ENVIROMENTAL SITE ASSESSMENT WORKPLAN

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
DISTRICT I HOBBS
1625 N. French Dr., Hobbs, NM 88240
(505) 393-6161
FAX (505) 393-0720

Jennifer A. Salisbury
CABINET SECRETARY

June 30, 1999

RECEIVED
JUL 0 9 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Mr. Rick Massey
Chevron USA
P.O. Box 1949
Eunice, NM 88231

Re: Culp B Battery – UL I, Sec 31, Ts19s, R37E

Dear Mr. Massey:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Chevron USA's (CUSA) Work Plan dated May 27, 1999 for the above referenced site submitted by Safety & Environmental Solutions, Inc. **The plan is hereby approved and subject to the following conditions:**

1. CUSA will notify the NMOCD at least 48 hours in advance of the scheduled activities such that the NMOCD has the opportunity to witness the events and split samples.
2. All waste disposed of off-site must receive NMOCD approval prior to disposal.
3. CUSA will provide the NMOCD with a final report containing the results of the remedial actions. The report will be submitted to the NMOCD Hobbs District Office by November 1, 1999 with a copy provided to the NMOCD Santa Fe Office.
4. Pursuant to NMOCD Rule 116 CUSA shall notify both the Division's District Office and the Division's Environmental Bureau Chief upon discovery of groundwater contamination.

Please be advised that NMOCD approval of this plan does not relieve CUSA of liability should their operations fail to adequately investigate and remediate contamination that poses a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve CUSA of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you require any further information or assistance please do not hesitate to call (505) 393-6161 ext...113 or write this office.

Sincerely Yours,

Donna Williams

Donna Williams-Environmental Engineer
Cc: Chris Williams-NMOCD District I Supervisor
Bill Olson-Environmental Bureau, Santa Fe, NM

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
DISTRICT I HOBBS
PO BOX 1980, Hobbs, NM 88241
(505) 393-6161
FAX (505) 393-0720

Jennifer A. Salisbury
CABINET SECRETARY

Memo

To: Bill Olson

From: Donna williams

CC:

Date: 06/09/99

Re: C-138's

Bill,

Hi, how are things? Fine I hope. Enclosed is a copy of the Culp B Battery Work Plan. My concerns are, (endulge me ok)(let me know if I am in left field or ok), depth to ground water is only 22-27 feet. And they found contamination as far down as 16 feet, now with grd water being only 22 feet this bothers me. I feel that they should test for groundwater contamination, i.e. ground water integrity...can we make them, should we ask them to either drill a monitor well and test the water? Or can we even, is it reasonable to, have them to go down gradient and test the closet water well from the location? And why not? What is the protocol? I don't have a problem asking for a monitor well, but I don't know if it is the thing to do? Another concern is that the battery had been in use for **a long time**? They claim knowledge of process.....my question is has the oil that has been produced at this battery always came from the same area/pool/company??? Do you understand what I'm trying to ask??? You see if they claim knowledge of process on a spill that would be ok if the soil contaminated came from the same oil tested every time. I guess what I am saying is that the old contamination may have been mixed with any other companies/oil etc....would this matter? It would seem to me it would, maybe having the possiblity to have mixed product, then it would have a different chemical makeup? Am I making myself clear? I feel I am having a bit of trouble trying to put my thoughts down. Call me and we will bounce this around if you don't mind. Thanks a lot.

Donna Williams

Work Plan
Culp B Battery Site
Chevron USA

Purpose

The purpose of this work plan is to cause the closure of the abandoned tank battery site located in Unit I of Section 31, Township 19 S, Range 37 E, Lea County, New Mexico. This plan will allow closure in a manner that will protect the population, environment and groundwater of the area surrounding the subject location.

Background

In April 1999, Chevron USA secured the services of Safety and Environmental Solutions, Inc. to complete all necessary sampling and testing of the area known as the Culp B Battery site. This site is in very close proximity to a residential dwelling and the ground water in this area is approximately 22' to 27'.

Ten (10) test borings were drilled at various locations in the area. The analytical results have been previously reported to the New Mexico Oil Conservation Division in the report dated April 30, 1999, ***Chevron USA Site Assessment, Culp B Battery Site.*** The results of this assessment revealed the vertical extent of contaminated soils from 5' to 16' at various locations at the subject site.

Knowledge of process indicates that the material in this area would be exempt oil field waste.

Method

Chevron USA has determined the most appropriate course of action is to depart from normal policy and excavate and dispose of all contaminated soils at the Oil Conservation Division permitted facility owned by Sundance Services. This decision has been reached after careful consideration of the close proximity of this site to a residential dwelling, the shallow depth to ground water and the number of pipelines close to and bisecting the subject site.

Chevron USA proposes to remove the source of contamination, soil in excess of 100 ppm TPH from the subject site and transport the excavated material to the Sundance Services disposal facility. The excavation will be back filled with clean soil (under 100 ppm) and restored back to the original grade.

Source Removal

This excavation will remove approximately 5000 cubic yards of source contamination from the area.

Additional testing (TPH and BTEX) will be performed on the bottom and sides of the spill area after excavation in order to document that all of the contaminated soils have been removed from the site.

Chevron USA
Site Assessment
Culp B Battery Site

Section 31 Township 19 S Range 37 E
Lea County, New Mexico

April 30, 1999

Safety & Environmental Solutions, Inc.
703 E. Clinton Suite 103
Hobbs, New Mexico 88240
(505) 397-0510

TABLE OF CONTENTS

I. Background

Safety & Environmental Solutions, Inc. (SESI) was engaged on April 27, 1999 to perform a site assessment of the Chevron Culp B Tank Battery Site located in Unit I of Section 31 Township 19S, Range 37E, Lea County, New Mexico (Figure 1). The site consists of an approximately 25,867 square foot area enclosed with a barbed wire fence. This area was used as a site for the storage of fluids produced by wells of the Culp B lease by Chevron USA (Figure 2). In addition to the enclosed area, a vent line for the batteries ran east of the site approximately 60'. An area of mildly stained soils at this location was investigated. The bare area immediately south of the enclosed area was also investigated for possible contamination.

II. Work Performed

SESI performed the drilling and sampling services for this project. Cardinal Laboratories of Hobbs, New Mexico was contracted to perform the laboratory analytical testing required for this project. SESI used a hollow stem auger rig for the drilling and a thin wall sampling tube for the extraction of the samples. Ten (10) test borings were drilled throughout the subject site to depths that represent the vertical extent of contamination. The vertical extent of the contamination was considered to be 100 ppm TPH. The regulatory limits found in **"Unlined Surface Impoundment Closure Guidelines"** *New Mexico Oil Conservation Division* - February 1993 address Total Petroleum Hydrocarbons (TPH), Benzene, Ethyl Benzene, Toluene and Total Xylenes (BTEX).

SESI sampled the test borings at intervals of five (5) feet and performed field analytical tests to determine the extent of contamination of each sample. The field analytical tests performed were Total Petroleum Hydrocarbons (TPH) (EPA Method 418.1) using a General Analysis Corp. Mega TPH, Total Petroleum Hydrocarbon Analyzer Serial # 01196. Soil sampling was performed on soils from each test boring using SOPs found in **Environmental Protection Agency, 1984, Characterization of Hazardous Waste Site - A Methods Manual: Vol II.** The samples extracted from the bottom of each test boring were preserved on ice and delivered along with Chain of Custody to Cardinal Laboratories for testing. The samples were analyzed for Total Petroleum Hydrocarbons (EPA TRPHC SW-846 8015M) and BTEX (EPA Method SW-846-8260) and Chlorides (EPA Method 600/4-79-020 325.3). (Appendix A)

The test borings were plugged with cuttings. (Appendix B)

III. Vertical and Horizontal Extent Investigation

A summary of each test boring is presented in the following tables with the field analysis in black print and the laboratory analysis in blue print:

Test Boring # 1

The first test boring was drilled on April 27, 1999 from 8:30 A.M. to 9:30 A.M. approximately 27.5 ' from the south fence and 33.5' from the east fence of the enclosed area. The boring was drilled to a depth of 10' and sampled at 5' to 10' depths.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	240					
2 10'	181	<0.002	<0.002	<0.002	<0.006	128

Test Boring # 2

This test boring was drilled on April 27, 1999 from 10:00 A.M. to 11:30 A.M. approximately 23.3' from the north fence and 34.1' from the east fence of the enclosed area. This boring was drilled to a depth of 5' and sampled at 5'.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	146	0.003	0.003	0.003	0.008	112

Test Boring # 3

This test boring was drilled on April 27, 1999 from 1:00 P.M. to 2:00 P.M. approximately 49' from the north fence and 118.7' from the east fence of the enclosed area. This boring was drilled to a depth of 5' and sampled at 5'.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	45.9	<0.002	<0.002	<0.002	<0.006	175

Test Boring # 4

This boring was drilled on April 27, 1999 from 2:15 P.M. to 3:30 P.M. approximately 49.7' from the north fence and 15.45' from the west fence of the enclosed area. This boring was drilled to a depth of 5' and a sample was taken at 5'.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	13.5	<0.002	<0.002	<0.002	<0.006	96

Test Boring # 5

This boring was drilled on April 27, 1999 from 3:40 PM. to 4:15 PM. approximately 49.4' from the north fence and 56.65' from the west fence of the enclosed area. This boring was drilled to a depth of 5' and sampled from at 5'. This boring exhibited none of the soil characteristics or the previous borings and only sand was encountered . SESI determined that the site of this boring is in a buried pipeline right-of-way and it was decided not to proceed any deeper for fear of rupturing a pipeline. Sample not sent to laboratory.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	930					

Test Boring # 6

This boring was drilled on April 28, 1999 from 9:05 A.M. to 10:15 AM. approximately 49.4' from the north fence and 50.15' from the west fence of the enclosed area. This boring was drilled to a depth of 10' and samples taken at 5' and 10'.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	1434					
2 10'	<10	<0.002	<0.002	<0.002	<0.006	32

Test Boring # 7

This boring was drilled on April 28, 1999 from 10:30 AM. To 2:15 PM. approximately 15.9' from the south fence and 36.5' form the west fence of the enclosed area. This boring was drilled to a depth of15' and samples taken at 5', 10' and 15'. SESI was unable to extract enough material to send to laboratory.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	1433					
2 10'	261					
3 15'	102					

Test Boring # 8

This test boring was drilled on April 30, 1999 from 10:00 AM. to 12:00 PM. approximately 33.75' south of the south fence outside the enclosed area. This hole was drilled to a depth of 16' and sampled at 5', 10, & 16'. SESI was not able to extract enough material from the hard rock to send to the laboratory, however, a field sample was taken from the sample tube end.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	2223					
2 10'	452					
3 16'	43					

Test Boring # 9

This test boring was drilled on April 30, 1999 from 12:15 PM. to 1:45 PM. approximately 96.28" south of the south fence outside the enclosed area. This hole was drilled to a depth of 5' and sampled at 5'.

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	<10	<0.002	<0.002	<0.002	<0.006	48

Test Hole # 10

This test boring was drilled on April 28, 1999 from 2:30 PM. to 4:30 PM. and April 30, 1999 from 8:00 AM to 9:15 AM approximately 53.9' due east of the east fence outside the enclosed area. This boring was to investigate the vent line area. This boring was drilled to a depth of 5" and sample taken at 5'

ID/ Depth	TPH	Benzene	Toluene	Ethyl Benzene	Xylenes	Cl
1 5'	<10	<0.002	<0.002	<0.002	<0.006	80

IV. Summary

This site assessment has revealed the vertical extent of contaminated soils ranges from 5' to 16' at the subject site. There was no indication that any contamination has migrated into the ground water in this area and no tests were conducted of the ground water.

V. Figures and Appendices

Figures:

Figure 1 - Vicinity Map
Figure 2 - Site Plan

Appendices:

Appendix A - Analytical Results
Appendix B - Logs of Boring

Figure 1
Vicinity Map

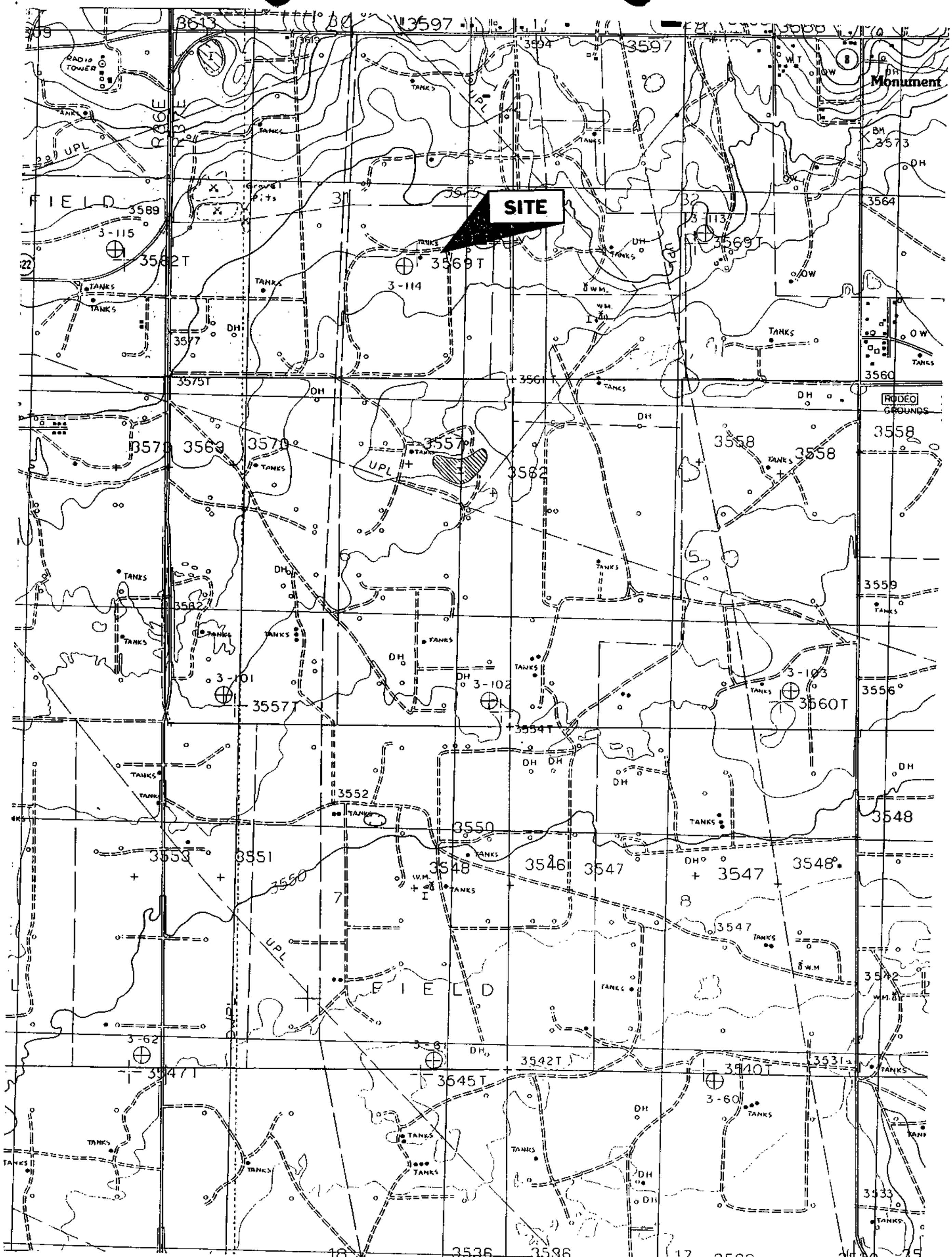
SITE
Monument
RADIO TOWER
Gravel Pits
FIELD
FIELD
RODEO GROUNDS
UPL
TANKS
DH
OW
W.M.
3-115
3-114
3-113
3-101
3-102
3-103
3-62
3-61
3-60
3582T
3569T
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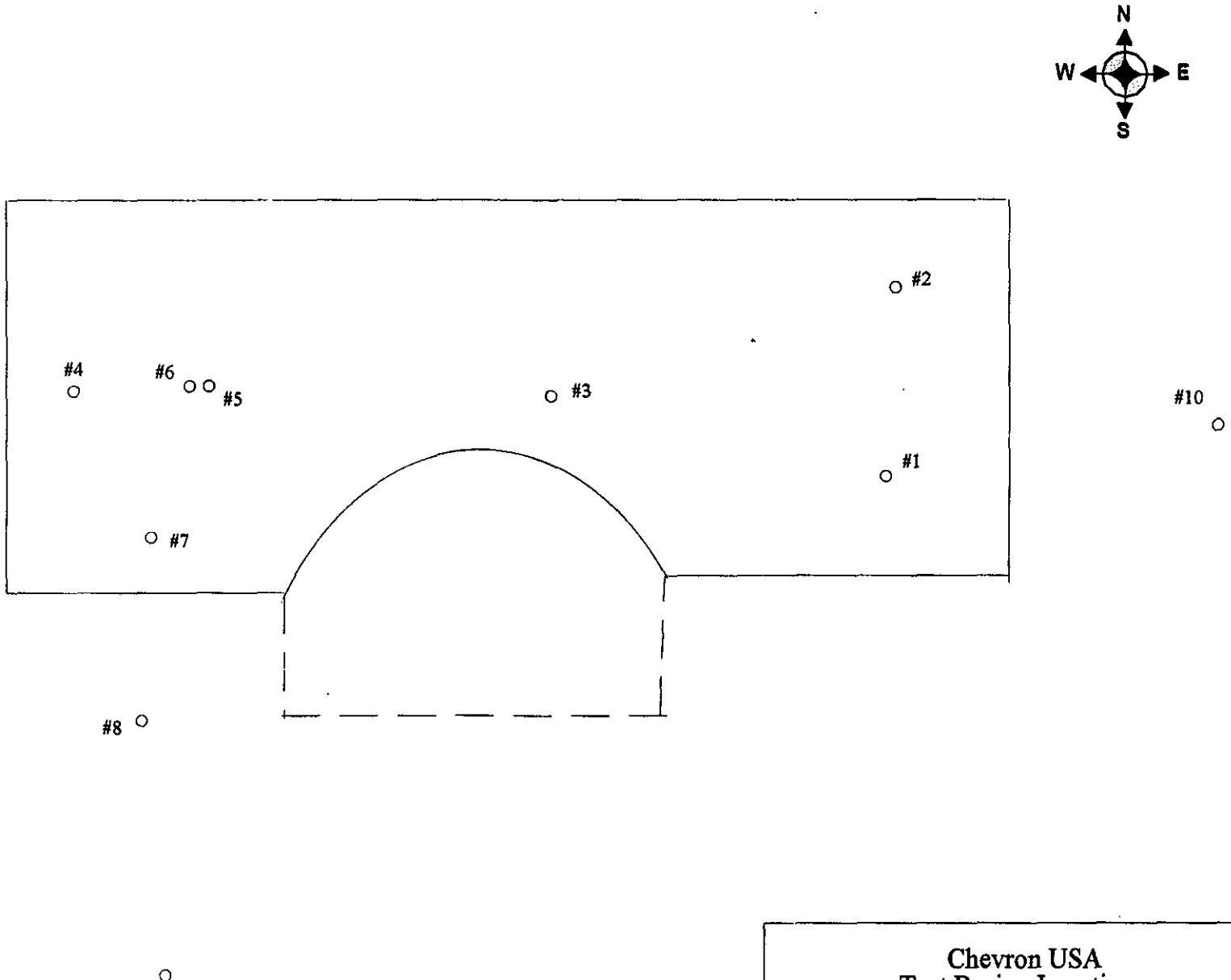
Figure 2
Site Plan



Scale 1" = 40'

Chevron USA
Test Boring Locations
Culp B Battery Site
Unit I Section 31, T 19s, R 37E
May 7, 1999

Appendix A
Analytical Results

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 EAST CLINTON, SUITE 103
HOBBS, NM 88240
505-393-4388

Receiving Date: '05/04/99
Reporting Date: 05/05/99
Project Number: NOT GIVEN
Project Name: CULP B
Project Location: NOT GIVEN

Analysis Date: 05/05/99
Sampling Date: 05/04/99
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP

LAB NUMBER	SAMPLE ID	Cl^- (mg/L)
H4135-1	BH #1 Bottom	128
H4135-2	BH #2 Bottom	112
H4135-3	BH #3 Bottom	175
H4135-4	BH #4 Bottom	96
Quality Control		129
True Value QC		132
% Accuracy		98
Relative Percent Difference		2.3

METHOD: EPA 600/4-79-020,	325.3

Chemist

05/12/99
Date

H4135B.XLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 05/04/99
Reporting Date: 05/05/99
Project Owner: NOT GIVEN
Project Name: CULP B
Project Location: NOT GIVEN

Sampling Date: 05/04/99
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

LAB NO.	SAMPLE ID	TPH (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE:		05/05/99	05/05/99	05/05/99	05/05/99	05/05/99
H4135-1	BH #1 BOTTOM	181	<0.002	<0.002	<0.002	<0.006
H4135-2	BH #2 BOTTOM	146	0.003	0.003	0.003	0.008
H4135-3	BH #3 BOTTOM	45.9	<0.002	<0.002	<0.002	<0.006
H4135-4	BH #4 BOTTOM	13.5	<0.002	<0.002	<0.002	<0.006
Quality Control		3070	0.093	0.100	0.100	0.307
True Value QC		3000	0.100	0.100	0.100	0.300
% Recovery		102	92.6	99.6	99.7	102
Relative Percent Difference		2.2	3.8	7.7	5.6	7.5

METHODS: TRPHC - EPA SW-846 8015 M; BTEX - EPA SW-846 8260

Chemist

5/5/99
Date

H4135A.XLS

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name:	SEST	BILL TO PO #:	
Project Manager:	Bob Allen	Company:	
Address:	703 E Clinton Suite 103	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	397-0510	City:	
Fax #:		State: Zip:	
Project #:	Project Owner:	Phone #:	
Project Name:	Culp B	Fax #:	
Project Location:			

ANALYSIS REQUEST

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING DATE	TIME	BTEX	TPH 8015	Cl- TCLP
H4135-1	BH#1 Bottom	G	1			✓					✓		5-4-99	9:50	✓	✓	✓
H4135-2	BH#2 Bottom	G	1			✓					✓		5-4-99	11:00	✓	✓	✓
H4135-3	BH#3 Bottom	G	1			✓					✓		5-4-99	1:00	✓	✓	✓
H4135-4	BH#4 Bottom	G	1			✓					✓		5-4-99	2:26	✓	✓	✓

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts over Net 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished: Bob Allen	Date: 5-4-99 Time: 4:37	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: Time:	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: BOB ALLEN
703 E. CLINTON, SUITE 103
HOBBS, NM 88240
FAX TO:

Receiving Date: 05/07/99
Reporting Date: 05/11/99
Project Number: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/07/99
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	TPH (mg/Kg)	Cl* (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		05/10/99	05/10/99	05/10/99	05/10/99	05/10/99	05/10/99
H4143-1	BH #6	<10	32	<0.002	<0.002	<0.002	<0.006
H4143-2	BH #9	<10	48	<0.002	<0.002	<0.002	<0.006
H4143-3	BH #10	<10	80	<0.002	<0.002	<0.002	<0.006
Quality Control		3090	129	0.090	0.096	0.093	0.279
True Value QC		3000	132	0.100	0.100	0.100	0.300
% Recovery		103	98	90.0	95.8	92.7	92.8
Relative Percent Difference		4.5	2.3	2.9	4.5	1.3	0.3

METHODS: TRPHC-EPA SW-846 8015 M;Cl-Std. Methods 4500-ClB; BTEX-EPA SW-846-8020
*Analyses performed on 1:4 w:v aqueous extracts.

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

5/11/99
Date

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page____ of____

Company Name: SESI		BILL TO	PO #:
Project Manager: BOB Allen		Company:	
Address: 703 E. Clinton Ste 103		Attn: Same	
City: HOBBS State: NM Zip: 88240		Address:	
Phone #:		City:	
Fax #:		State: Zip:	
Project #: Project Owner:		Phone #:	
Project Name:		Fax #:	
Project Location:			

FOR LAB USE ONLY				MATRIX						PRES.			SAMPLING		ANALYSIS REQUEST															
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID:	ICE / COOL	OTHER :	DATE	TIME	8015	Cl-	BTEX													
H4143-1	BH #6		1			✓							5/7/99		✓	✓	✓													
-2	BH #9		1			✓									✓	✓	✓													
-3	BH #10		1			✓									✓	✓	✓													

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date: 5-7-99	Received By: (Lab Staff)	REMARKS:
	Time: 3:50		
Delivered By: (Circle One)	Sample Condition Cool / Intact	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	☐ Yes ☐ Yes ☐ No ☐ No		

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

Appendix B
Logs of Borings

Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

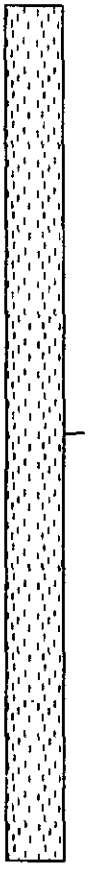
LOG OF BORING Culp TB # 1

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/4/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: B. Allen
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/Kg)
0	SW		SAND, well graded,brown								
	GW		GRAVEL, well graded, white								
5	SW		SAND, well graded,brown	1	Field Test	240	NT	NT	NT	NT	NT
	CL		CLAY, reddish brown								
	CAL		CALICHE, pinkish white								
10	SW		SAND, well graded, brown, dry	2	H4135-1	181	<0.002	<0.002	<0.002	<0.006	128
15											

Well: TB # 1
Elev.: 0



05-17-1999 F:\COMPAN~1\CHEVRON\CULPB~1\CULPTB~1.BOR

Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

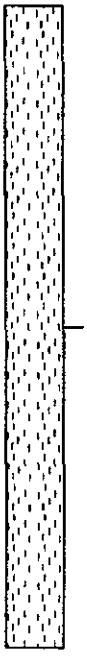
LOG OF BORING Culp TB # 2

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/4/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: B. Allen
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/Kg)
0	SW		SAND, well graded,brown								
	CAL		CALICHE, pinkish white								
5	SW		SAND, well graded, red/brown	1	H4135-2	146	0.003	0.003	0.003	0.008	112
10											

Well: TB # 2
Elev.: 0



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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

LOG OF BORING Culp TB # 3

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/4/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: B. Allen
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Well: TB # 3
Elev.: 0

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SW		SAND, well graded,brown								
	CAL		CALICHE, pinkish white								
5	SW		SAND, well graded, red/brown	1	H4135-3	45.9	<0.002	<0.002	<0.002	<0.006	175
10											

Cuttings

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

LOG OF BORING Culp TB # 4

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/4/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: B. Allen
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Well: TB # 4
Elev.: 0

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SW		SAND, well graded, tan								
	CAL		CALICHE, pinkish white								
5	SW		SAND, well graded, brown	1	H4135-4	13.5	<0.002	<0.002	<0.002	<0.006	96
10											

Cuttings

For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

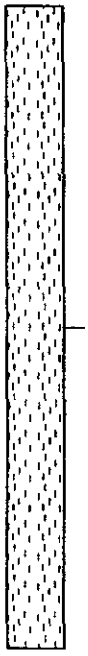
LOG OF BORING Culp TB # 5

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/4/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: B. Allen
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SW		SAND, well graded, tan								
5				1	Field Test	930	NT	NT	NT	NT	NT
10											

Well: TB # 5
Elev.: 0



For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

LOG OF BORING Culp TB # 6

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/5/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: D. Whatley
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SW		SAND, well graded, tan								
	CL		CLAY, reddish brown								
	SW		SAND, Brown								
5	SW			1	Field Test	1434	NT	NT	NT	NT	NT
	GW		GRAVEL, white								
10				2	H4143-1	<10	<0.002	<0.002	<0.002	<0.006	32
15											

Well: TB # 6
Elev.: 0

Cuttings

For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

LOG OF BORING Culp TB # 7

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/5/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: D. Whatley
Hole Diameter	: 7.0 In.		
Sampling Method	: Thin Wall Sampling Tube		

Well: TB # 7
Elev.: 0

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SW		SAND, well graded, tan								
	GW		GRAVEL, well graded								
5	CAL		CALICHE, pinkish white	1	Field Test	1433	NT	NT	NT	NT	NT
	SW		SAND, well graded, brown								
10				2	Field Test	261	NT	NT	NT	NT	NT
	CAL		CALICHE, pinkish white								
15				3	Field Test	102	NT	NT	NT	NT	NT
20											

Cuttings

For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

LOG OF BORING Culp TB # 8

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/7/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: D. Whatley
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Well: TB # 8
Elev.: 0

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SM		SILTY SAND, brown								
	CAL		CALICHE, white								
	SW		SAND, well graded, brown	1	Field Test	2223	NT	NT	NT	NT	NT
5											
10				2	Field Test	452	NT	NT	NT	NT	NT
	GW		GRAVEL, well graded, brown								
	BCH		BEDDED CHERT, light brown	3	Field Test	49	NT	NT	NT	NT	NT
15											
20											

Cuttings

For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

LOG OF BORING Culp TB # 9

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/7/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: D. Whatley
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SM		SILTY SAND, brown								
	CAL		CALICHE, white								
5				1	H4143-2	<10	<0.002	<0.002	<0.002	<0.006	48
10											

Well: TB # 9
Elev.: 0

Cuttings

For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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Safety & Environmental Solutions, Inc.
Hobbs, New Mexico 88240

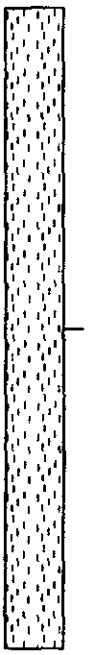
LOG OF BORING Culp TB # 10

Chevron USA
Site Assessment
Culp B Battery
Section 31 T 19 S, R 37 E, Lea County , NM

Date Completed	: 5/7/99	Company Rep.	: R. Massey
Drilling Method	: H.S.A.	Boring Location	:
Driller	: D. Whatley	Logged By	: D. Whatley
Hole Diameter	: 7.0 in.		
Sampling Method	: Thin Wall Sampling Tube		

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Samples	Lab No.	TPH (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl Benzene (mg/Kg)	Total Xylenes (mg/Kg)	Chlorides (mg/L)
0	SM		SILTY SAND, brown								
	CAL		CALICHE, pinkish white								
5				1	H4143-2	<10	<0.002	<0.002	<0.002	<0.006	48
10											

Well: TB # 10
Elev.: 0



For this demonstration version, the number of contacts, samples, and general parameter data points are limited to 5, 5, and 10. The full version does not limit the data this way.

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