October 11, 1993

93 OCT 14 PM 12: 15

Attn: Barney Chan
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 350
Oakland, CA 94621

Attn: Richard Hiett
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, CA 94612

Dear Gentlemen,

Please find attached a copy of Artesian Environmental Consultants comprehensive report on Impacted Soil at 4341 Haward St., Oakland, CA, dated Oct. 6, 1993.

You will note the project was started in November, 1991, and came to a conclusion on August 26, 27, and 31, 1993. I would like to particularly thank Mr. Chan for his supervision and close-working relationship with our consultants - Artesian Environmental.

Sincerely,

James R. Minor

Attachments

7/27/93

1st monitoring event

ARTESIAN ENVIRONMENTAL CONS 93 OCT 14 PM 12: 16

October 6, 1993

Mr. Jim Minor
P.O. Box 726
Diablo, CA 94528

RE: Overexcavation of Hydrocarbon Impacted Soil at 4341 Howard Street, Oakland, CA

Dear Mr. Minor,

Artesian Environmental Consultants (Artesian), a general engineering and drilling contractor with hazardous waste removal certificate (#624461), is pleased to submit this letter report regarding the results of overexcavation activities performed at 4341 Howard Street, Oakland, California- formerly El Monte RV Center (see Figure 1).

BACKGROUND

On November 15, 1991 a 1,000 gallon gasoline underground storage tank (UST) was removed from the 4341 Howard Street site by Zaccor Corp. of Menlo Park, California. Soil samples taken at the time of the tank removal indicated up to 8,200 parts per million (ppm) total petroleum hydrocarbons as gasoline (TPH-g), 33 ppm benzene (B), 93 ppm toluene (T), 75 ppm ethylbenzene (E), and 330 ppm total xylenes (X).

After removal of the tank the excavation was backfilled with clean imported fill material. The dispenser was removed. The product line was left in place. Stockpiled soil was left on-site.

On June 7, 1993 Artesian was contracted to overexcavate the contaminated soil, remove the existing and generated stockpiled soil, and install a groundwater monitoring well.

FIELDWORK

Work was begun on-site on June 24, 1993, after approval of a workplan and site safety plan by Mr. Barney Chan of the Alameda County, Department of Environmental Health.

Overexcavation

On June 24, 1993 Artesian personnel carried out the initial work by excavating down to the location of the former UST base, approximately 8 feet below ground surface. Soils were excavated by backhoe. The excavation was widened and deepened in an effort to overexcavate the hydrocarbon impacted soil. A photoionization detector was used to screen field samples at periodic intervals. All soils were stockpiled on-site. The stockpile was placed on bermed plastic sheeting and covered by weighted plastic sheeting to prevent any secondary site contamination.

ARTESIAN ENVIRONMENTAL CONSULTANTS

October 6, 1993

Mr. Jim Minor
P.O. Box 726
Diablo, CA 94528

Dup

RE: Overexcavation of Hydrocarbon Impacted Soil at 4341 Howard Street, Oakland, CA

Dear Mr. Minor,

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Excavation revealed a light brown sandy fill material to 2 feet below ground surface. Below this was a one foot black waxy clay layer. Underlying this was an olive green sandy silt with a hydrocarbon odor. Below the sandy silt layer was another black waxy clay layer approximately 2 feet thick. Underlying this was an olive green sandy silt with a hydrocarbon odor to the bottom of the excavation at 10 feet below ground surface. Groundwater was encountered in the excavation at 10 feet below ground surface.

Approximately 110 yards of hydrocarbon impacted soil was excavated and stockpiled on-site. The olive green coloration of the soil persisted throughout the entire excavation process.

Soil samples were taken from each of the four sidewalls of the excavation at 8 feet below ground surface. Sample SW-1 was taken from the west sidewall, sample SW-2 was taken from the northeast sidewall, sample SW-3 was taken from the southeast sidewall, and sample SW-4 was taken from the north sidewall. The analytical results of this sampling event are provided in Table 1. The lab reports are included in Appendix A.

Soils were sampled according to Artesian's standard operating procedures (SOP) included in Appendix D. All samples were sent to Chromalab, Inc. of San Ramon, California. Chromalab is certified by the state of California for the analyses performed.

On August 19, 1993 the excavation was backfilled with clean imported backfill material purchased from Rock Transport of Oakland, California.

Groundwater Monitoring Well Installation

On June 25, 1993 Artesian personnel supervised Ed Svoboda Guess Drilling of San Rafael, California in the installation of a groundwater monitoring well (MW-1). A SOP for groundwater monitoring well installation and sampling is included in Appendix D.

Groundwater monitoring well MW-1 was placed approximately 10 feet from the edge of the excavation in the groundwater downgradient direction. The westerly groundwater gradient flow direction was based on wells at the neighboring Bank of America site located at 500 High Street, adjacent to the subject site.

Groundwater monitoring well MW-1 was constructed with two inch diameter Schedule 40, factory threaded and slotted polyvinyl chloride casing. A slot size of 0.020 inches was selected based on the knowledge that the predominant soil type at this site is a sandy silt. The slotted interval extends from 5 feet above first groundwater to 10 feet below first groundwater, to a total depth of 20 feet. Groundwater was encountered at 10 feet below ground surface. The annular space around the 0.020 inch slotted sections of casing was packed with lonestar #3 sand (LS#3 = 1.5 mm) as filter material, from the bottom of the borehole to approximately 3 feet below ground surface. A well completion log for well MW-1 is included in Appendix B.

Two soil samples were taken at the time of drilling at five and ten feet below ground surface. Both samples indicated not detected at or above the detection limit (ND) levels for TPH-g and BTEX. A groundwater grab sample taken at the time of drilling also indicated ND levels for TPH-g and BTEX. All samples were sent to Chromalab, Inc. of San Ramon, California. Chromalab is certified by the state of California for the analyses performed.

On June 28, 1993 the monitoring well MW-1 was developed following Artesian Environmental's SOP for well development which is included in Appendix D.

On July 27,1993 groundwater monitoring well MW-1 was sampled following Artesian's SOP for well sampling. Results of this sampling analyses indicated 0.25 ppm TPH-g and 1.7 parts per billion (ppb) benzene; toluene, ethylbenzene, and xylenes were all below reporting limits (ND). The lab reports for these analyses are included in Appendix A.

Borehole Investigation

On August 26 and 27, 1993 a borehole investigation of the site was conducted to delineate any possible contaminant migration. A total of six boreholes were drilled using a Geoprobe discrete sampling tool. A SOP for continuous coring tools is included in Appendix D.

Sample 6CC-8 was taken below the former dispenser location. See Figure 2 for the location of the other boreholes. All samples obtained using the Geoprobe system were taken from 8 feet below ground surface.

All borehole samples indicated ND levels for TPH-g and BTEX. All samples were sent to Chromalab, Inc. of San Ramon, California. The lab reports for these analyses are included in Appendix A.

Also on August 27, 1993 the product line was filled with neat cement by tremie pipe.

Stockpile Removal

On August 31, 1993 Artesian personnel supervised and documented the removal of the stockpiled soil. The stockpiled soil (110 cubic yards) was transported to Gibson Environmental of Bakersfield, California by Caballero Trucking of San Jose, California for recycling. Transportation documentation is included in Appendix C.

REPORTAGE

A copy of this report, along with a cover letter, should be sent to the addresses listed below.

Attn: Barney Chan
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 350
Oakland, California 94621

Attn: Richard Hiett
Regional Water Quality Control Board
2101 Webster Street
Suite 500
Oakland, California 94612

LIMITATIONS

The authors and firm offer no assurance and assume no responsibility for site conditions or activities which were beyond the scope of work requested by the client and referenced in the introduction of this report. This report was prepared with generally accepted standards of environmental geological practice in California at the time this investigation was performed. This investigation was conducted solely as a tool in assessing environmental conditions of the soil and/or groundwater with respect to relative hydrocarbon product contamination in the immediate vicinity of the former underground storage tank. Evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. There may be variations in subsurface conditions away from the sample points available. This report and all matters contained herein were prepared for the sole and exclusive benefit of the client specified herein, and is intended only for the use of the client.

Sincerely,

REGISTERED GEOLOGIST
JAMES A. JACOBS
NO. 4815
STATE OF CALIFORNIA

Darrell Taylor
Project Geologist

James A Jacobs, R.G. #4815
Principal Geologist

TABLE 1. ANALYTICAL RESULTS

Sample ID	Date	TPH-g	Benzene	Toluene	Ethylbenzene	Xylenes
SW-1	6/24/93	120	690	<0.1	5.7	0.87
SW-2	6/24/93	400	3600	15	12	41
SW-3	6/24/93	36	880	<0.03	2.9	0.037
SW-4	6/24/93	410	7200	180	11	55
MS-1	6/25/93	<1	<0.005	<0.005	<0.005	<0.005
MS-2	6/25/93	<1	<0.005	<0.005	<0.005	<0.005
MW-1(grab)	6/25/93	<1	<0.0005	<0.0005	<0.0005	<0.0005
1CC-8	7/26/93	<1	<0.0005	<0.0005	<0.0005	<0.0005
2CC-8	7/26/93	<1	<0.0005	<0.0005	<0.0005	<0.0005
4CC-8	7/26/93	<1	<0.0005	<0.0005	<0.0005	<0.0005
5CC-8	7/26/93	<1	<0.0005	<0.0005	<0.0005	<0.0005
6CC-8	7/27/93	<1	<0.0005	<0.0005	<0.0005	<0.0005
MW-1	7/27/93	0.25	0.0017	<0.0005	<0.0005	<0.0005

All Values Given In Parts Per Million

TPH-g = Total Petroleum Hydrocarbons as Gasoline

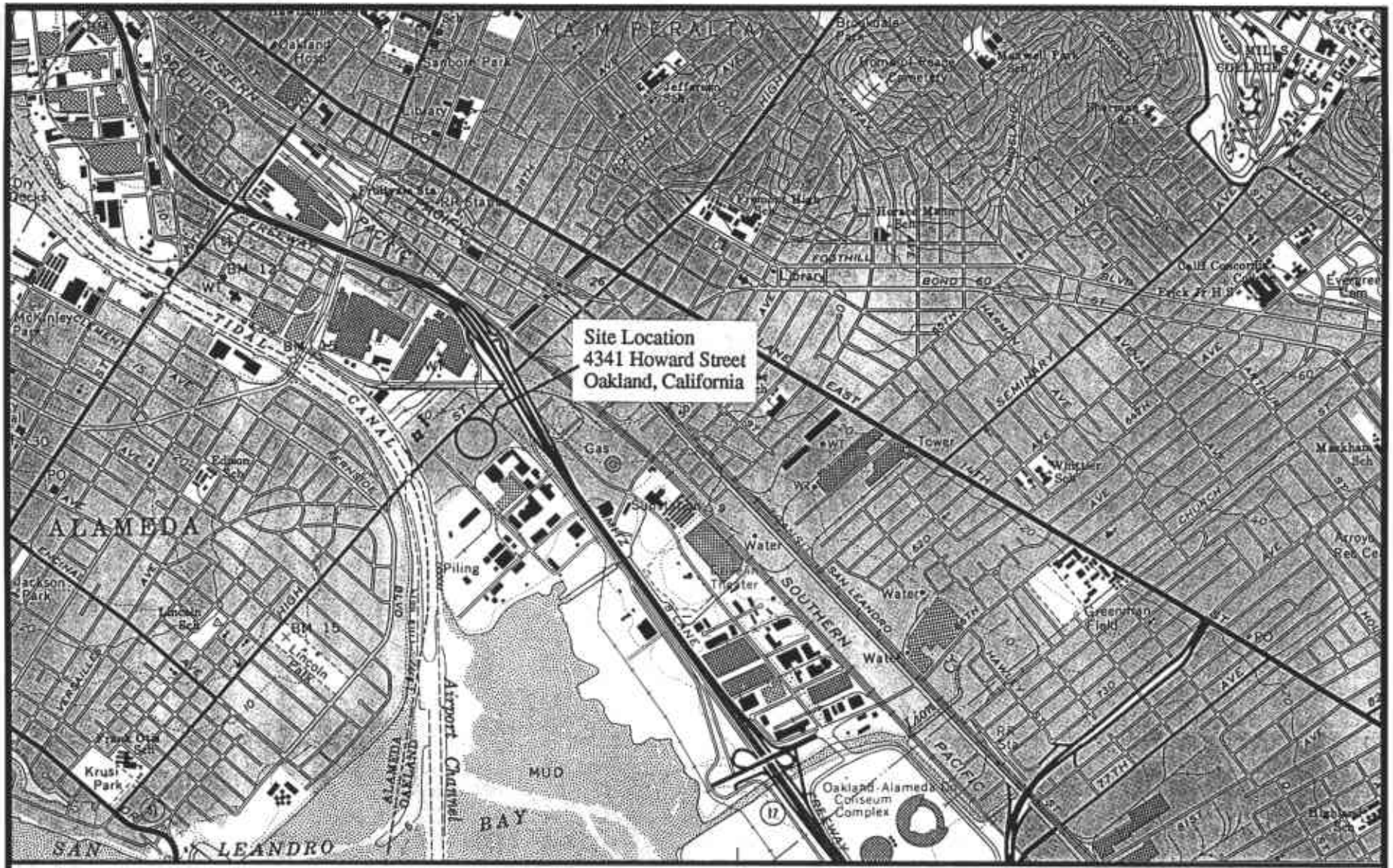
SW-# = Sidewall Sample (all at 8' below ground surface)

MS-# = Monitoring Well Soil Sample

MW-1(grab) = Water Grab Sample Taken During Well Installation

#CC-8 = Geoprobe Soil Sample (all at 8' below ground surface)

MW-1 = Groundwater Monitoring Well Water Sample



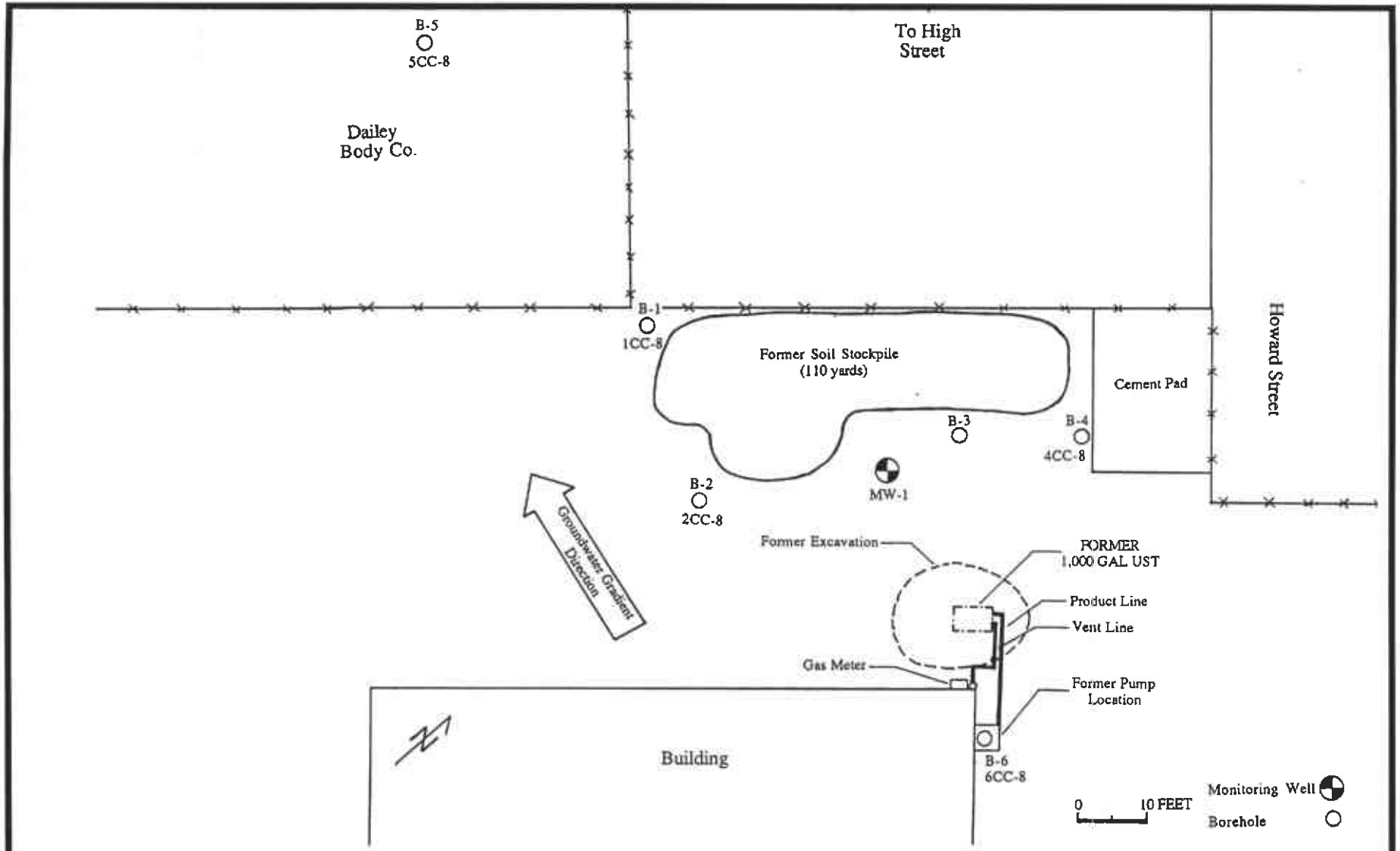
Site Map

Jim Minor Site
4341 Howard Street
Oakland, California

OAKLAND EAST, CALIF.
SW/4 CONCORD 15' QUADRANGLE
N3745—W12207.5/7.5

1959
PHOTOREVISED 1980
DMA 1559 I SW-SERIES V895

Project No. 100-001-01	Date: 9/8/93	Drawn by: DT	Figure 1



Site Map

4341 Howard Street
Oakland, California

Project No. 100-001-01	Date: 9/2/93	Drawn by: DT	Figure 2

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

July 6, 1993

ChromaLab File No.: 9306344
Submission #: 9306000344

ARTESIAN ENV. CONSULTANTS

Attn: Jim Jacobs

RE: Six soil samples for Gasoline and BTEX analysis

Project Name: JIM MIROR
Project Number: 100-001-01
Date Sampled: June 25, 1993
Date Submitted: June 28, 1993
Date Analyzed: June 29, 1993

RESULTS:

Sample I.D.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
SW-1	120	690	N.D.**	5700	870
SW-2	400	3600	15000	12000	41000
SW-3	36	880	N.D.*	2900	37
SW-4	410	7200	18000	11000	55000
MS-1	N.D.	N.D.	N.D.	N.D.	N.D.
MS-2	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	116%	98%	97%	104%	106%
DUP SPIKE RECOVERY	---	88%	88%	96%	98%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

* Detection limit= 30 µg/Kg due to dilutions needed.
** Detection limit= 100 µg/Kg due to dilutions needed.

ChromaLab, Inc.,

Eric Costa
Analytical Chemist

Eric Tam
Laboratory Director

do

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

July 6, 1993

ChromaLab File No.: 9306344
Submission #: 9306000344

ARTESIAN ENV. CONSULTANTS

Attn: Jim Jacobs

RE: One water sample for Gasoline and BTEX analysis

Project Name: JIM MIROR
Project Number: 100-001-01
Date Sampled: June 25, 1993
Date Submitted: June 28, 1993
Date Analyzed: June 30, 1993

RESULTS:

Sample I.D.	Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)
MW-1	N.D.*	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	93%	100%	97%	99%	98%
DUP SPIKE RECOVERY	---	99%	98%	106%	104%
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/8015	602	602	602	602

* 2 unknown peaks in early gasoline range. If quantified as gasoline, concentration is 370 µg/L.

ChromaLab, Inc.,

Eric Costa
Analytical Chemist

Eric Tam
Laboratory Director

do

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

Artesian

CHAIN OF CUSTODY

order # 12274
344/9491
9497

GASOLINE

SAMPLERS: (Signature) Pamela Taylor

PROJECT NAME: Jim Minor JOB NUMBER: 100-001-01

DESCRIPTION: OVER EXCAVATION SIDEWALL SAMPLES + MONITORING WELL INSTALL SAMPLES

ADDRESS: 4341 HOWARD ST, OAKLAND CA

ANALYSIS REQUESTED

SUBM #: 9306000344
CLIENT: ARTESIA
DUE: 07/06/93
REF: 12274

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER		STATION LOCATION	TOTAL PETROLEUM	BTX & E	VOC - EPA 8240	TOTAL OIL & GREA	TETRAETHYL LEAD				REMARKS
MW-1	6-25-93	9:15	X	X	3 VOA	MW-1 WATER AT 10' BGS	X	X							
SW-1	6-24-93	3:30	X		1	WEST SIDEWALL 8' BGS	X	X							
SW-2	6-24-93	3:45	X		1	NORTH EAST SIDEWALL 8' BGS	X	X							TAKE SAMPLE 12" FROM END OF TUBE
SW-3	6-24-93		X		1	SOUTH EAST SIDEWALL 8' BGS	X	X							
SW-4	6-24-93	4:15	X		1	NORTH SIDEWALL 8' BGS	X	X							
MS-1	6-25-93	8:45	X		1	MONITORING WELL BORING MW-1 5' BGS	X	X							
MS-2	6-25-93	9:00	X		1	MONITORING WELL BORING MW-1 10' BGS	X	X							LOCKING TAT

RELINQUISHED BY: (Signature) Pamela Taylor	DATE 6-28-93 TIME 11:30	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature) B. Howell	DATE 6-28-93 TIME 11:34

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

August 4, 1993

ChromaLab File No.: 9307302
Submission #: 9307000302

ARTESIAN ENV. CONSULTANTS

Attn: Jim Jacobs

RE: Five soil samples for Gasoline and BTEX analysis

Project Name: JIM MINOR
Project Number: 100-001-01
Date Sampled: July 26-27, 1993 Date Submitted: July 28, 1993
Date Analyzed: August 2, 1993

RESULTS:

Sample I.D.	Gasoline (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)
1CC-8	N.D.	N.D.	N.D.	N.D.	N.D.
2CC-8	N.D.	N.D.	N.D.	N.D.	N.D.
4CC-8	N.D.	N.D.	N.D.	N.D.	N.D.
5CC-8	N.D.	N.D.	N.D.	N.D.	N.D.
6CC-8	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	111%	102%	106%	102%	107%
DUP SPIKE RECOVERY	---	100%	104%	105%	107%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

ChromaLab, Inc.

Jack Kelly
Analytical Chemist

Eric Tam
Laboratory Director

do

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

August 3, 1993

ChromaLab File No.: 9307302
Submission #: 9307000302

ARTESIAN ENV. CONSULTANTS

Attn: Jim Jacobs

RE: One water sample for Gasoline and BTEX analysis

Project Name: JIM MINOR
Project Number: 100-001-01
Date Sampled: July 27, 1993
Date Submitted: July 28, 1993
Date Analyzed: August 3, 1993

RESULTS:

Sample I.D.	Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)
MW-1	250	1.7	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	100%	104%	101%	104%	106%
DUP SPIKE RECOVERY	---	109%	106%	106^	109%
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/8015	602	602	602	602

ChromaLab, Inc.

Billy Thach
Analytical Chemist

Eric Tam
Laboratory Director

do

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

PROJ. NO.	PROJECT NAME	NO.
100-001-01	Jim Minor	

SAMPLERS: Signature: Darrell Taylor

Send report attention to: DARRELL TAYLOR

SUBN #: 9307302
CLIENT: ARTESIA
DUE: 08/04/93
REF: 12594

STA NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TPH-g + BTEX								REMARKS
1cc-8	7-26-93	10:00 Am		X	BOREHOLE #1 - 8'BGS	SOIL 1 TUBE	X								
2cc-8	7-26-93	12:35 pm		X	BOREHOLE #2 - 8'BGS	SOIL 1 TUBE	X								
4cc-8	7-26-93	2:45 pm		X	BOREHOLE #4 - 8'BGS	SOIL 1 TUBE	X								
5cc-8	7-26-93	3:20 pm		X	BOREHOLE #5 - 8'BGS	SOIL 1 TUBE	X								
6cc-8	7-27-93	11:40 Am		X	BOREHOLE #6 - 8'BGS	SOIL 1 TUBE	X								
MW-1	7-27-93	12:20 pm		X	GROUNDWATER MONITORING WELL #1	WATER 3-40mL VOA	X								

Relinquished by:Signature	Date/Time	Received by:Signature	Date/Time
Darrell Taylor	7-28-93/ 355	[illegible]	7-28 1555
[illegible]	7-28 1658	[illegible]	7/28/93 1658

REMARKS:

5 DAY TAT

Company Name
Address
CHROMA LAB
2239 OMEGA ROAD #1
SAN RAMON, CA 94583
(510) 831-1788

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 Kerner Blvd., Suite E · San Rafael, CA · 94901 · (415) 257-4801 · FAX (415) 257-4805

CHROMALAB, INC.

Environmental Laboratory (1094)

5 DAYS TURNAROUND

August 27, 1993 ChromaLab File No.: 9308351

ARTESIAN ENV. CONSULTANTS

RE: One soil sample for TCLP RCRA Metals analyses

Project Name: JIM MINOR
Work Order Number: 100-001-01
Date Sampled: August 25, 1993 Date Submitted: August 26, 1993
Date Analyzed: August 27, 1993

RESULTS: Sample I.D.: S100/S101/S102

Metals	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Levels (mg/L)
Arsenic (As)	N.D.	0.05	5
Barium (Ba)	1.3	0.05	100
Cadmium (Cd)	0.02	0.01	1
Chromium (Cr)	N.D.	0.10	5
Lead (Pb)	0.8	0.10	5
Mercury (Hg)	N.D.	0.005	0.2
Selenium (Se)	0.59	0.05	1
Silver (Ag)	0.06	0.05	5

Method of Analysis: 1311/3010/6010/7470

ChromaLab, Inc.

Charles Woolley
Analytical Chemist

Refaat A. Mankarious
Inorganic Supervisor

cc

2239 Omega Road,#1 • San Ramon, California 94583
(510) 831-1788 • Facsimile (510) 831-8798
Federal ID #68-0140157

PROJ. NO.	PROJECT NAME	NO.
100 001 01	Jim Minor	

SAMPLERS: Signature: [signature] Send report attention to

SUBM #: 9308351
CLIENT: ARTESIA
DUE: 08/27/93
REF: 13009

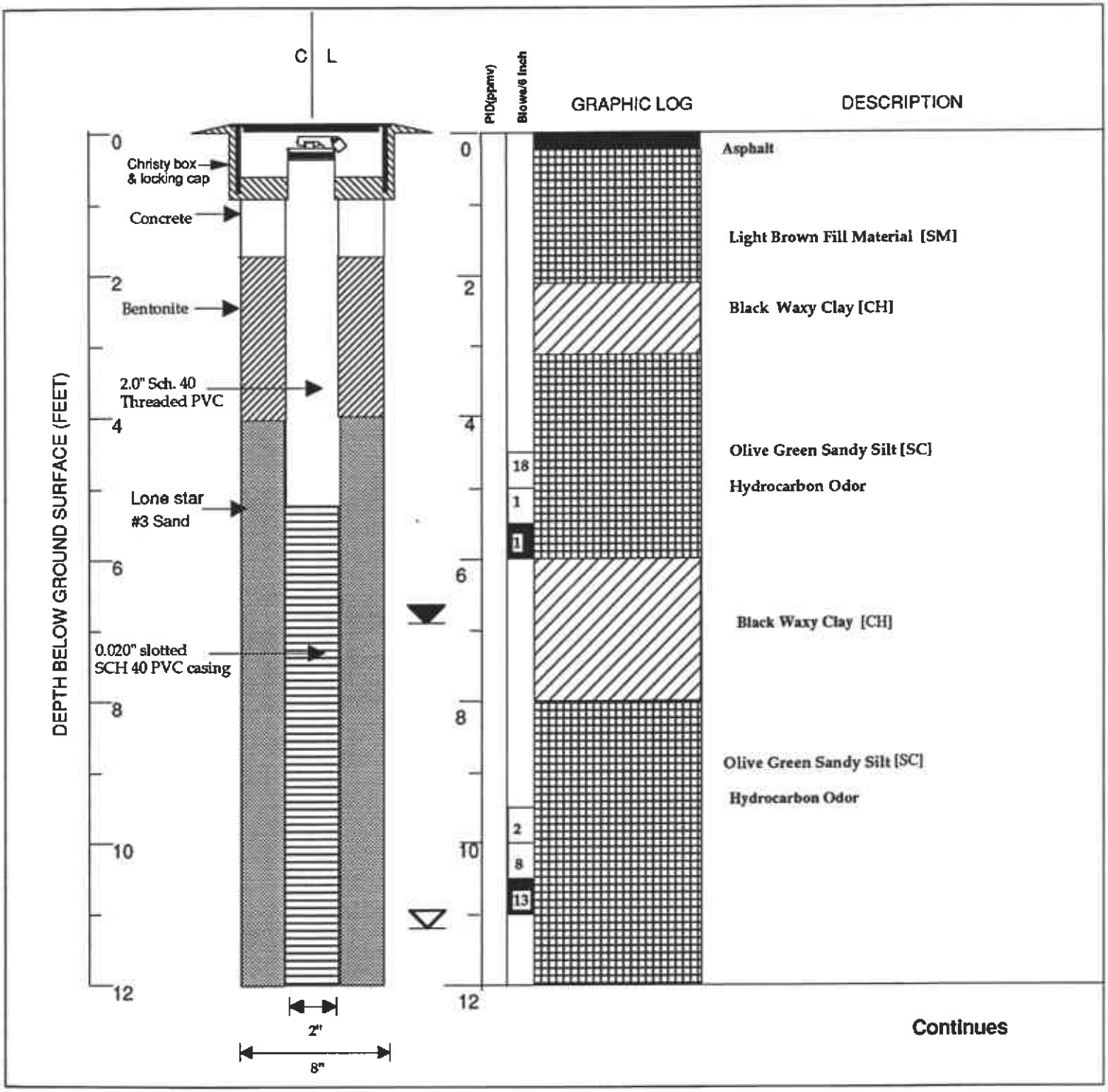
STA NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCLP 8 metals								REMARKS
S100	8/25/93	2:30			Southeast side of stockpile	1	X								composite
S101	8/25/93	2:32			Middle east side of stockpile	1	X								composite
S102	8/25/93	2:35			Northeast side of stockpile	1	X								composite

Relinquished by: Signature	Date/Time	Received by: Signature	Date/Time
[signature]	8/25/93 14:42	[signature]	8/25/93 4:42
[signature]	8/26/93 12:03		
		[signature]	8-26-93 12:05

REMARKS: 24 HOUR T.AT.
COMPOSITE SAMPLES
S100, S101, S102

Company Name
Address

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 Kerner Blvd, Suite E · San Rafael, CA · 94901 · (415) 257-4801 · FAX (415) 257-4805



Logged by:	Darrell Taylor	Drilling Company:	Guess Drilling	Well Head Completion:	Flush Mounted Christy Box
Inspector:	NA	Drilling Method:	Mobile 53 Hollow Stem	Type of Sampler:	California Split Spoon
Dates Drilled:	6-25-93	Driller:	Ed Svoboda	TD (Total Depth):	20'

EXPLANATION

- Water level during drilling
- Water level in completed well
- Water level during drilling drill sample
- Location of sample sealed for chemical analysis
- Steve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

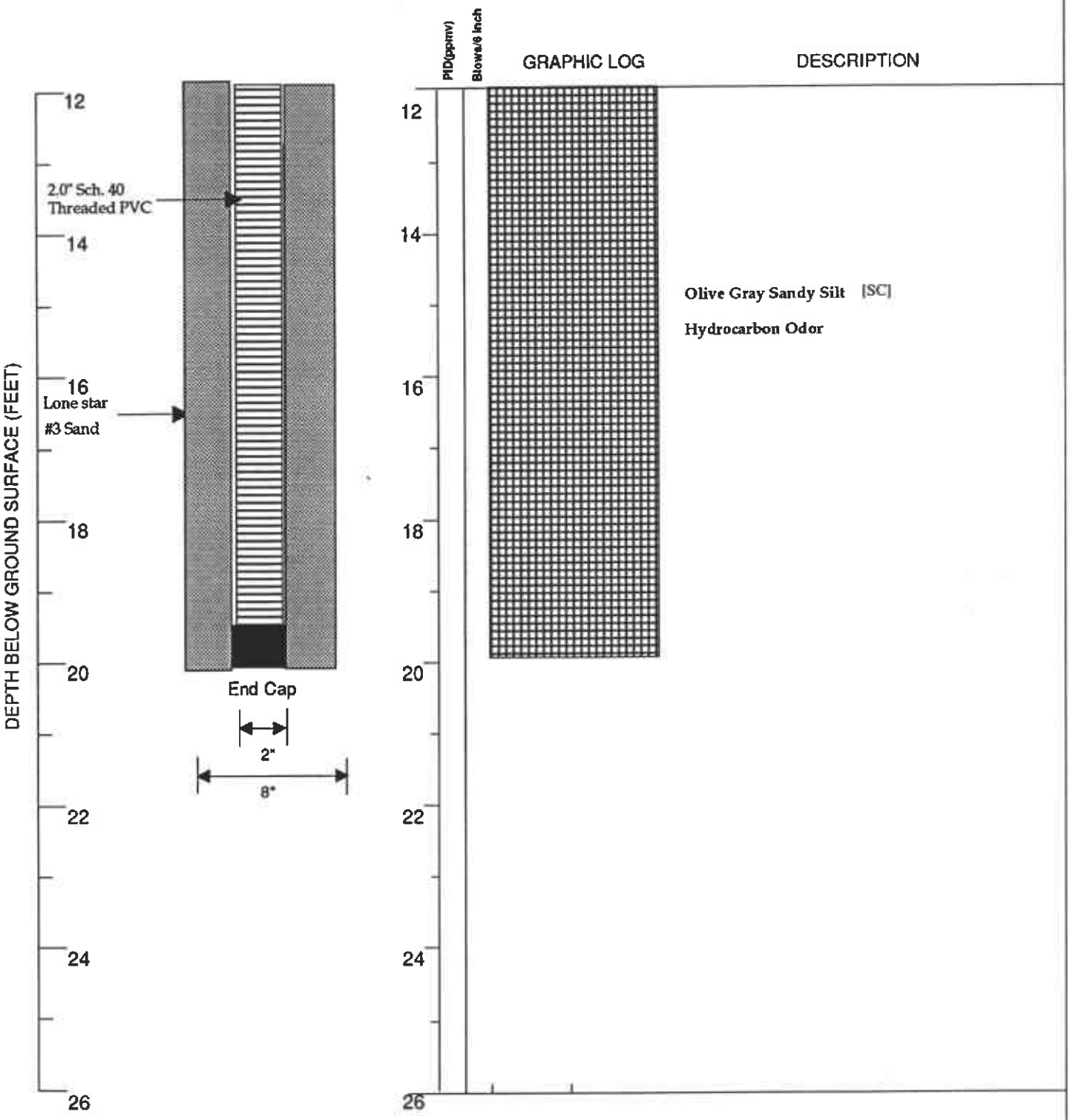
Boring Log and Well Completion Details
Monitor Well-1

Jim Minor Site
Former El Monte RV Center
4341 Howard Street
Oakland, California

MONITOR WELL 1

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BLVD. SAN RAFAEL, CALIFORNIA 94941 (415) 257-4801

Date:	By:	Job number:
9-8-93	DT	100-001-01



EXPLANATION

- Water level in completed well
- Water level during drilling
- Location of drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample

Contacts:
- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

- est K — Estimated permeability (hydraulic conductivity) 1K = primary 2K = secondary
- NR — No recovery

Boring Log and Well Completion Details
Monitor Well-1

Jim Minor Site
Former El Monte RV Center
4341 Howard Street
Oakland, California

MONITOR WELL
1

ARTESIAN ENVIRONMENTAL CONSULTANTS
3175 KERNER BLVD. SAN RAFAEL, CALIFORNIA 94941 (415) 257-4801

100-001-01

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		G W	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
				G P	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		G M	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
				G C	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	CLEAN SAND (LITTLE OR NO FINES)		S W	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		S M	SILTY SANDS, SAND-SILT MIXTURES
				SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS — LIQUID LIMIT LESS THAN 50			M L	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 SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS — LIQUID LIMIT GREATER THAN 50			M H	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				C H	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

KEY TO LOG OF BORINGS

SAMPLES & BLOWCOUNTS

- HAMMER BLOWS PER FOOT OF PENETRATION
- 30 ■ INDICATES UNDISTURBED SAMPLE
- ⊠ INDICATES DISTURBED SAMPLE
- ◪ STANDARD PENETRATION TEST SAMPLE
- NR - INDICATES NO RECOVERY

SAMPLES DRIVEN WITH A 140-POUND HAMMER DROPPING 30 INCHES

LABORATORY TESTS

AL	ATTERBERG LIMITS TEST
DSCU	DIRECT SHEAR TEST (Consolidated, Undrained)
CBR	CALIFORNIA BEARING RATIO TEST
COMP	COMPACTION TEST
CON	CONFINED COMPRESSION (Consolidation Test)
-200	PERCENT PASSING NO. 200 SIEVE (Test Results in Parentheses)

ARTESIAN ENVIRONMENTAL CONSULTANTS.
JOB SAFETY PLAN

Project location: 4341 Howard St., Oakland, California
Artesian Job #100-001-01

The possible hazards on this job are expected to be: physical hazards associated with working a backhoe, and the excavation of gasoline contaminated soil.

Possible chemical hazards from soil contaminated with gasoline or any pure product of the aforementioned substance.

Required personal protective equipment for this project: Level D protection (steel toe neoprene boots, coveralls, work gloves, hard hat, safety glasses), level C protection on standby (OV cartridges).

PAGER # (415) 258-5630

ARTESIAN ENVIRONMENTAL CONSULTANTS
JOB SAFETY PLAN

1. Site: Dailey Body Company (formerly, El Monte RV Center)

2. Location: 4341 Howard Street, California

3. Plan Prepared: Artesian Environmental Consultants Date: 6-8-93

4. Plan Approved: Darrell Taylor, PM _____
Jim Jacobs, RG _____

5. Facility Description: .Truck Body Shop

6. Status (active, inactive, unknown): Active.

7. Surroundings: Business; bounded by High Street on the north, businesses to the east, west, and south.

8. Site map: Attached

9. Climate: Moderate dry summers, cool wet winters.

10. Site history (origin of contamination and history of injuries exposure, chemical spills, complaints, etc.): A 1,000 galon underground gasoline storage tank was removed on November 15, 1991. Additional gasoline inmpacted soil was noted at this time.

11. Description of work: Overexcavation to extricate hydrocarbon impacted soil. Excavated soil will be stockpiled on visqueen, and will be covered with visqueen pending final disposition. The soil may be bioremediated before it is transported to a disposal facility.

12. Chemical contaminants:

Chemical	Media	Minimum	Maximum
Gasoline	Soil/pure product	0	Unknown

13. Procedures to mitigate hazards:

A) Mechanical Hazards
- verify that all equipment is in good condition
- barricade area or otherwise restrict access
- exercise caution when working in close proximity to the 580K backhoe, bobcat, and trench shoring plates.

B) Electrical Hazards

- locate and mark buried utilities before excavating
- maintain at least 10 feet of clearance from overhead power lines
- properly ground all electrical equipment
- avoid standing in water when operating electrical equipment

- be familiar with specific operating instructions for each piece of equipment
- barricade area or otherwise restrict access
- deactivate any source of ignition within 25 feet of work area

C) Chemical Hazards

- use personal protective equipment listed above
- conduct direct reading air monitoring to evaluate respiratory and explosion hazards
- wash hands before eating or drinking
- avoid hand to mouth contact before washing hands
- keep dust to a minimum, avoid breathing dust

D) Temperature Hazards

- Heat: when temperature exceeds 70 F, take frequent breaks in shaded area. Unzip or remove coveralls during breaks. Have cool water or electrolyte replenishment solution available. Drink small amounts frequently to avoid dehydration. Count the pulse rate for 30 seconds, as early as possible in the rest period: If the pulse rate exceeds 110 beats per minute at the beginning of the rest period, shorten the work cycle by one-third.

- Cold: wear multilayer cold weather outfits- the outer layer should be of wind-resistant fabric

- Wet: wear proper raingear and shoes with slip resistant tread

E) Acoustical Hazards

- use earplugs when noise level prevents conversation in normal voice at a distance of three feet

F) Organic Vapors

- monitor organic vapors. If total hydrocarbons exceed 5 ppm above background, don Level C personal protective equipment

- if total hydrocarbons exceed 500 ppm, supply mechanical ventilation

- monitor lower explosive limit. If LEL exceeds 20%, leave area and call the fire department

- no smoking within 25 feet of working area

- post no smoking signs

14. Decontamination procedures: Steam clean equipment before leaving work area. Wash boots and gloves. Launder coveralls. Wash hands and face as soon as possible after stopping work.

15. Materials generated on-site: Drum drill cuttings and decon water in DOT approved drums with proper labels and markings. Place soil stockpiles on visqueen and cover with weighted visqueen.

16. Site resources: water, restrooms, phone, electricity

Ambulance 911
Police 911
Fire Department 911
Oakland Hospital (510) 532-6300
2648 E 14th, Oakland, CA
Poison Control Center: 800-233-3360 or
415-821-8324
Project Manager: Office (415) 257-4801or
hm (510) 758-3341
Health & Safety Officer: Office (510) 633-

19. **Emergency route to Hospital:**
Exit Howard Street, go right onto High Street,
continue on High Street across 880 to E 14th,
Turn left onto E 14th,
Go down approximately 17 blocks down E 14th to the Oakland Hospital (2648 E 14th)

ALAMEDA HOSPITAL : LEFT ONTO HIGH STREET (~8 INTERSECTIONS)
RIGHT ONTO SANTA CLARA STREET
LEFT ONTO PARK STREET
RIGHT ONTO CLINTON STREET DOWN 5 INTERSECTIONS

20. Project personnel list and safety plan distribution record: All project staff must sign, indicating they have read and understand the safety plan.

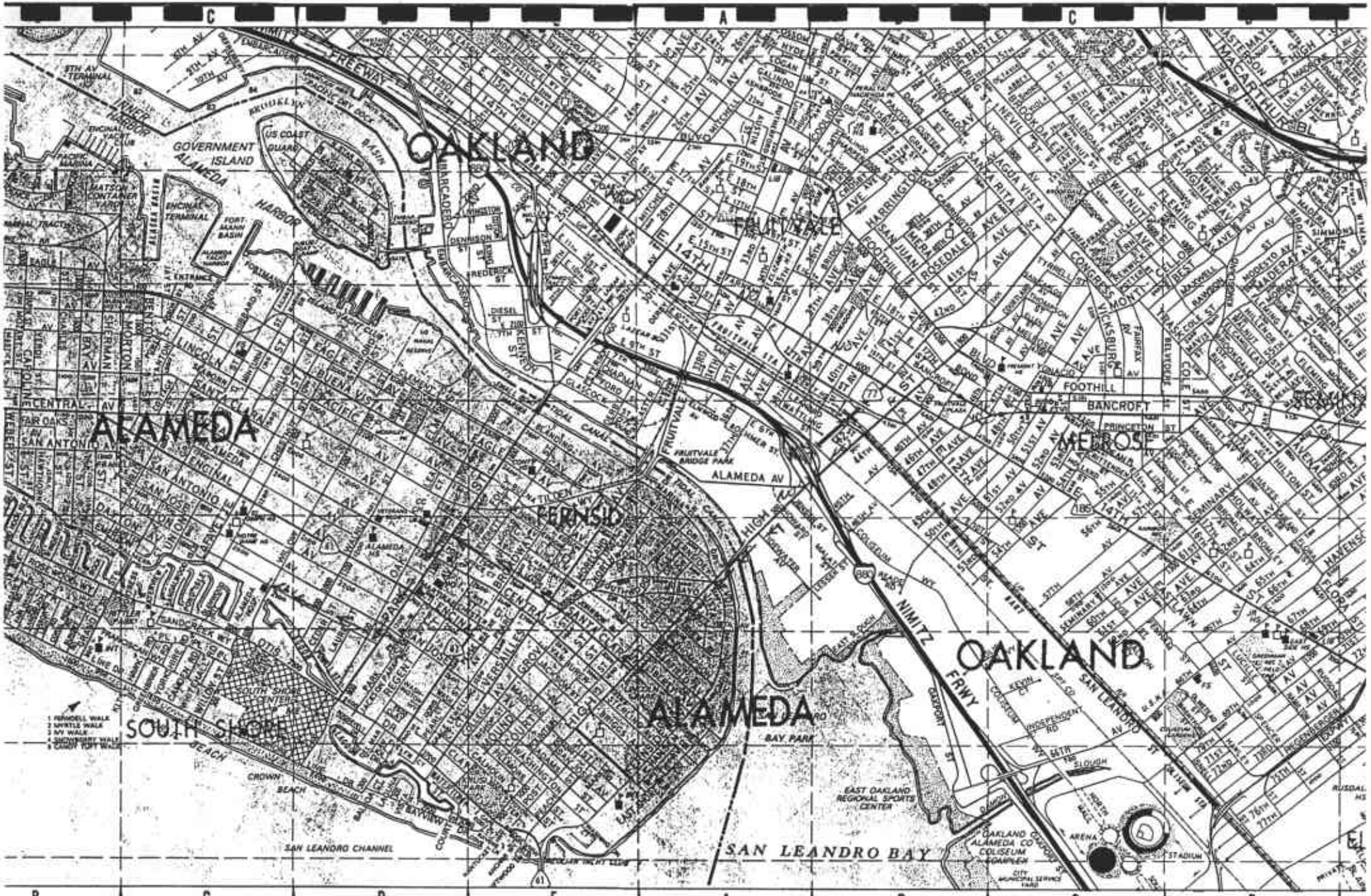
Employee Name	Date/Time	Signature
[illegible]	6-24-93	[illegible]
DANIELLE TAYLOR	6-24-93	[illegible]
VAUGHN ADAMSON	6-28-93	[illegible]
	8-19/93	BEN MIKA

21. Health and safety meeting: All personnel participating in the project must receive initial health and safety orientation. Thereafter, a brief "tailgate" safety meeting is required as deemed necessary by the Health and Safety Officer.

Name	Topics	Date	Employee Initial

22. Visitors: It is Artesians' policy that visitors must furnish his/her own personal protective equipment. All visitors are required to sign the visitor log and comply with the safety plan requirements.

Name of Visitor	Firm Name	Date/Time	Signature



~~OAKLAND HOSPITAL 2648 E 14th PH 532-6300~~

ALAMEDA HOSPITAL on WILLOW & CLINTON

ZONE 7 WATER AGENCY

6997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94568 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

CATION OF PROJECT 4341 Howard Street
Oakland, CA

NT
Jim Minor
dress PO Box 726 Phone
Diablo Zip 94528

PLICANT
me Scott Taylor
Artesian Envt. Consltg.
dress 3175 Kerner Blvd Phone 415 257-4801
y San Rafael CA Zip 94901

E OF PROJECT
ell Construction ✓ Geotechnical Investigation
athodic Protection ___ General ___
Water Supply ___ Contamination ___
Monitoring ✓ Well Destruction ___

POSED WATER SUPPLY WELL USE
omestic ___ Industrial ___ Other ___
unicipal ___ Irrigation ___

ILLING METHOD:
ud Rotary ___ Air Rotary ___ Auger ✓
e ___ Other ___

RILLER'S LICENSE NO. C57 605128

L PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 20 ft.
Surface Seal Depth 5-10 ft. Number one

EOTECHNICAL PROJECTS
Number of Borings ___ Maximum
Hole Diameter ___ in. Depth ___ ft.

IMATED STARTING DATE 6/25/93
IMATED COMPLETION DATE 6/25/93

reby agree to comply with all requirements of this permit and Alameda nty Ordinance No. 73-68.

APPLICANT'S
GNATURE Olivia facsimile for Scott Taylor Date 6/21/93

FOR OFFICE USE

PERMIT NUMBER 93339
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 21 Jun 93
Wyman Hong

31992

Pacific Gas and Electric Company

Central Division
4801 Oakport Street
Oakland, CA 94601

06-22-93

ARTESIAN ENVIRONMENTAL CONSULTANTS
Attn: OLIVIA JACOBS
3175 KERNER BLVD UNIT #E
SAN RAFAEL, CA 94901

Dear Sir or Madam:

Thank you for notifying PG&E of your intent to work in the vicinity of our underground facilities. Information about the location(s) is or will be provided by surface markings at the work site.

The message which we received from USA indicates work will be done for Ticket #184799-00 in the vicinity of:

et Address: 4341 HOWARD ST
oss Street: HIGH ST

We will exercise due care to ensure that our markings are as complete and accurate as reasonably possible. As you can appreciate, the nature of underground installation and construction prohibits any guarantee as to the absolute accuracy of surface markings. The precise location of underground facilities can only be determined by you, through careful hand-digging in complaince with California Government Code Section 4216, and Cal/OSHA Construction Safety Orders, Article 6, and Fed/OSHA Construction Safety and Health Standards, Subpart P.

We would like to emphasize the requirements to contact the appropriate regional notification center (Underground Service Alert, a.k.a. USA), at least two working days prior to the start of actual excavation and to delineate with white paint or other suitable markings the area to be excavated a specified in California Government Code Sections 4216.2(and) and 4216.2(e).

We call your attention to Section 1540 (a)(1) of the Construction Safety Orders (Title 8, California Administration Code Section 1540), issued by the Occupational Safety and Health Standards Board, pursuant to the California Occupation Safety and Health Act of 1973, which states:

"Prior to opening an excavation, effort shall be made to determine whether underground installations (i.e., sewer, water, fuel, electric lines, etc.) will be encountered and, if so, where such underground installations are located. When the excavation approaches the approximate location of such an installation, the exact location shall be determined by careful probing or hand-digging; and, when it is uncovered, adequate protection shall be provided for the existing installation. All known owners of underground facilities in the area concerned shall be advised of proposed work at least 48 hours (2 working days) prior to the start of actual excavation" (Call USA toll free 800-642-2444.)

Any further information you may desire may be obtained by contacting Denise Lee at 437-2211 (Gas Mapping).

Sincerely,

James C. Dunaway
Gas & Electric Operations Manager

JCD:la

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 4341 HOWARD ST.
OAKLAND, CA 94605

CLIENT
Name Tim Minor
Address P.O. Box 726 Voice (510) 833-4874
City DIABLO, CA Zip 94528

APPLICANT
Name DARRELL TAYLOR
ARTESIAN ENVIRONMENTAL Fax (415) 257-1805
Address 3175 KERNER BLVD STE E Voice (415) 257-1801
City SAN RAFAEL, CA Zip 94901

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection		General	
Water Supply		Contamination	X
Monitoring		Well Destruction	

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other NONE
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger ___
Cable ___ Other PNEUMATIC HAMMER

DRILLER'S LICENSE NO. C-57: 624461

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 1 in. Depth 15 ft.

ESTIMATED STARTING DATE 7-22-93
ESTIMATED COMPLETION DATE 7-22-93

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Darrell Taylor Date 7-20-93

FOR OFFICE USE

PERMIT NUMBER 93393
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
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(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 20 Jul 93
Wyman Hong

01992

Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAG000101696 Manifest Document No. 04803 6
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Jim Minor
4341 Howard St. Oakland, Ca.

4. Generator's Phone (510) 831-1384

5. Transporter 1 Company Name: Caballero Trucking
6. US EPA ID Number: CAD982412900

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
Gibson Environmental
End of Commercial Dr.
Bakersfield, Ca. 93308
10. US EPA ID Number: CAD980883177

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. RQ Hazardous Waste Solid N.O.S. ORM-E NA 9189 (D008)	002	DT	08824	T
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
James Minor 24 Hr # 510-831-1384

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR — Printed/Typed Name: Rick Wilkerson for James Minor — Signature: Rick Wilkerson — Month 08 Day 31 Year 93

TRANSPORTER — 17. Transporter 1 Acknowledgement of Receipt of Materials — Printed/Typed Name: John Cano — Signature: John — Month 08 Day 31 Year 93

TRANSPORTER — 18. Transporter 2 Acknowledgement of Receipt of Materials — Printed/Typed Name — Signature — Month Day Year

FACILITY — 19. Discrepancy Indication Space

FACILITY — 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Wilkerson — Signature: Rick Wilkerson — Month 08 Day 31 Year 93

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DTSC 8022A (7/92)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

California—Environmental Protection Agency
Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC010191696 — Manifest Document No. 01480140 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Jim Minor, 4341 Howard St., Oakland, Ca.
4. Generator's Phone: (510) 831-1384

5. Transporter 1 Company Name: Caballero Trucking — 6. US EPA ID Number: CAD982411290

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address: Gibson Environmental, End of Commercial Dr., Bakersfield, Ca. 93308 — 10. US EPA ID Number: CAD980831717

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. RQ Hazardous Waste Solid N.O.S ORM-E 9189 (D008)	002	DT	00024	T
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above — K. Handling Codes for Wastes Listed Above: 01

15. Special Handling Instructions and Additional Information

James Minor 24 HR # 510-831-1384

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Rick Wilkerson for James Minor	Rick Wilkerson for James Minor	08	31	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Kevin Stoffel	Kevin Stoffel	08	31	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Rick Wilkerson	Rick Wilkerson	08	31	93

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (7/92)
EPA 8700—22

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

GENERATOR

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC000110696 Manifest Document No. 14842

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: Jim Minor, 4341 Hayward St. Oakland, Ca.

4. Generator's Phone (510) 831-1384

5. Transporter 1 Company Name: Caballero Trucking

6. US EPA ID Number: CAD982412900

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: Gibson Environmental, End of Commercial DR, Bakersfield, Ca.

10. US EPA ID Number: CAD980888177

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. RQ Hazardous Waste Solid N.O.S. ORM-E NA 9189 (D008)	002	DT	00102	T
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above: 01

K. Handling Codes for Wastes Listed Above: D008

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: RICK WILKERSON FOR JAMES MINOR — Signature: Rick Wilkerson — Month 08 Day 31 Year 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: RICK WEAVER — Signature: Rick Weaver — Month 08 Day 31 Year 93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Rick Wilkes — Signature: Rick Wilkes — Month 08 Day 31 Year 93

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

White: TSDF SENDS THIS COPY TO DTSC WITHIN 30 DAYS.
To: P.O. Box 3000, Sacramento, CA 95812

DTSC 8022A (7/92)
EPA 8700—22

California—Environmental Protection Agency
Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC010110896 — Manifest Document No. 04803 5 — 2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Jim Minor
4341 Havard St.
Oakland, Ca.
4. Generator's Phone (510) 831-1384

A. State Manifest Document Number: 92648035
B. State Generator's ID:
C. State Transporter's ID: 500658
D. Transporter's Phone: (208) 729-0196
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID: CAD980883173
H. Facility's Phone: 805 589-3435

5. Transporter 1 Company Name: Caballero Trucking — 6. US EPA ID Number: CAD982412900
7. Transporter 2 Company Name — 8. US EPA ID Number:
9. Designated Facility Name and Site Address: Gibson Environmental, End of Commercial Dr. Bakersfield, Ca. — 10. US EPA ID Number: CAD980883173

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	Waste Number
a. RQ Hazardous Waste Solid N.O.S. ORM-E NA 9189 (D008)	001	DT	00024	T	611 D008
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above — K. Handling Codes for Wastes Listed Above: 01

15. Special Handling Instructions and Additional Information
James Minor 24 Hr # 510-831-1384

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
Rick Wilkerson for James Minor	Rick Wilkerson	08	31	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Kenneth L. Renfrow	Kenneth L. Renfrow	08	31	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
Rick Wilkerson	Rick Wilkerson	08	31	93

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (7/92)
EPA 8700—22

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To: P.O. Box 3000, Sacramento, CA 95812

California Environmental Protection Agency
Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pitch) typewriter.

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAR000160169	Manifest Document No. 418285	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: JIM MINOR
4341 HOWARD ST.
OAKLAND, CA.
4. Generator's Phone: 510 831-1384

State Manifest Document Number: 92648285
State Generator's ID:

5. Transporter 1 Company Name: CABALLERO TRUCKING
6. US EPA ID Number: CAD981241290
State Transporter's ID: 401295
Transporter's Phone: 408-709-0196

7. Transporter 2 Company Name
8. US EPA ID Number
State Transporter's ID:
Transporter's Phone:

9. Designated Facility Name and Site Address: GIBSON ENVIROMENTAL
END OF COMMERCIAL DR.
BAKERSFIELD, CA. 93308
10. US EPA ID Number: CAD980883177
State Facility's ID: CAD980883177
Facility's Phone: 800 582 3436

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	State Waste No.	Waste Code
a. RQ HAZARDOUS WASTE SOLID N.O.S. ORM-E NA 9189 (D008)	0011	DT	000024	T		611 D008
b.						
c.						
d.						

12. Additional Descriptions for Materials Listed Above
13. Special Handling Codes for Wastes Listed Above: 6

15. Special Handling Instructions and Additional Information
JAMES MINOR 24# 510-831-1384

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

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GENERATOR

Printed/Typed Name: RICK WILKERSON FOR JAMES MINOR
Signature: Rick Wilkerson for James Minor
Month Day Year: 08 31 93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVE CABALLERO
Signature: D. J Caballero
Month Day Year: 08 31 93

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name:
Signature:
Month Day Year:

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Rick Wilkerson
Signature: Rick Wilkerson
Month Day Year: 08 31 93

DO NOT WRITE BELOW THIS LINE.

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To: P.O. Box 3000, Sacramento, CA 95812

DTSC 8022A (7/92)
EPA 8700-22

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

California Environmental Protection Agency
Approved OMB No. 2050-0039 (Expires 9-30-94)
Print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAL000110169 | Manifest Document No. 41034 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
JIM MINOR
4341 HOWARD ST.
OAKLAND, CA.

4. Generator's Phone 510 831-1384

5. Transporter 1 Company Name: CABALLERO TRUCKING | 6. US EPA ID Number: CAD981241290

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address
GIBSON ENVIROMENTAL
END of COMERCIAL DR.
BAKERSFIELD CA. 93308

10. US EPA ID Number: CAL000818317

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	Waste Number
a. RQ HAZARDOUS WASTE SOLID N.O.S. ORM E NA 9189 (D008)	001	DT	00124	T	D008
b.					
c.					
d.					

12. Additional Descriptions for Materials Listed Above

13. Handling Codes for Wastes Listed Above: 01

15. Special Handling Instructions and Additional Information
JAMES MINOR 24 HR 510-831-1384

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

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Printed/Typed Name	Signature	Month	Day	Year
RICK WILKERSON FOR JAMES MINOR	Rick Wilkerson	08	31	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
DICK PAYNE	Dick Payne	08	31	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year
RICK WILKERSON	Rick Wilkerson	08	31	93

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EPA 8700-22

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To: P.O. Box 3000, Sacramento, CA 95812

GENERATOR

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Artesian Environmental Consultants

Standard Operating Procedures

SOIL SAMPLING

Hand Samples: Undisturbed soil samples are obtained using a slide hammer hand sampler with a single sampling cup at the end. The sampler holds one (1), clean, six inch long by two inch diameter brass tube. The sample is obtained by hammering the cup and tube into the undisturbed soil. The sampler is removed, opened, and the brass tube containing the sample is extracted.

Electric Drive Samples: Undisturbed soil samples are obtained using a continuous coring, 0.75 inch, lined, steel sampler. The sampler is driven into the soil using an electric rotary hammer. The sampler holds one, four foot by one inch diameter, new, plastic, sampling liner. After driving the steel sampler three to four feet, the sampler is extracted and the sampling liner containing the sample is removed.

Pneumatic Drive Samples: Undisturbed soil samples are obtained using a 1.0 inch, steel, outer drive casing, fitted with a 0.5 inch, inner soil sampler, fitted with a brass liner. The casing is pneumatically driven to the desired depth, an inner plug rod is removed and the sampler is inserted into the casing. The sample is obtained by hammering the sampling cup into the undisturbed soil. After driving the sampler six inches, it is extracted and the sampling liner containing the sample is removed.

California Split-spoon Samples: Undisturbed soil samples are obtained using a California Split-spoon sampler fitted with three six inch long by two inch diameter brass tubes. The sampler is lowered down inside a hollow stem auger after the auger plug has been removed. The sampler is then driven at least eighteen inches. The sampler is usually driven using a 140 pound hammer dropping 30 inches at each blow. After driving the sampler, the sampler is extracted and the sampling liner containing the sample is removed.

Immediately after extraction the sample tube ends are sealed with Teflon tape, plastic cap plugs, and isolated in hermetically sealed locking plastic bags.

All samples are labeled and chilled to 0° C for transportation to a California State certified hazardous materials laboratory. Chain of Custody documentation accompanies all samples to the laboratory. A copy of the Chain of Custody documentation is attached to the Certificate of Analysis.

All soil samples are collected in accordance with California Regional Water Quality Control Board (RWQCB) procedures described in the *Leaking Underground Fuel Tank (LUFT) Field Manual*, the *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites*, and local regulatory guidelines.

Standard Environmental Protection Agency (EPA), San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), and Department of Health Services (DHS) methodologies for sampling and analyses are routinely utilized.

Chain of Custody documentation accompanies all samples to the laboratory. A copy of the Chain of Custody documentation is attached to the Certificate of Analysis.

Soil cuttings and excess sampling materials are properly stored and labeled on site in DOT 17-H containers pending off site disposal.

Artesian Environmental Consultants

Standard Operating Procedures

WELL INSTALLATION

The boreholes for monitor / extraction wells are drilled using a truck-mounted, continuous flight, hollow-stem auger drill rig. The diameter of the borehole is a minimum of four inches larger than the outside diameter of the casing when installing the well screen (DWR Publication 74-81). The hollow-stem auger provides minimal interruption of drilling while permitting soil sampling at the desired intervals. All wells are installed by state-licensed drillers.

The monitor / extraction wells are cased with blank and factory-slotted, threaded, schedule 40 polyvinyl chloride (PVC). The slots are generally 0.010-inch or 0.020-inch wide by 1.5-inch long slot size, with approximately 42 slots per foot. Slot sizes are determined by previous well installations in the area or by grain size analysis. A threaded PVC cap is fastened to the bottom of the casing. Centering devices may be fastened to the casing to assure even distribution of filter material and grout within the borehole annulus. The well casing is thoroughly washed and steam-cleaned prior to installation.

After setting the casing inside the hollow stem, sand or gravel filter material is poured into the annular space to fill from the bottom of the boring to 1 foot above the slotted interval. A 1 to 2 foot thick bentonite plug is placed above the filter material to prevent the grout from infiltrating down into the filter material. Neat cement, containing about 5% bentonite, is then tremied into the annular space from the top of the bentonite plug to the surface. A lockable PVC cap is placed on each wellhead. Traffic-rated flush-mounted steel covers are installed around wellheads for wells in parking lots and driveways, while steel stove pipes are usually set over wellheads in landscaped areas.

Artesian Environmental Consultants

Standard Operating Procedures

WELL DEVELOPMENT

Wells are developed to remove residual drilling materials from the wellbore, and to improve well performance by removing any fine material in the filter pack that can pass from the formation into the well. Well development is performed in accordance with California Regional Water Quality Control Board (RWQCB) procedures described in the *Leaking Underground Fuel Tank (LUFT) Field Manual*, the *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites* , and local regulatory guidelines.

Well development techniques include pumping, bailing, surging, swabbing, jetting, flushing, and airlifting. During well development a minimum of three well volumes are evacuated from the well to permit formation water to move silts and particles into the well for removal. After allowing pH, specific conductivity, temperature and sediment content of the water to stabilize the well may be sampled. All development water and rinseate is collected for temporary storage in labeled 55 gallon, DOT 17-H containers or proper storage tanks, and is then disposed of properly depending on analytical results. To assure that cross-contamination does not occur between wells during development, all development equipment is either steam cleaned or cleaned using Alconox and rinsed twice with de-ionized water.

Artesian Environmental Consultants

Standard Operating Procedures

MONITORING WELL SAMPLING

Prior to groundwater sampling, initial water level and floating liquid hydrocarbon measurements are recorded for each well. Each well is sounded for depth to ascertain if silting has occurred and to verify the actual depth below ground surface. These measurements are used to calculate the volume for each well. At this time, all non-dedicated pumping and sampling supplies are washed with an Alconox solution, rinsed with clean water, and final rinsed with either distilled or deionized water to prevent any cross contamination from other sampling events.

Each well is purged by evacuating a minimum of three well-casing volumes of groundwater from the well. The well water may be evacuated either by bailing, or pumping. Any of the following may be used for bailing: a dedicated pvc bailer, sterile disposable polyethylene bailer, or a stainless steel bailer. For pumping the groundwater out of the well, a downhole impeller type pump (dedicated or removable with PVC tubing), a downhole dedicated bladder pump, or a surface peristaltic pump is used.

After three to four well volumes are pumped, each well is permitted to recharge to at least 80% of original capacity or for two hours; whichever occurs first. The water is then measured to verify whether the well has stabilized. Stabilization is determined by measuring the parameters of pH; temperature; and electrical conductivity. Stabilized measurements indicate that formation water has entered the well. When two subsequent measurements of these three parameters are within 10% of each other, the well is considered stabilized and is ready to be sampled.

The samples are collected using a new polyethylene bailer with a bottom siphon and nylon cord. The bailers are disposable, and therefore, never reused. The groundwater sample is visually inspected for the presence of free product in the sampling bailer. Agitation is minimized during sample retrieval to prevent aeration during the transfer from the well to the laboratory prepared sample containers. Duplicate water samples are collected from the well and siphoned into three, 40 ml, VOA, septum top vials, with additional 950 ml samples collected in an amber glass bottles or polyethylene bottles depending on the analyses to be performed. The VOA vials are filled completely, leaving no headspace, and are sealed with Teflon-lined lids. All samples are labeled, chilled to 0° C in an ice chest, and sent to a California State Certified hazardous materials testing laboratory under chain-of-custody documentation .

All groundwater samples are collected in accordance with California Regional Water Quality Control Board (RWQCB) procedures described in the *Leaking Underground Fuel Tank (LUFT) Field Manual*, the *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites*, and local regulatory guidelines.

Standard Environmental Protection Agency (EPA), San Francisco Bay Regional Water Quality Control Board (SFBRWQCB), and Department of Health Services (DHS) methodologies for sampling and analyses are routinely utilized.

Chain of Custody documentation accompanies all samples to the laboratory. A copy of the Chain of Custody documentation is attached to the Certificate of Analysis.

Monitor well purge water is properly stored and labeled on site in DOT 17-H containers pending off site disposal.

ARTESIAN ENVIRONMENTAL CONSULTANTS

Standard Operating Procedures

Continuous Coring Tool-Soil Sampling

Continuous soil cores will be obtained by Artesian Environmental Consultants (Artesian), a licensed drilling company (C-57: 624461) located in San Rafael, California. Artesian uses a continuous coring system to obtain soil cores for lithologic, hydrologic and possible chemical analyses. The Artesian drilling system uses a portable, electric roto-hammer and continuous sampling tools to collect continuous cores.

The 1-inch diameter stainless steel continuous coring tool is driven continuously for four feet using an impact rotary hammer. As the sampler is advanced, the soil samples are collected in approximately 0.75-inch diameter nonreactive PETG plastic liners. The soil sampler is then extracted from the borehole. The transparent liner containing the soil sample is removed from the sampler. Upon removal from the sampler, the entire core is visually inspected for staining and logged by the geologist or engineer. The sampler is then refitted with a new transparent sampling tube and re-inserted into the borehole. The sampler is driven an additional three feet to a total depth of seven feet below ground surface and extracted from the borehole. This procedure is repeated to the total depth of the boring. The six inches of the sample tube selected for analyses are cut off and sealed with Teflon tape and plastic end caps. Each soil sample is then hermetically sealed in a zip-lock plastic bag, labeled and stored and transported in a refrigerated environment of crushed ice under chain-of-custody procedures to a state certified laboratory.

The above mentioned procedures minimize the potential for cross-contamination and volatilization of volatile organic compounds (VOC) prior to chemical analysis. The sampler is rinsed with Alconox detergent between samples and steam-cleaned with all the other drilling