

WS/MNC/FB:mnc/pv

*Michael Clark*  
Michael Clark  
Principal Geologist  
REA II #20140, Expires 8/15/01



#### Attachments:

- Plate 1 - Vicinity Map
- Plate 2 - Site Plan
- Plates 3 and 4 - Logs of Borings B-1 and B-2
- Plates 5 through 7 - Logs of Borings B-3 through B-5
- Plate 8 - Unified Soil Classification System

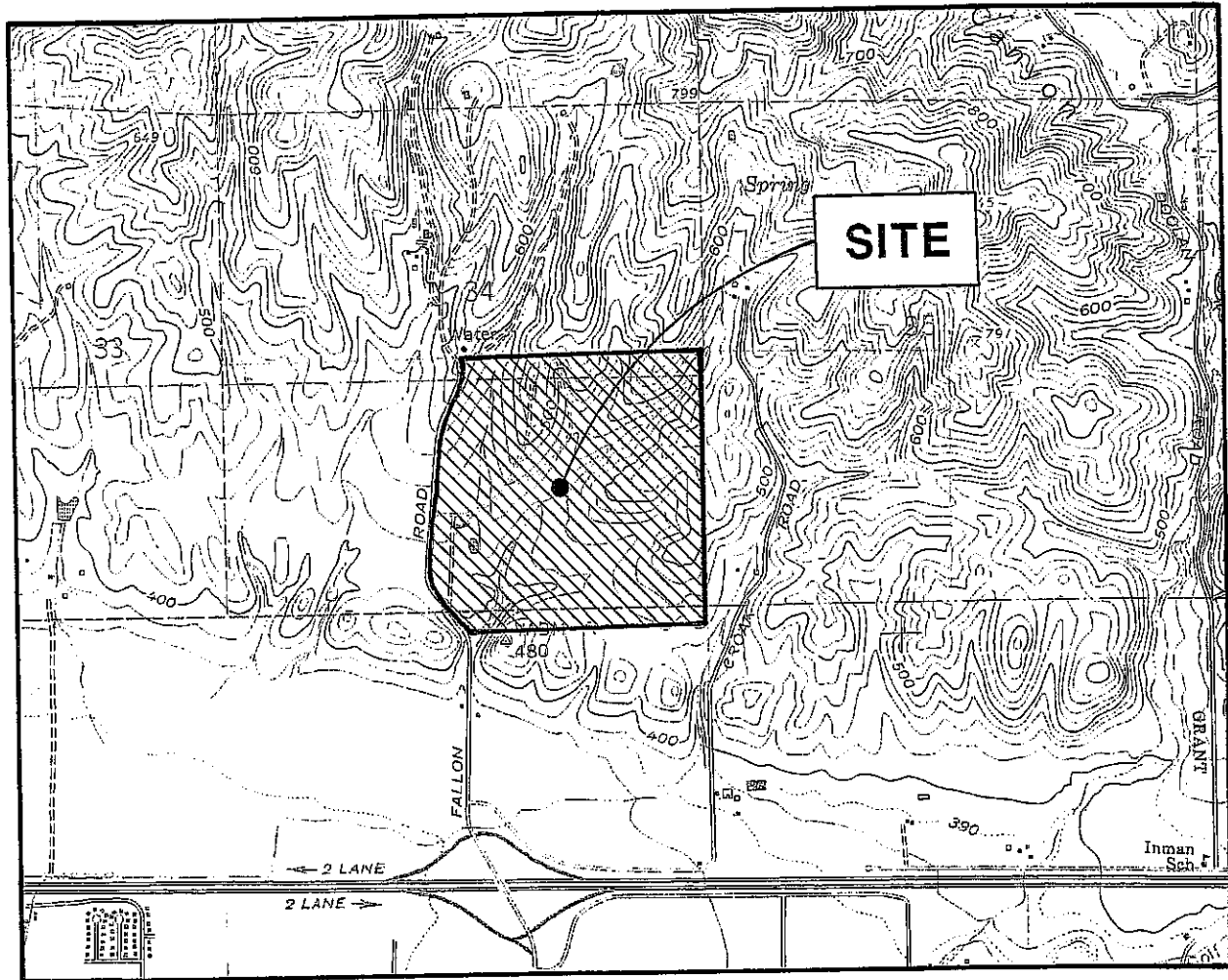
#### Appendices:

- Appendix A - Analytical Laboratory Test Results
- Appendix B - Chain-of-Custody form

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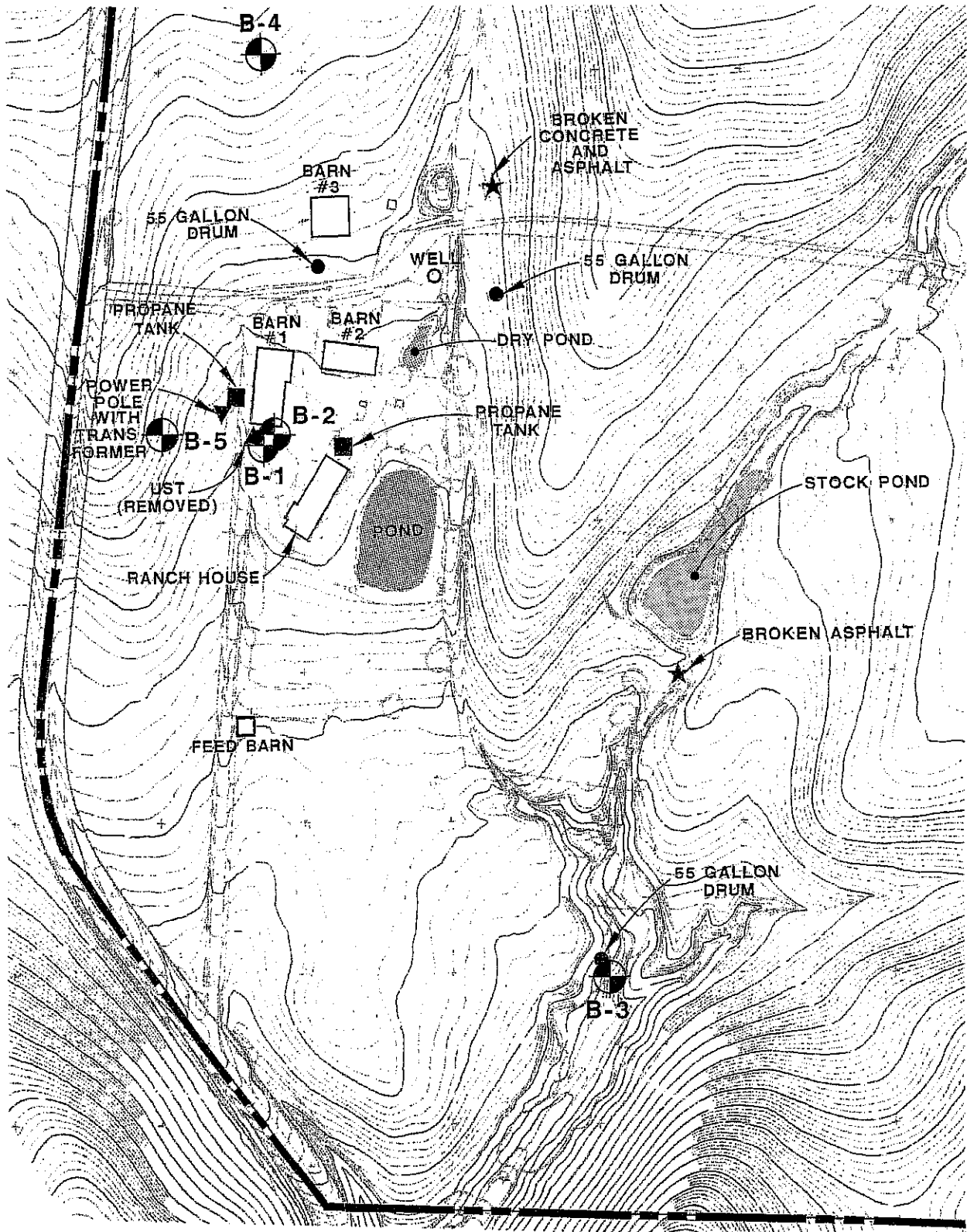


SCALE: 1" = 2000'

**VICINITY MAP**  
**JORDAN RANCH**  
 4233 FALLON ROAD  
 ALAMEDA COUNTY, CALIFORNIA  
 FOR  
 SHEA HOMES

BASE: PORTION OF U.S.G.S. 7.5 MINUTE TOPOGRAPHIC  
 QUADRANGLE, LIVERMORE, CALIFORNIA,  
 PHOTOREVISED 1980, AT A SCALE OF 1:24,000.

DATE: 11-19-00



SCALE  
1"= 200'

EXPLANATION

--- PROPERTY LINE

B-5  
BORING LOCATION

**SITE PLAN**

JORDAN RANCH

4233 FALLON ROAD  
ALAMEDA COUNTY, CALIFORNIA  
FOR  
SHEA HOMES

BASE: BOUNDARY AND TOPO SURVEY, JORDAN RANCH PREPARED BY CARLSON, BARBEE AND GIBSON, INC., DATED 7-88, AT A SCALE OF 1"=200'.

# BORING LOG

B-1

**JOB NUMBER:** 2275.901

**DATE DRILLED:** 12-15-00

**JOB NAME:** Jordan Ranch

**SURFACE ELEVATION:** N/A

**DRILL RIG:** Hollow Auger

**DATUM:** Mean Sea Level

**SAMPLER TYPE:**  
 2.5 inch I.D. Split Barrel

**DRIVE WEIGHT - LB**  
140

**HEIGHT OF FALL - IN**  
30

BLOWS PER FT.	MOISTURE CONTENT %	DRY UNIT WEIGHT p.c.f.	DEPTH IN FEET	USCS CLASSIFICATION	DESCRIPTION
			5	SP	GRAVELLY SAND, light gray-brown, wet, medium dense, fine to coarse-grained sand, fine gravel, trace clay and asphalt debris (fill)
13	-	-	5	CL	SANDY CLAY, brown-gray, wet, stiff, fine-grained sand (fill)
			10	CL	SANDY CLAY, gray, wet to saturated, medium dense, fine-grained sand  below 8 feet, becomes light gray-brown
100	-	-	10	CL	SILTY CLAY, light olive-brown, moist, hard, caliche veins and deposits, hard rock clasts and fragments  below 13 feet, some fine-grained sand, minor limonite stains
47	-	-	15		
			20		Boring terminated at 16-1/2 feet. No free water encountered.

# BORING LOG B-2

**JOB NUMBER:** 2275.901 **DATE DRILLED:** 12-15-00

**JOB NAME:** Jordan Ranch **SURFACE ELEVATION:** N/A

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

BLOWS PER FT.	MOISTURE CONTENT %	DRY UNIT WEIGHT p.c.f.	DEPTH IN FEET	USCS CLASSIFICATION	DESCRIPTION
			5	S P	GRAVELLY SAND, light gray-brown, wet, medium dense, fine to coarse-grained sand, fine gravel, trace clay (fill)
			5	C L	SANDY CLAY, brown-gray, wet, medium stiff to stiff, fine-grained sand (fill)
			5	C L	SANDY CLAY, gray, wet to saturated, medium stiff, fine-grained sand (fill ?)
18	-	-	10	S P	SAND, gray, wet, medium dense, medium to coarse-grained sand
			10	C L	SILTY CLAY, light olive-brown, moist to wet, very stiff to hard, trace fine-grained sand
70	-	-	15		below 13 feet, some fine-grained sand, caliche veins and stains
40	-	-	20		
			20		Boring terminated at 19-1/2 feet. No free water encountered.

# BORING LOG

B-3

**JOB NUMBER:** 2275.901 **DATE DRILLED:** 12-15-00

**JOB NAME:** Jordan Ranch **SURFACE ELEVATION:** N/A

**DRILL RIG:** Hand Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:**  Bulk Sample **DRIVE WEIGHT - LB** \_\_\_\_\_ **HEIGHT OF FALL - IN** \_\_\_\_\_

BLOWS PER FT.	MOISTURE CONTENT %	DRY UNIT WEIGHT p.c.f.	DEPTH IN FEET	USCS CLASSIFICATION	DESCRIPTION
-	-	-	X	CL	SILTY CLAY, dark gray-brown, moist, stiff
-	-	-	X	CL	SILTY CLAY, gray-brown, moist, stiff, trace fine-grained sand, minor caliche stains
-	-	-	5 X	CL	SANDY CLAY, light olive-brown, wet, very stiff, fine-grained sand
			10		Boring terminated at 5-1/2 feet. No free water encountered.
			15		
			20		

# BORING LOG

B-4

**JOB NUMBER:** 2275.901 **DATE DRILLED:** 12-15-00

**JOB NAME:** Jordan Ranch **SURFACE ELEVATION:** N/A

**DRILL RIG:** Hand Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:**  Bulk Sample **DRIVE WEIGHT - LB**                                  **HEIGHT OF FALL - IN**                                 

BLOWS PER FT.	MOISTURE CONTENT %	DRY UNIT WEIGHT p.c.f.	DEPTH IN FEET	USCS CLASSIFICATION	DESCRIPTION
-	-	-	0	CL	SILTY CLAY, gray-brown, moist, stiff, trace fine-grained sand
			5		Boring terminated at 1-1/2 feet. No free water encountered.
			10		
			15		
			20		

# BORING LOG

B-5

JOB NUMBER: 2275.901

DATE DRILLED: 12-15-00

JOB NAME: Jordan Ranch

SURFACE ELEVATION: N/A

DRILL RIG: Hand Auger

DATUM: Mean Sea Level

SAMPLER TYPE:

DRIVE WEIGHT - LB

HEIGHT OF FALL - IN

Bulk Sample

BLOWS PER FT.	MOISTURE CONTENT %	DRY UNIT WEIGHT p.c.f.	DEPTH IN FEET	USCS CLASSIFICATION	DESCRIPTION
.	.	.	<input checked="" type="checkbox"/>	CL	SILTY CLAY, gray-brown, moist, stiff to very stiff, fine to medium-grained sand
			5		Boring terminated at 1-1/2 feet. No free water encountered.
			10		
			15		
			20		

MAJOR DIVISIONS			CLASSIFICATION	TYPICAL NAMES
COARSE GRAINED SOILS  MORE THAN HALF IS LARGER THAN #200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS, GRAVEL - SAND MIXTURES
			GP	POORLY GRADED GRAVELS, GRAVEL - SAND MIXTURES
		GRAVEL WITH OVER 12% FINES	GM	SILTY GRAVELS, POORLY GRADED GRAVEL - SAND - SILT MIXTURES
			GC	CLAYEY GRAVELS, POORLY GRADED GRAVEL - SAND - CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS
			SP	POORLY GRADED SANDS, GRAVELLY SANDS
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, POORLY GRADED SAND - SILT MIXTURES
			SC	CLAYEY SANDS, POORLY GRADED SAND - CLAY MIXTURES
FINE GRAINED SOILS  MORE THAN HALF IS SMALLER THAN #200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, OR CLAYEY SILTS WITH SLIGHT PLASTICITY	
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	
		OL	ORGANIC CLAYS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
HIGHLY ORGANIC SOILS			Pt	PEAT AND OTHER HIGHLY ORGANIC SILTS

## UNIFIED SOIL CLASSIFICATION SYSTEM

Blows per ft.	Moisture Content (%)	Dry Unit Weight (pcf)	Depth in Feet	USCS Classification	
					Bulk Sample
					2.5" I.D. Split Barrel Sample
					2.8" I.D. Shelby Tube Sample
					No sample recovered
					Standard Penetration Test interval
					Well defined stratum change
					Gradual stratum change
					Interpreted stratum change
					Apparent ground water level at date noted. Seasonal weather conditions, site topography, etc., may cause changes in water level indicated on logs.

Note: Soils described as dry, moist, and wet are estimated to be dry of optimum, near optimum, and wet of optimum moisture content, respectively. Saturated soils are estimated to be within areas of free groundwater.

## KEY TO BORING LOG SYMBOLS



## APPENDIX A

### Analytical Laboratory Test Results

Diesel

**Berlogar Geotechnical**

☒ 5587 Sunol Blvd.  
Pleasanton, CA 94566

Attn: Woode Stephens

Phone: (925) 484-0220 Fax: (925) 846-9645

Project #:

Project: Jordan Ranch - Dublin, CA

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
#1	Soil	12/15/2000 08:45	1
#2	Soil	12/15/2000 08:50	2
#3	Soil	12/15/2000 08:55	3
#4,#5	Soil	12/15/2000	4
#6,#7	Soil	12/15/2000	5
#8,#9	Soil	12/15/2000	6
#10	Soil	12/15/2000 10:00	7
#11	Soil	12/15/2000 10:15	8
#12	Soil	12/15/2000 10:10	9
#13	Soil	12/15/2000 13:00	10
#14	Soil	12/15/2000 13:15	11

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Attn.: Woode Stephens

Test Method: 8015M

Prep Method: 3550/8015M

Diesel

Sample ID: #1	Lab Sample ID: 2000-12-0300-001
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 08:45	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	280	1.0	mg/Kg	1.00	12/19/2000 14:12	ndp
<i>Surrogate(s)</i> o-Terphenyl	89.1	60-130	%	1.00	12/19/2000 14:12	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Attn.: Woode Stephens

Test Method: 8015M

Prep Method: 3550/8015M

Diesel

Sample ID: #2	Lab Sample ID: 2000-12-0300-002
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 08:50	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	430	20	mg/Kg	20.00	12/20/2000 10:08	ndp
.Surrogate(s) o-Terphenyl	NA	60-130	mg/Kg	20.00	12/20/2000 10:08	sd

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn.: Woode Stephens

Test Method: 8015M  
Prep Method: 3550/8015M

Diesel

Sample ID: #3	Lab Sample ID: 2000-12-0300-003
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 08:55	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	120	1.0	mg/Kg	1.00	12/19/2000 14:55	ndp
<i>Surrogate(s)</i> o-Terphenyl	75.7	60-130	%	1.00	12/19/2000 14:55	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn.: Woode Stephens

Test Method: 8015M  
Prep Method: 3550/8015M

Diesel

Sample ID: #4,#5	Lab Sample ID: 2000-12-0300-004
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	80	2.0	mg/Kg	2.00	12/19/2000 13:01	ndp
Surrogate(s) o-Terphenyl	90.1	60-130	%	2.00	12/19/2000 13:01	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Attn.: Woode Stephens

Test Method: 8015M

Prep Method: 3550/8015M

Diesel

Sample ID: #6,#7	Lab Sample ID: 2000-12-0300-005
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	11	1.0	mg/Kg	1.00	12/19/2000 14:35	ndp
<b>Surrogate(s)</b> o-Terphenyl	111.8	60-130	%	1.00	12/19/2000 14:35	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn.: Woode Stephens

Test Method: 8015M  
Prep Method: 3550/8015M

Diesel

Sample ID: #8,#9	Lab Sample ID: 2000-12-0300-006
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	1300	10	mg/Kg	10.00	12/20/2000 07:03	ndp
Surrogate(s) o-Terphenyl	NA	60-130	mg/Kg	10.00	12/20/2000 07:03	sd

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn.: Woode Stephens

Test Method: 8015M  
Prep Method: 3550/8015M

Diesel

Sample ID: #10	Lab Sample ID: 2000-12-0300-007
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 10:00	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	12/18/2000 19:35	
Surrogate(s) o-Terphenyl	86.6	60-130	%	1.00	12/18/2000 19:35	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Attn.: Woode Stephens

Test Method: 8015M

Prep Method: 3550/8015M

Diesel

Sample ID: #11	Lab Sample ID: 2000-12-0300-008
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 10:15	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	12/18/2000 20:18	
<i>Surrogate(s)</i> o-Terphenyl	83.5	60-130	%	1.00	12/18/2000 20:18	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn.: Woode Stephens

Test Method: 8015M  
Prep Method: 3550/8015M

Diesel

Sample ID: #12	Lab Sample ID: 2000-12-0300-009
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 10:10	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	12/18/2000 22:01	
<i>Surrogate(s)</i> o-Terphenyl	74.3	60-130	%	1.00	12/18/2000 22:01	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Attn.: Woode Stephens

Test Method: 8015M

Prep Method: 3550/8015M

Diesel

Sample ID: #13	Lab Sample ID: 2000-12-0300-010
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 13:00	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	12/18/2000 21:44	
<i>Surrogate(s)</i> o-Terphenyl	66.5	60-130	%	1.00	12/18/2000 21:44	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8015M

Attn.: Woode Stephens

Prep Method: 3550/8015M

Diesel

Sample ID: #14	Lab Sample ID: 2000-12-0300-011
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 13:15	Extracted: 12/18/2000 07:25
Matrix: Soil	QC-Batch: 2000/12/18-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	12/18/2000 22:27	
Surrogate(s) o-Terphenyl	82.0	60-130	%	1.00	12/18/2000 22:27	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn.: Woode Stephens

Test Method: 8015M  
Prep Method: 3550/8015M

## Batch QC Report Diesel

Method Blank	Soil	QC Batch # 2000/12/18-01.10
MB: 2000/12/18-01.10-001		Date Extracted: 12/18/2000 07:25

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	1	mg/Kg	12/19/2000 01:22	
<i>Surrogate(s)</i> o-Terphenyl	89.0	60-130	%	12/19/2000 01:22	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8015M

Attn: Woode Stephens

Prep Method: 3550/8015M

## Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 2000/12/18-01.10	
LCS: 2000/12/18-01.10-002	Extracted: 12/18/2000 07:25	Analyzed	12/18/2000 23:49
LCSD: 2000/12/18-01.10-003	Extracted: 12/18/2000 07:25	Analyzed	12/19/2000 00:36

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	32.7	35.5	41.7	41.7	78.4	85.1	8.2	60-130	25		
<b>Surrogate(s)</b> o-Terphenyl	22.7	24.0	20.0	20.0	113.5	120.0		60-130			

To: Berlogar Geotechnical

Attn: Woode Stephens

Test Method: 8015M

Prep Method: 3550/8015M

## Legend & Notes

Diesel

### Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

sd

Surrogate recovery not reportable due to required dilution.



Gas/BTEX (High Level)

**Berlogar Geotechnical**

✉ 5587 Sunol Blvd.  
Pleasanton, CA 94566

Attn: Woode Stephens

Phone: (925) 484-0220 Fax: (925) 846-9645

Project #:

Project: Jordan Ranch - Dublin, CA

### Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
#1	Soil	12/15/2000 08:45	1
#2	Soil	12/15/2000 08:50	2
#3	Soil	12/15/2000 08:55	3
#4,#5	Soil	12/15/2000	4
#6,#7	Soil	12/15/2000	5
#8,#9	Soil	12/15/2000	6

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8020  
8015M

Attn.: Woode Stephens

Prep Method: 5030AEXT

Gas/BTEX (High Level)

Sample ID: #1	Lab Sample ID: 2000-12-0300-001
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 08:45	Extracted: 12/18/2000 17:57
Matrix: Soil	QC-Batch: 2000/12/18-05.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	1200	100	mg/Kg	10.00	12/19/2000 17:57	
Benzene	ND	0.62	mg/Kg	10.00	12/19/2000 17:57	
Toluene	ND	0.62	mg/Kg	10.00	12/19/2000 17:57	
Ethyl benzene	18	6.2	mg/Kg	10.00	12/19/2000 17:57	
Xylene(s)	92	0.62	mg/Kg	10.00	12/19/2000 17:57	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	10.00	12/19/2000 17:57	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	12/19/2000 17:57	sd

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8020  
8015M

Attn.: Woode Stephens

Prep Method: 5030AEXT

Gas/BTEX (High Level)

Sample ID: #2	Lab Sample ID: 2000-12-0300-002
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 08:50	Extracted: 12/18/2000 18:31
Matrix: Soil	QC-Batch: 2000/12/18-05.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	1100	100	mg/Kg	10.00	12/19/2000 18:31	
Benzene	ND	0.62	mg/Kg	10.00	12/19/2000 18:31	
Toluene	34	0.62	mg/Kg	10.00	12/19/2000 18:31	
Ethyl benzene	27	0.62	mg/Kg	10.00	12/19/2000 18:31	
Xylene(s)	130	0.62	mg/Kg	10.00	12/19/2000 18:31	
<b>Surrogate(s)</b>						
Trifluorotoluene	NA	53-125	%	10.00	12/19/2000 18:31	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	12/19/2000 18:31	sd

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8020  
8015M

Attn.: Woode Stephens

Prep Method: 5030AEXT

Gas/BTEX (High Level)

Sample ID: #3	Lab Sample ID: 2000-12-0300-003
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 08:55	Extracted: 12/18/2000 19:04
Matrix: Soil	QC-Batch: 2000/12/18-05.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	190	10	mg/Kg	1.00	12/19/2000 19:04	
Benzene	ND	0.62	mg/Kg	1.00	12/19/2000 19:04	
Toluene	3.6	0.62	mg/Kg	1.00	12/19/2000 19:04	
Ethyl benzene	3.4	0.62	mg/Kg	1.00	12/19/2000 19:04	
Xylene(s)	15	0.62	mg/Kg	1.00	12/19/2000 19:04	
<b>Surrogate(s)</b>						
Trifluorotoluene	84.8	53-125	%	1.00	12/19/2000 19:04	
4-Bromofluorobenzene-FID	134.6	58-124	%	1.00	12/19/2000 19:04	sh

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8020  
8015M

Attn.: Woode Stephens

Prep Method: 5030AEXT

Gas/BTEX (High Level)

Sample ID: #4,#5	Lab Sample ID: 2000-12-0300-004
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000	Extracted: 12/18/2000 20:44
Matrix: Soil	QC-Batch: 2000/12/18-05.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	420	20	mg/Kg	2.00	12/19/2000 20:44	
Benzene	ND	0.62	mg/Kg	2.00	12/19/2000 20:44	
Toluene	ND	0.62	mg/Kg	2.00	12/19/2000 20:44	
Ethyl benzene	6.0	0.62	mg/Kg	2.00	12/19/2000 20:44	
Xylene(s)	19	0.62	mg/Kg	2.00	12/19/2000 20:44	
<b>Surrogate(s)</b>						
4-Bromofluorobenzene	87.2	58-124	%	1.00	12/19/2000 20:44	
4-Bromofluorobenzene-FID	202.0	58-124	%	1.00	12/19/2000 20:44	sh

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8020  
8015M

Attn.: Woode Stephens

Prep Method: 5030AEXT

Gas/BTEX (High Level)

Sample ID: #6,#7	Lab Sample ID: 2000-12-0300-005
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000	Extracted: 12/18/2000 20:31
Matrix: Soil	QC-Batch: 2000/12/18-05.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	25	10	mg/Kg	1.00	12/18/2000 20:31	
Benzene	ND	0.62	mg/Kg	1.00	12/18/2000 20:31	
Toluene	ND	0.62	mg/Kg	1.00	12/18/2000 20:31	
Ethyl benzene	ND	0.62	mg/Kg	1.00	12/18/2000 20:31	
Xylene(s)	0.98	0.62	mg/Kg	1.00	12/18/2000 20:31	
<b>Surrogate(s)</b>						
Trifluorotoluene	116.4	53-125	%	1.00	12/18/2000 20:31	
4-Bromofluorobenzene-FID	91.4	58-124	%	1.00	12/18/2000 20:31	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8020  
8015M

Attn.: Woode Stephens

Prep Method: 5030AEXT

Gas/BTEX (High Level)

Sample ID: #8,#9	Lab Sample ID: 2000-12-0300-006
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000	Extracted: 12/18/2000 21:17
Matrix: Soil	QC-Batch: 2000/12/18-05.03

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	4200	200	mg/Kg	20.00	12/19/2000 21:17	
Benzene	16	0.62	mg/Kg	20.00	12/19/2000 21:17	
Toluene	230	0.62	mg/Kg	20.00	12/19/2000 21:17	
Ethyl benzene	86	0.62	mg/Kg	20.00	12/19/2000 21:17	
Xylene(s)	420	0.62	mg/Kg	20.00	12/19/2000 21:17	
<i>Surrogate(s)</i>						
Trifluorotoluene	NA	53-125	%	20.00	12/19/2000 21:17	sd
4-Bromofluorobenzene-FID	NA	58-124	%	1.00	12/19/2000 21:17	sd

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8015M  
8020

Attn.: Woode Stephens

Prep Method: 5030AEXT

**Batch QC Report**  
Gas/BTEX (High Level)

<b>Method Blank</b>	<b>Soil</b>	<b>QC Batch # 2000/12/18-05.03</b>
MB: 2000/12/18-05.03-001		Date Extracted: 12/18/2000 15:46

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	10	mg/Kg	12/18/2000 15:46	
Benzene	ND	0.62	mg/Kg	12/18/2000 15:46	
Toluene	ND	0.62	mg/Kg	12/18/2000 15:46	
Ethyl benzene	ND	0.62	mg/Kg	12/18/2000 15:46	
Xylene(s)	ND	0.62	mg/Kg	12/18/2000 15:46	
<b>Surrogate(s)</b>					
Trifluorotoluene	113.4	53-125	%	12/18/2000 15:46	
4-Bromofluorobenzene-FID	84.4	58-124	%	12/18/2000 15:46	



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8015M  
8020

Attn: Woode Stephens

Prep Method: 5030AEXT

## Batch QC Report

Gas/BTEX (High Level)

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/12/18-05.03	
LCS:	2000/12/18-05.03-002	Extracted:	12/18/2000 13:32	Analyzed	12/18/2000 13:32
LCSD:	2000/12/18-05.03-003	Extracted:	12/18/2000 14:06	Analyzed	12/18/2000 14:06

Compound	Conc. [ mg/Kg ]		Exp. Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	0.667	0.641	0.625	0.625	106.7	102.6	3.9	75-125	35		
Benzene	0.126	0.132	0.125	0.125	100.8	105.6	4.7	77-123	35		
Toluene	0.130	0.136	0.125	0.125	104.0	108.8	4.5	78-122	35		
Ethyl benzene	0.118	0.123	0.125	0.125	94.4	98.4	4.1	70-130	35		
Xylene(s)	0.350	0.303	0.375	0.375	93.3	80.8	14.4	75-125	35		
<b>Surrogate(s)</b>											
Trifluorotoluene	526	549	500	500	105.2	109.8		53-125			
4-Bromofluorobenzene-F1	391	394	500	500	78.2	78.8		58-124			

To: **Berlogar Geotechnical**

Test Method: 8015M  
8020

Attn: Woode Stephens

Prep Method: 5030AEXT

**Legend & Notes**

Gas/BTEX (High Level)

**Analyte Flags**

sd

Surrogate recovery not reportable due to required dilution.

sh

Surrogate recovery was higher than QC limit due to matrix interference.

Organochlorine Pesticides & PCBs ( 8081/8082 )

<b>Berlogar Geotechnical</b>	☒ 5587 Sunol Blvd. Pleasanton, CA 94566
Attn: Woode Stephens	Phone: (925) 484-0220 Fax: (925) 846-9645
Project #:	Project: Jordan Ranch - Dublin, CA

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
#10	Soil	12/15/2000 10:00	7
#11	Soil	12/15/2000 10:15	8
#12	Soil	12/15/2000 10:10	9
#13	Soil	12/15/2000 13:00	10
#14	Soil	12/15/2000 13:15	11

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081  
8082

Attn.: Woode Stephens

Prep Method: 3550/8081  
3550/8082

## Organochlorine Pesticides & PCBs ( 8081/8082 )

Sample ID: #10	Lab Sample ID: 2000-12-0300-007
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 10:00	Extracted: 12/18/2000 07:12
Matrix: Soil	QC-Batch: 2000/12/18-01.13 2000/12/18-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Dieldrin	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Endrin	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Heptachlor	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
4,4'-DDT	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
4,4'-DDE	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
4,4'-DDD	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Endosulfan I	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Endosulfan II	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
alpha-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
beta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
delta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 14:04	
Toxaphene	ND	100	ug/Kg	1.00	12/19/2000 14:04	
Aroclor 1016	ND	50	ug/Kg	1.00	12/18/2000 21:04	
Aroclor 1221	ND	50	ug/Kg	1.00	12/18/2000 21:04	
Aroclor 1232	ND	50	ug/Kg	1.00	12/18/2000 21:04	
Aroclor 1242	ND	50	ug/Kg	1.00	12/18/2000 21:04	
Aroclor 1248	ND	50	ug/Kg	1.00	12/18/2000 21:04	
Aroclor 1254	ND	50	ug/Kg	1.00	12/18/2000 21:04	
Aroclor 1260	ND	50	ug/Kg	1.00	12/18/2000 21:04	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	76.0	50-125	%	1.00	12/19/2000 14:04	
Decachlorobiphenyl (Pest/8081)	69.4	46-142	%	1.00	12/19/2000 14:04	
2,4,5,6-Tetrachloro-m-xylene	90.1	50-125	%	1.00	12/18/2000 21:04	
Decachlorobiphenyl (PCB/8082)	95.1	46-142	%	1.00	12/18/2000 21:04	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081  
8082

Attn.: Woode Stephens

Prep Method: 3550/8081  
3550/8082

## Organochlorine Pesticides & PCBs ( 8081/8082 )

Sample ID: #11	Lab Sample ID: 2000-12-0300-008
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 10:15	Extracted: 12/18/2000 07:12
Matrix: Soil	QC-Batch: 2000/12/18-01.13 2000/12/18-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Dieldrin	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Endrin	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Heptachlor	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
4,4'-DDT	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
4,4'-DDE	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
4,4'-DDD	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Endosulfan I	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Endosulfan II	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
alpha-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
beta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
delta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 14:35	
Toxaphene	ND	100	ug/Kg	1.00	12/19/2000 14:35	
Aroclor 1016	ND	50	ug/Kg	1.00	12/18/2000 21:32	
Aroclor 1221	ND	50	ug/Kg	1.00	12/18/2000 21:32	
Aroclor 1232	ND	50	ug/Kg	1.00	12/18/2000 21:32	
Aroclor 1242	ND	50	ug/Kg	1.00	12/18/2000 21:32	
Aroclor 1248	ND	50	ug/Kg	1.00	12/18/2000 21:32	
Aroclor 1254	ND	50	ug/Kg	1.00	12/18/2000 21:32	
Aroclor 1260	ND	50	ug/Kg	1.00	12/18/2000 21:32	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	88.5	50-125	%	1.00	12/19/2000 14:35	
Decachlorobiphenyl (Pest/8081)	85.8	46-142	%	1.00	12/19/2000 14:35	
2,4,5,6-Tetrachloro-m-xylene	101.1	50-125	%	1.00	12/18/2000 21:32	
Decachlorobiphenyl (PCB/8082)	109.8	46-142	%	1.00	12/18/2000 21:32	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081  
8082

Attn.: Woode Stephens

Prep Method: 3550/8081  
3550/8082

## Organochlorine Pesticides & PCBs ( 8081/8082 )

Sample ID: #12	Lab Sample ID: 2000-12-0300-009
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 10:10	Extracted: 12/18/2000 07:12
Matrix: Soil	QC-Batch: 2000/12/18-01.13 2000/12/18-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Dieldrin	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Endrin	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Heptachlor	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
4,4'-DDT	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
4,4'-DDE	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
4,4'-DDD	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Endosulfan I	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Endosulfan II	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
alpha-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
beta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
delta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 15:07	
Toxaphene	ND	100	ug/Kg	1.00	12/19/2000 15:07	
Aroclor 1016	ND	50	ug/Kg	1.00	12/18/2000 22:00	
Aroclor 1221	ND	50	ug/Kg	1.00	12/18/2000 22:00	
Aroclor 1232	ND	50	ug/Kg	1.00	12/18/2000 22:00	
Aroclor 1242	ND	50	ug/Kg	1.00	12/18/2000 22:00	
Aroclor 1248	ND	50	ug/Kg	1.00	12/18/2000 22:00	
Aroclor 1254	ND	50	ug/Kg	1.00	12/18/2000 22:00	
Aroclor 1260	ND	50	ug/Kg	1.00	12/18/2000 22:00	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	81.0	50-125	%	1.00	12/19/2000 15:07	
Decachlorobiphenyl (Pest/8081)	74.0	46-142	%	1.00	12/19/2000 15:07	
2,4,5,6-Tetrachloro-m-xylene	97.9	50-125	%	1.00	12/18/2000 22:00	
Decachlorobiphenyl (PCB/8082)	103.9	46-142	%	1.00	12/18/2000 22:00	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081  
8082

Attn.: Woode Stephens

Prep Method: 3550/8081  
3550/8082

## Organochlorine Pesticides & PCBs ( 8081/8082 )

Sample ID: #13	Lab Sample ID: 2000-12-0300-010
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 13:00	Extracted: 12/18/2000 07:12
Matrix: Soil	QC-Batch: 2000/12/18-01.13 2000/12/18-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Dieldrin	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Endrin	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Heptachlor	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
4,4'-DDT	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
4,4'-DDE	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
4,4'-DDD	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Endosulfan I	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Endosulfan II	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
alpha-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
beta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
delta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 15:38	
Toxaphene	ND	100	ug/Kg	1.00	12/19/2000 15:38	
Aroclor 1016	ND	50	ug/Kg	1.00	12/18/2000 22:29	
Aroclor 1221	ND	50	ug/Kg	1.00	12/18/2000 22:29	
Aroclor 1232	ND	50	ug/Kg	1.00	12/18/2000 22:29	
Aroclor 1242	ND	50	ug/Kg	1.00	12/18/2000 22:29	
Aroclor 1248	ND	50	ug/Kg	1.00	12/18/2000 22:29	
Aroclor 1254	ND	50	ug/Kg	1.00	12/18/2000 22:29	
Aroclor 1260	ND	50	ug/Kg	1.00	12/18/2000 22:29	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	77.9	50-125	%	1.00	12/19/2000 15:38	
Decachlorobiphenyl (Pest/8081)	75.2	46-142	%	1.00	12/19/2000 15:38	
2,4,5,6-Tetrachloro-m-xylene	93.8	50-125	%	1.00	12/18/2000 22:29	
Decachlorobiphenyl (PCB/8082)	106.6	46-142	%	1.00	12/18/2000 22:29	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081  
8082

Attn.: Woode Stephens

Prep Method: 3550/8081  
3550/8082

Organochlorine Pesticides & PCBs ( 8081/8082 )

Sample ID: #14	Lab Sample ID: 2000-12-0300-011
Project: Jordan Ranch - Dublin, CA	Received: 12/15/2000 15:00
Sampled: 12/15/2000 13:15	Extracted: 12/18/2000 07:12
Matrix: Soil	QC-Batch: 2000/12/18-01.13 2000/12/18-02.14

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Dieldrin	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Endrin	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Heptachlor	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
4,4'-DDT	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
4,4'-DDE	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
4,4'-DDD	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Endosulfan I	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Endosulfan II	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
alpha-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
beta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
delta-BHC	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	12/19/2000 16:09	
Toxaphene	ND	100	ug/Kg	1.00	12/19/2000 16:09	
Aroclor 1016	ND	50	ug/Kg	1.00	12/18/2000 22:57	
Aroclor 1221	ND	50	ug/Kg	1.00	12/18/2000 22:57	
Aroclor 1232	ND	50	ug/Kg	1.00	12/18/2000 22:57	
Aroclor 1242	ND	50	ug/Kg	1.00	12/18/2000 22:57	
Aroclor 1248	ND	50	ug/Kg	1.00	12/18/2000 22:57	
Aroclor 1254	ND	50	ug/Kg	1.00	12/18/2000 22:57	
Aroclor 1260	ND	50	ug/Kg	1.00	12/18/2000 22:57	
<b>Surrogate(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	84.9	50-125	%	1.00	12/19/2000 16:09	
Decachlorobiphenyl (Pest/8081)	80.6	46-142	%	1.00	12/19/2000 16:09	
2,4,5,6-Tetrachloro-m-xylene	97.8	50-125	%	1.00	12/18/2000 22:57	
Decachlorobiphenyl (PCB/8082)	107.9	46-142	%	1.00	12/18/2000 22:57	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081

Attn.: Woode Stephens

Prep Method: 3550/8081

## Batch QC Report

Organochlorine Pesticides & PCBs ( 8081/8082 )

Method Blank	Soil	QC Batch # 2000/12/18-01.13
MB: 2000/12/18-01.13-001		Date Extracted: 12/18/2000 07:12

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	12/19/2000 07:46	
Dieldrin	ND	2.0	ug/Kg	12/19/2000 07:46	
Endrin aldehyde	ND	2.0	ug/Kg	12/19/2000 07:46	
Endrin	ND	2.0	ug/Kg	12/19/2000 07:46	
Heptachlor	ND	2.0	ug/Kg	12/19/2000 07:46	
Heptachlor epoxide	ND	2.0	ug/Kg	12/19/2000 07:46	
4,4'-DDT	ND	2.0	ug/Kg	12/19/2000 07:46	
4,4'-DDE	ND	2.0	ug/Kg	12/19/2000 07:46	
4,4'-DDD	ND	2.0	ug/Kg	12/19/2000 07:46	
Endosulfan I	ND	2.0	ug/Kg	12/19/2000 07:46	
Endosulfan II	ND	2.0	ug/Kg	12/19/2000 07:46	
alpha-BHC	ND	2.0	ug/Kg	12/19/2000 07:46	
beta-BHC	ND	2.0	ug/Kg	12/19/2000 07:46	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	12/19/2000 07:46	
delta-BHC	ND	2.0	ug/Kg	12/19/2000 07:46	
Endosulfan sulfate	ND	2.0	ug/Kg	12/19/2000 07:46	
4,4'-Methoxychlor	ND	2.0	ug/Kg	12/19/2000 07:46	
Toxaphene	ND	100	ug/Kg	12/19/2000 07:46	
alpha-Chlordane	ND	2.0	ug/Kg	12/19/2000 07:46	
gamma-Chlordane	ND	2.0	ug/Kg	12/19/2000 07:46	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	71.4	50-125	%	12/19/2000 07:46	
Decachlorobiphenyl (Pest/8081)	70.6	46-142	%	12/19/2000 07:46	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8082

Attn.: Woode Stephens

Prep Method: 3550/8082

## Batch QC Report

Organochlorine Pesticides & PCBs ( 8081/8082 )

Method Blank	Soil	QC Batch # 2000/12/18-02.14
MB: 2000/12/18-02.14-001		Date Extracted: 12/18/2000 07:15

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Aroclor 1016	ND	0.05	mg/Kg	12/18/2000 18:42	
Aroclor 1221	ND	0.05	mg/Kg	12/18/2000 18:42	
Aroclor 1232	ND	0.05	mg/Kg	12/18/2000 18:42	
Aroclor 1242	ND	0.05	mg/Kg	12/18/2000 18:42	
Aroclor 1248	ND	0.05	mg/Kg	12/18/2000 18:42	
Aroclor 1254	ND	0.05	mg/Kg	12/18/2000 18:42	
Aroclor 1260	ND	0.05	mg/Kg	12/18/2000 18:42	
<b>Surrogate(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	89.8	50-125	%	12/18/2000 18:42	
Decachlorobiphenyl (PCB/8082)	107.4	46-142	%	12/18/2000 18:42	

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081

Attn: Woode Stephens

Prep Method: 3550/8081

## Batch QC Report

Organochlorine Pesticides & PCBs ( 8081/8082 )

<b>Laboratory Control Spike (LCS/LCSD)</b>	<b>Soil</b>	<b>QC Batch # 2000/12/18-01.13</b>
LCS: 2000/12/18-01.13-002	Extracted: 12/18/2000 07:12	Analyzed 12/19/2000 08:17
LCSD: 2000/12/18-01.13-003	Extracted: 12/18/2000 07:12	Analyzed 12/18/2000 08:47

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aldrin	14.7	9.20	16.7	16.7	88.0	55.1	46.0	37-136	25		
Dieldrin	14.3	9.04	16.7	16.7	85.6	54.1	45.1	58-135	35		
Endrin	13.9	9.07	16.7	16.7	83.2	54.3	42.0	58-134	35		
Heptachlor	14.7	9.03	16.7	16.7	88.0	54.1	47.7	40-136	20		
4,4'-DDT	13.3	9.02	16.7	16.7	79.6	54.0	38.3	55-132	35		
gamma-BHC (Lindane)	14.0	8.90	16.7	16.7	83.8	53.3	44.5	37-137	35		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	37.5	23.4	50	50	75.0	46.8		50-125			
Decachlorobiphenyl	37.1	26.6	50	50	74.2	53.2		46-142			

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical  
Attn: Woode Stephens

Test Method: 8082  
Prep Method: 3550/8082

## Batch QC Report

Organochlorine Pesticides & PCBs ( 8081/8082 )

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 2000/12/18-02.14
LCS: 2000/12/18-02.14-002	Extracted: 12/18/2000 07:15	Analyzed 12/18/2000 19:10
LCSD: 2000/12/18-02.14-003	Extracted: 12/18/2000 07:15	Analyzed 12/18/2000 19:38

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Aroclor 1016	0.0613	0.0558	0.0667	0.0667	91.9	83.7	9.3	65-135	30		
Aroclor 1260	0.0686	0.0629	0.0667	0.0667	102.8	94.3	8.6	65-135	30		
<b>Surrogate(s)</b>											
2,4,5,6-Tetrachloro-m-xyl	46.7	43.6	50	50	93.4	87.2		50-125			
Decachlorobiphenyl	53.4	49.4	50	50	106.8	98.8		46-142			

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# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-12-0300

To: Berlogar Geotechnical

Test Method: 8081

Attn.: Woode Stephens

Prep Method: 3550/8081

## Batch QC Report

Organochlorine Pesticides & PCBs ( 8081/8082 )

<b>Matrix Spike ( MS / MSD )</b>	<b>Soil</b>	<b>QC Batch # 2000/12/18-01.13</b>
Sample ID: #10		Lab Sample ID: 2000-12-0300-007
MS: 2000/12/18-01.13-004	Extracted: 12/18/2000 07:12	Analyzed: 12/19/2000 13:33 Dilution: 1.0
MSD: 2000/12/18-01.13-005	Extracted: 12/18/2000 07:12	Analyzed: 12/19/2000 13:02 Dilution: 1.0

Compound	Conc. [ ug/Kg ]			Exp. Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Aldrin	12.6	12.4	ND	16.5	16.5	76.4	75.2	1.8	37-136	25		
Dieldrin	12.3	12.2	ND	16.5	16.5	74.5	73.9	0.8	58-135	35		
Endrin	13.0	12.6	ND	16.5	16.5	78.8	76.4	3.1	58-134	35		
Heptachlor	12.6	12.4	ND	16.5	16.5	76.4	75.2	1.6	40-136	20		
4,4'-DDT	13.1	12.9	ND	16.5	16.5	79.4	78.2	1.5	55-132	35		
gamma-BHC (Lindane)	12.8	12.4	ND	16.5	16.5	77.6	75.2	3.1	37-137	35		
<b>Surrogate(s)</b>												
2,4,5,6-Tetrachloro-m-xy	41.9	41.3		50	50	83.8	82.6		50-125			
Decachlorobiphenyl	40.5	39.8		50	50	81.0	79.6		46-142			

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
 Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

APPENDIX B

Chain-of-Custody Form

**CHROMALAB, INC.**  
 Borlogar Geotechnical Consultants

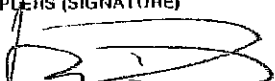
2000-12-0300  
 1220 Quarry Lane • Pleasanton, California 94566-4756  
 (925) 484-1919 • Fax (925) 484-1096

**Chain of Custody**

DATE 12.15.00 PAGE 1 OF 1

Environmental Services (SDB) (DOHS 1094)

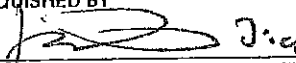
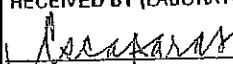
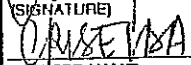
PROJ. MGR WUDDIE STEPHENS  
 COMPANY BERLOGAR GEOTECH.  
 ADDRESS 5587 SULLY BLVD  
PLEASANTON, CA 94566

SAMPLERS (SIGNATURE)  (PHONE NO.) (925) 484-0220  
 (FAX NO.)

**ANALYSIS REPORT**

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH-(EPA 8015,8020) <input type="checkbox"/> Gas w/ <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE	PURGEABLE AROMATICS BTX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) <input type="checkbox"/> Diesel <input type="checkbox"/> M.O. <input type="checkbox"/> Other	PURGEABLE HALOCARBONS (HYOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMI-VOLATILES (EPA 8270)	Oil & Grease <input type="checkbox"/> Petrol <input type="checkbox"/> Total <input type="checkbox"/> 1664	PESTICIDES (EPA 8080) <input type="checkbox"/> PCB'S (EPA 8080)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	AIR METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	W.E.T. (STIC) <input type="checkbox"/> TCLP	Hexavalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)	NUMBER OF CONTAINERS
#1	12.15.00	8:45	SOIL	✓	✓		✓														
#2	12.15.00	8:50		✓	✓		✓														
#3	12.15.00	8:55		✓	✓		✓														
#4 } C	12.15.00	9:00		✓	✓		✓														
#5 } C	12.15.00	9:05		✓	✓		✓														
#6 } C	12.15.00	9:20		✓	✓		✓														
#7 } C	12.15.00	9:25		✓	✓		✓														
#8 } C	12.15.00	9:30		✓	✓		✓														
#9 } C	12.15.00	9:45		✓	✓		✓														

PROJECT INFORMATION		SAMPLE RECEIPT			
PROJECT NAME <u>JORDAN RANCH</u>	TOTAL NO. OF CONTAINERS				
PROJECT NUMBER <u>Sublin CA</u>	HEAD SPACE				
P.O. #	TEMPERATURE				
TAT	CONFORMS TO RECORD				
STANDARD 5-DAY	24	48	72	OTHER	

RELINQUISHED BY 1.  (SIGNATURE) (TIME) <u>12:00 PM</u> (PRINTED NAME) (DATE) <u>B. C. C.</u> (COMPANY)	RELINQUISHED BY 2.	RELINQUISHED BY 3.
RECEIVED BY 1. (SIGNATURE) (TIME) (PRINTED NAME) (DATE) (COMPANY)	RECEIVED BY 2.	RECEIVED BY (LABORATORY) 3.  (SIGNATURE) (TIME) <u>3:00</u>  (PRINTED NAME) (DATE) <u>12/15/00</u> (LAB)

SPECIAL INSTRUCTIONS/COMMENTS:  
 Report:  Routine  Level 2  Level 3  Level 4  Electronic Report  
Composite 4+5; 6+7; 8+9  
the rest discrete.

# CHROMALAB, INC.

Environmental Services (SDB) (DOHS 1084)

2000-12-0300

1220 Quarry Lane • Pleasanton, California 94566-4756

(925) 484-1919 • Fax (925) 484-1096

12/21

Chain of Custody

DATE 12.15.00 PAGE 2 OF 2

PROJECT INFORMATION					ANALYSIS REPORT															
PROJ. MGR	COMPANY <u>D.C.C.</u>				TPH-EPA 8015,8020	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M)	PURGEABLE HALOCARBONS (CHVOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	Oil & Grease	PESTICIDES (EPA 8080)	PNA's by	LUFT METALS:	CAM 17 METALS	TOTAL LEAD	W.E.T. (STLC)	Hexavalent Chromium	NUMBER OF CONTAINERS
ADDRESS	SAMPLERS (SIGNATURE)				<input type="checkbox"/> Gas w/ <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE	<input type="checkbox"/> BTEX (EPA 8020)	<input type="checkbox"/> Diesel <input type="checkbox"/> M.O. <input type="checkbox"/> Other	<input type="checkbox"/> Diesel <input type="checkbox"/> M.O. <input type="checkbox"/> Other	<input type="checkbox"/> Total <input type="checkbox"/> 1664	<input type="checkbox"/> Pesticides (EPA 8080)	<input type="checkbox"/> PCB's (EPA 8080)	<input type="checkbox"/> 8270 <input type="checkbox"/> 8310	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	Cd, Cr, Pb, Ni, Zn	EPA 6010/7470/7471	<input type="checkbox"/> W.E.T. (STLC) <input type="checkbox"/> TCLP	<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)			
SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.																
H 10	12.15.00	10:00	Soil	✓																
H 11	12.15.00	10:15		✓																
H 12	12.15.00	10:30		✓																
H 13	12.15.00	10:45		✓																
H 14	12.15.00	1:15		✓																

**PROJECT INFORMATION**

PROJECT NAME: Jordan Ranch Subsite

PROJECT NUMBER: \_\_\_\_\_

P.O. # \_\_\_\_\_

TAT:  STANDARD 5-DAY

SPECIAL INSTRUCTIONS/COMMENTS:  
Report:  Routine  Level 2  Level 3  Level 4  Electronic Report

**SAMPLE RECEIPT**

TOTAL NO. OF CONTAINERS: \_\_\_\_\_

HEAD SPACE: \_\_\_\_\_

TEMPERATURE: \_\_\_\_\_

CONFORMS TO RECORD: \_\_\_\_\_

RELINQUISHED BY	RECEIVED BY	RECEIVED BY (LABORATORY)
1. <u>[Signature]</u> 12:00 (SIGNATURE) (TIME) <u>Robert von...</u> 12.15.00 (PRINTED NAME) (DATE) <u>D.C.C.</u> (COMPANY)	2. _____ (SIGNATURE) (TIME) _____ (PRINTED NAME) (DATE) _____ (COMPANY)	3. <u>[Signature]</u> 3:00 (SIGNATURE) (TIME) <u>CRISTINA</u> 15:00 (PRINTED NAME) (DATE) <u>[Signature]</u> 12/15/00 (LAB)



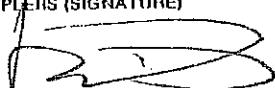
JAN 11 2001  
**CHROMALAB, INC.**  
 Borlogar Geotechnical Consultants

2000-12-0300  
 1220 Quarry Lane • Pleasanton, California 94566-4756  
 (925) 484-1919 • Fax (925) 484-1096

renc 21-2-2001  
**Chain of Custody**

Environmental Services (SDB) (DOHS 1094)

DATE 12.15.00 PAGE 1 OF 1

PROJ. MGR WUDDIE STEPHENS  
 COMPANY BERLOGAR GEOTECH.  
 ADDRESS 5587 SURREY BLVD  
PLEASANTON, CA 94566  
 SAMPLERS (SIGNATURE)  (PHONE NO.) (925) 484-0220  
 (FAX NO.)

**ANALYSIS REPORT**

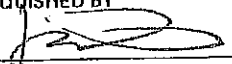
SAMPLE ID	DATE	TIME	MATRIX	PRESERV.	TPH (EPA 8015, 8020) <input type="checkbox"/> Gas w/ <input type="checkbox"/> BTEX <input type="checkbox"/> MTBE	PURGEABLE AROMATICS BTX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) <input type="checkbox"/> Diesel <input type="checkbox"/> M.O. <input type="checkbox"/> Other	PURGEABLE HALO CARBONS (HYOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	Oil & Grease <input type="checkbox"/> Petrol <input type="checkbox"/> Total <input type="checkbox"/> 1664	<input type="checkbox"/> PESTICIDES (EPA 8080) <input type="checkbox"/> PCB'S (EPA 8080)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	AIR METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	<input type="checkbox"/> W.E.T. (STLC) <input type="checkbox"/> TCLP	<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)	NUMBER OF CONTAINERS	
#1	12.15.00	8:45	SOIL	φ	✓		✓															
#2	12.15.00	8:50		φ	✓		✓															
#3	12.15.00	8:55		φ	✓		✓															
#4 } #5 } #6 } #7 } #8 } #9 }	12.15.00	9:00		φ	✓		✓															
	12.15.00	9:05		φ	✓		✓															
	12.15.00	9:20		φ	✓		✓															
	12.15.00	9:25		φ	✓		✓															
	12.15.00	9:30		φ	✓		✓															
	12.15.00	9:45		φ	✓		✓															

**PROJECT INFORMATION**  
 PROJECT NAME: JORDAN RANCH  
 PROJECT NUMBER: Sublot C  
 P.O. #  
 TAT:  STANDARD 5-DAY

**SAMPLE RECEIPT**  
 TOTAL NO. OF CONTAINERS: 24  
 HEAD SPACE: 48  
 TEMPERATURE: 72  
 CONFORMS TO RECORD:

SPECIAL INSTRUCTIONS/COMMENTS:  
 Report:  Routine  Level 2  Level 3  Level 4  Electronic Report  
Composite 4+5; 6+7; 8+9  
the rest discrete.

**RELINQUISHED BY**

1. SIGNATURE:  (TIME) \_\_\_\_\_ (DATE) \_\_\_\_\_  
 PRINTED NAME: J. C. C. (DATE) \_\_\_\_\_  
 COMPANY: \_\_\_\_\_

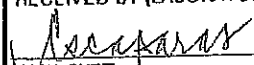
2. SIGNATURE: \_\_\_\_\_ (TIME) \_\_\_\_\_ (DATE) \_\_\_\_\_  
 PRINTED NAME: \_\_\_\_\_ (DATE) \_\_\_\_\_  
 COMPANY: \_\_\_\_\_

3. SIGNATURE: \_\_\_\_\_ (TIME) \_\_\_\_\_ (DATE) \_\_\_\_\_  
 PRINTED NAME: \_\_\_\_\_ (DATE) \_\_\_\_\_  
 COMPANY: \_\_\_\_\_

**RECEIVED BY**

1. SIGNATURE: \_\_\_\_\_ (TIME) \_\_\_\_\_ (DATE) \_\_\_\_\_  
 PRINTED NAME: \_\_\_\_\_ (DATE) \_\_\_\_\_  
 COMPANY: \_\_\_\_\_

2. SIGNATURE: \_\_\_\_\_ (TIME) \_\_\_\_\_ (DATE) \_\_\_\_\_  
 PRINTED NAME: \_\_\_\_\_ (DATE) \_\_\_\_\_  
 COMPANY: \_\_\_\_\_

3. SIGNATURE:  (TIME) 3:00  
 PRINTED NAME: CAUSEVA (DATE) 12/15/00  
 LAB: CL