

Denny B. Foust
(505) 325-5667
DEPUTY OIL & GAS INSPECTOR



LAB: (505) 325-1556

FEB 06 1998

Approved

October 7, 1997

Mr. Bill Olson
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Project # 4-1317

5-26-97 NW-cfw
RE: Resubmittal of Pit Closure report for D. J. Simmons', Simmons E-1A

On behalf of D. J. Simmons, On Site Technologies Limited Partnership, is submitting the enclosed "Pit Remediation and Closure" (PRC) forms for Simmons E-1A dehydrator pit. The PRC has been revised following re-sampling and analytical testing of the former pits areas and remediated soils. The re-sampling and testing was done in response to your letter denying closure approval dated 5/19/97, and per discussions with you. Included with this report are laboratory results, Chains of Custody and QA/QC documentation.

Thank you for your time and consideration.

Respectfully submitted:

Larry Trujillo
Environmental Technician
On Site Technologies Limited Partnership

Enclosure: Pit Closure and Remediation Report

Summary
Risk Evaluation
Lab results
Chain of Custody
QA/QC

CC: Denny Foust
John Byrom
Bill Leise

District I

P.O. Box 1980, Hobbs, NM

District II

P.O. Drawer DD, Artesia, NM 88211

District III

1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico

Energy, Minerals and Natural Resources
Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY
TO
APPROPRIATE

DISTRICT
OFFICE
AND 1 COPY TO
SANTA FE
OFFICE

(Revised
3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: D. J. Simmons Telephone: 505-326-3753

Address: 3005 Northridge Drive, Suite L, Farmington, NM 87401

Facility Or: Simmons E-1A

Well Name

Location: Unit or Qtr/Qtr J Sec 26 T29 R9W County San Juan

Pit Type: Separator Dehydrator X Other

Land Type: BLM X, State , Fee , Other

Pit Location: Pit dimensions: length 25', width 25', depth 4'
(Attach diagram)

Reference: wellhead X, other

Footage from reference: 75'

Direction from reference: 67 Degrees X East North ,
of
West South X

Depth To Ground Water:

(Vertical distance from
contaminants to seasonal
high water elevation of
ground water)

Less than 50 feet	(20 points)
50 feet to 99 feet	(10 points)
Greater than 100 feet	(0 points)
<u>0</u>	

Wellhead Protection Area:

(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

Yes	(20 points)
No	(0 points)

0

Distance To Surface Water:

(Horizontal distance to perennial
lakes, ponds, rivers, streams, creeks,
irrigation canals and ditches)

Less than 200 feet	(20 points)
200 feet to 1000 feet	(10 points)
Greater than 1000 feet	(0 points)
<u>0</u>	

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: 12- 9 - 1996 Date Completed: 12-10-96

Remediation Method: Excavation X Approx. cubic yards 700 ,
(Check all appropriate sections) Landfarmed _____ Insitu Bioremediation _____
Other _____

Remediation Location: Onsite X Offsite _____
(ie. landfarmed onsite,
name and location of

offsite facility)

General Description Of Remedial Action: Pit was excavated to bedrock (sandstone) approximately 18' to 20' and laterally approximately 38' by 25'. A five point sample composite was taken from sidewalls and bottom of excavation. Contaminated soils were fluffed and blended with uncontaminated soils and returned to excavation. A ten point composite sample was taken of the treated soils for BTEX and TPH. The five point composite sample's TPH was 2999.0 ppm and BTEX was 199.0 ppm. The 10 point composite sample's TPH was 935.0 ppm and BTEX was 18.0 ppm. Pit was re-sampled on 6/6/97 to determine vertical extent and on 8/12/97 to sample remediated soils. See attached summary for re-sample results

Ground Water Encountered: No X Yes _____ Depth _____

Final Pit:

Closure Sampling:
(if multiple samples,
attach sample results
and diagram of sample
locations and depths)

Sample location: center and sidewalls of pit
at bedrock

Sample depth: Approx. 18'

Sample date: 12-10-96 time 1400 hours

Sample Results:

Benzene (ppm) 5.6

Total BTEX (ppm) 199.9

Field headspace (ppm) _____

TPH 2999.2

* re-sample data on summary sheet attached

Ground Water Sample: Yes _____ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE
BEST OF MY KNOWLEDGE AND BELIEF

DATE 10/7/97

SIGNATURE

PRINTED NAME
AND TITLE

John A. Byrom
OPERATIONS MGR.

Summary of Re-Sampling

On June 6, 1997 Larry Trujillo of On Site Technologies sampled Simmons E-1A using a hand auger. Sample was taken from the approximate center of the former pit. Grab samples were taken at 6', 12' and 18' for PID reading (see table). Sandstone was encountered at 18', sampler was unable to auger through the sandstone. A grab sample was taken at this depth for TPH analysis per EPA Method 8015. As per conversation with Bill Olson of NMOCD only a sample of the center and below the bottom of the pit was required to determine vertical extent of contamination.

SUMMARY TABLE: June 6, 1997 Assessment

Sample Depth	Time	PID Units	TPH (ppm)
6'	1307	2132	
12'	1308	1991	
18'	1310	2359	1462

On August 12, 1997 Larry Trujillo re-sampled D. J. Simmons E-1A. The purpose of the re-sampling was to sample remediated soil that were placed back into pit excavation on December 10, 1996. Using a hand auger grab samples were taken at 6, 12 and 15 feet. PID reading are summarized on table below. Samples were split placed in clean jar with Teflon® closure, placed on ice and transported to laboratory for analysis. All samples were analyzed for TPH per EPA Method 8015 (mod) and BTEX per EPA Method 8020.

SUMMARY TABLE: August 12 1997 Sampling Event

Sample	Time	PID Units	TPH (ppm)	Benzene (ppm)	Total BTEX (ppm)
6'	0957	410.0	697	ND	9.02
12'	1026	451.0	751	ND	15.2
15'	1053	344.0	868	ND	14.4

all limits in Parts Per Million

SITE SPECIFIC RISK EVALUATION SUMMARY

Well Name:

Simmons E - 1A

Well Site Location:

Unit J, Sec 26, T29N, R9W

Pit Type:

Dehydrator Pit

Producing Formation:

San Juan Basin

Conclusion/ Recommendation:

Based upon the information given and risk assessment, we conclude that the residual hydrocarbon contamination soil resulting from the subject earthen pit is very limited and the subsurface conditions (i.e. bedrock) are enough of a barrier to preclude impact to ground water. Refer to NMOCD's policy for pit closures with shallow bedrock and no ground water impact. Simmons requests pit closure approval on this site.

Pit Assessment:

Ranking Score:

0 - 9

Horizontal Distance to Surface Water:

>1000 ft.

Ground Water Depth:

>100 ft.

Lateral Extent of Contamination:

confined to immediate pit area (25'X25')

Vertical Extent of Contamination:

18' below bottom of pit (bedrock)

Land Use:

BLM rangeland and grazing

Ground Water Impact:

None Identified as of (11/11/96)

Surface Water Impact:

None Identified as of (11/11/96). Topographic information does not indicate probability of off site lateral fluid migration near earthen pit.

Field and Lab Soil Sample Results:

Sample Location	TPH (ppm)	PID (units)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylene (ppm)
center of pit and each side wall (12/10/96)	324	2.35				
S-1 @ 18' (6/6/97)	1462	2359				
4-1317 -1 @ 6' (8/12/97)	697	410.0	ND	0.568	1.6	6.85
4-1317 -2 @ 12' (8/12/97)	751	451.0	ND	0.443	1.65	13.1
4-1317 -3 @ 15' (8/12/97)	868	344.0	ND	0.51	1.74	12.2

Notes:

TPH: Total Petroleum Hydrocarbons per EPA Method 418.1 or EPA Method 8015m.

PID: Results of field headspace testing.

BTEX: Volatile Organic Hydrocarbons per EPA Method 8020.

ppm: Parts per Million, equivalent to mg/Kg.

Remediation Summary:

Pit excavated to approximately 18' to bedrock. Excavated soil was fluffed and blended with clean soil and placed back into pit. A five point composite sample was taken and analyzed. On June 6, 1997 pit was re-sample and bedrock was encountered at approximately 18'. On August 12, 1997 remediated soil was sampled at 6', 12, and 15'.

Submitted by:

Larry Trujillo

Environmental Technician

On Site Technologies, Ltd.

ON SITE

OFF: (505) 325-5667

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

ANALYTICAL REPORT

Attn: Larry Trujillo
Company: On Site Technologies, Ltd. c/o D.J. Simmons
Address: 612 E. Murray Drive
City, State: Farmington, NM 87401

Date: 13-Jun-97
COC No.: 6412
Sample No.: 14878
Job No.: 4-1317

Project Name: D.J. Simmons - Simmons E-1A

Project Location: S-1 @ 18ft.

Sampled by: LT Date: 6-Jun-97 Time: 13:10

Analyzed by: DC/HR GRO Date: 10-Jun-97

Sample Matrix: Soil DRO Date: 11-Jun-97

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Gasoline Range Organics (C5 - C9)	348	mg/kg	1	mg/kg
Diesel Range Organics (C10 - C28)	1078	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Gasoline Range (C5 - C9)	ND	ppb	1,351	1,230	9.4	15%
Diesel Range (C10 - C28)	ND	ppm	200	178	11.7	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Gasoline Range (C5-C9)	85	84	(80-120)	1	20%
Diesel Range (C10-C28)	88	90	(84-118)	2	20%

Method: SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:

Date:

CHAIN OF CUSTODY RECORD

6412

Page 1 of 1Date: 6/6/97

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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ON SITE

OFF: (505) 325-5667

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

ANALYTICAL REPORT

Attn: Larry Trujillo
Company: On Site Technologies, Ltd. c/o D.J. Simmons
Address: 612 E. Murray Drive
City, State: Farmington, NM 87401

Date: 27-Aug-97
COC No.: 6700
Sample No.: 15744
Job No.: 4-1317

Project Name: D.J. Simmons - E1A

Project Location: 4-1317-1

Sampled by: LT

Date: 12-Aug-97 Time: 9:57

Analyzed by: DC/HR

GRO Date: 21-Aug-97

Sample Matrix: Soil

DRO Date: 25-Aug-97

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Gasoline Range Organics (C5 - C9)	168	mg/kg	13	mg/kg
Diesel Range Organics (C10 - C28)	529	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD


Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Gasoline Range (C5 - C9)	ND	ppb	1,801	1,950	7.9	15%
Diesel Range (C10 - C28)	ND	ppm	200	206	2.8	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Gasoline Range (C5-C9)	71	64	(80-120)	10	20%
Diesel Range (C10-C28)	76	74	(84-118)	2	20%

Method: SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: 
Date: 8/27/97

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Larry Trujillo*
Company: *On Site Technologies, Ltd. c/o D.J. Simmons*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *21-Aug-97*
COC No.: *6700*
Sample No.: *15744*
Job No.: *4-1317*

Project Name: *D.J. Simmons - E1A*
Project Location: *4-1317-1*
Sampled by: *LT*
Analyzed by: *HR*
Sample Matrix: *Soil*

Date: *12-Aug-97* Time: *9:57*
Date: *20-Aug-97*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	50	ug/kg
<i>Toluene</i>	568	ug/kg	50	ug/kg
<i>Ethylbenzene</i>	1609	ug/kg	50	ug/kg
<i>m,p-Xylene</i>	6326	ug/kg	50	ug/kg
<i>o-Xylene</i>	520	ug/kg	50	ug/kg
	<i>TOTAL</i>	9023	ug/kg	

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
Date: *8/21/97*

ON SITE

OFF: (505) 325-5667

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

ANALYTICAL REPORT

Attn: *Larry Trujillo*
Company: *On Site Technologies, Ltd. c/o D.J. Simmons*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *27-Aug-97*
COC No.: *6700*
Sample No.: *15745*
Job No.: *4-1317*

Project Name: *D.J. Simmons - E1A*

Project Location: *4-1317-2*

Sampled by: *LT* Date: *12-Aug-97* Time: *10:26*

Analyzed by: *DC/HR* GRO Date: *21-Aug-97*

Sample Matrix: *Soil* DRO Date: *25-Aug-97*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>152</i>	<i>mg/kg</i>	<i>13</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>599</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Gasoline Range (C5 - C9)</i>	<i>ND</i>	<i>ppb</i>	<i>1,801</i>	<i>1,950</i>	<i>7.9</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>206</i>	<i>2.8</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Gasoline Range (C5-C9)</i>	<i>71</i>	<i>64</i>	<i>(80-120)</i>	<i>10</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>76</i>	<i>74</i>	<i>(84-118)</i>	<i>2</i>	<i>20%</i>

Method: *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*
Date: *8/27/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

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LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Larry Trujillo*
Company: *On Site Technologies, Ltd. c/o D.J. Simmons*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *21-Aug-97*
COC No.: *6700*
Sample No.: *15745*
Job No.: *4-1317*

Project Name: *D.J. Simmons - E1A*
Project Location: *4-1317-2*
Sampled by: *LT*
Analyzed by: *HR*
Sample Matrix: *Soil*

Date: *12-Aug-97* Time: *10:26*
Date: *20-Aug-97*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	50	ug/kg
<i>Toluene</i>	443	ug/kg	50	ug/kg
<i>Ethylbenzene</i>	1652	ug/kg	50	ug/kg
<i>m,p-Xylene</i>	12592	ug/kg	50	ug/kg
<i>o-Xylene</i>	516	ug/kg	50	ug/kg
	<i>TOTAL</i>	15204	ug/kg	

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved by:

Date: *8/21/97*

ON SITE

OFF: (505) 325-5667

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Larry Trujillo*
Company: *On Site Technologies, Ltd. c/o D.J. Simmons*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *27-Aug-97*
COC No.: *6700*
Sample No.: *15746*
Job No.: *4-1317*

Project Name: *D.J. Simmons - E1A*

Project Location: *4-1317-3*

Sampled by: *LT* Date: *12-Aug-97* Time: *10:53*

Analyzed by: *DC/HR* GRO Date: *21-Aug-97*

Sample Matrix: *Soil* DRO Date: *25-Aug-97*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>122</i>	<i>mg/kg</i>	<i>25</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>746</i>	<i>mg/kg</i>	<i>5</i>	<i>mg/kg</i>

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
<i>Gasoline Range (C5 - C9)</i>	<i>ND</i>	<i>ppb</i>	<i>1,801</i>	<i>1,950</i>	<i>7.9</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i>ND</i>	<i>ppm</i>	<i>200</i>	<i>206</i>	<i>2.8</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
<i>Gasoline Range (C5-C9)</i>	<i>71</i>	<i>64</i>	<i>(80-120)</i>	<i>10</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>76</i>	<i>74</i>	<i>(84-118)</i>	<i>2</i>	<i>20%</i>

Method: *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*
Date: *8/27/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Larry Trujillo*
Company: *On Site Technologies, Ltd. c/o D.J. Simmons*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *22-Aug-97*
COC No.: *6700*
Sample No.: *15746*
Job No.: *2-1000*

Project Name: *D.J. Simmons - E1A*

Project Location: *4-1317-3*

Sampled by: *LT* Date: *12-Aug-97* Time: *10:53*

Analyzed by: *DC* Date: *21-Aug-97*

Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
<i>Benzene</i>	ND	ug/kg	100	ug/kg
<i>Toluene</i>	510	ug/kg	100	ug/kg
<i>Ethylbenzene</i>	1743	ug/kg	100	ug/kg
<i>m,p-Xylene</i>	11662	ug/kg	100	ug/kg
<i>o-Xylene</i>	557	ug/kg	100	ug/kg
	<i>TOTAL</i>	14472	ug/kg	

ND - Not Detected at Limit of Quantitation

Method - *SW-846 EPA Method 8020A Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
Date: *8/22/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

LAB: (505) 325-1556

TECHNOLOGIES, LTD.

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 20-Aug-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>
<i>Average Amount of All Analytes In Blank</i>	< 1.0	ppb

Calibration Check

<i>Parameter</i>	<i>Units of Measure</i>	<i>True Value</i>	<i>Analyzed Value</i>	<i>RPD</i>	<i>Limit</i>
<i>Benzene</i>	ppb	60.0	60.3	0	15%
<i>Toluene</i>	ppb	60.0	62.0	3	15%
<i>Ethylbenzene</i>	ppb	60.0	61.5	2	15%
<i>m,p-Xylene</i>	ppb	120.0	121.2	1	15%
<i>o-Xylene</i>	ppb	60.0	60.7	1	15%

Matrix Spike

<i>Parameter</i>	<i>1 - Percent Recovered</i>	<i>2 - Percent Recovered</i>	<i>Limit</i>	<i>RPD</i>	<i>RPD Limit</i>
<i>Benzene</i>	93	78	(39-150)	17	20%
<i>Toluene</i>	90	74	(46-148)	19	20%
<i>Ethylbenzene</i>	87	72	(32-160)	19	20%
<i>m,p-Xylene</i>	82	65	(35-145)	21	20%
<i>o-Xylene</i>	96	86	(35-145)	11	20%

Surrogate Recoveries

	S1	S2
	Percent	Percent
<i>Laboratory Identification</i>	<i>Recovered</i>	<i>Recovered</i>
<i>Limit Percent Recovery</i>	(70-130)	
15744-6700	88	
15745-6700	86	
	7/12	(pc)
	8/27/97	8/21/97

S1: Flourobenzene

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT*for EPA Method 8020*

Date Analyzed: 21-Aug-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Units of Measure
Average Amount of All Analytes In Blank	< 1.0	ppb

Calibration Check

Parameter	Units of Measure	True Value	Analyzed Value	RPD	Limit
Benzene	ppb	60.0	63.7	6	15%
Toluene	ppb	60.0	65.8	9	15%
Ethylbenzene	ppb	60.0	65.5	9	15%
m,p-Xylene	ppb	120.0	127.7	6	15%
o-Xylene	ppb	60.0	63.8	6	15%

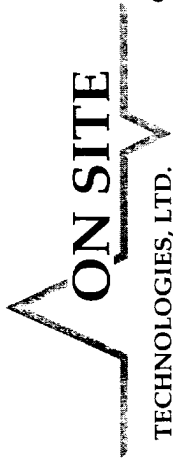
Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Benzene	99	97	(39-150)	2	20%
Toluene	100	98	(46-148)	2	20%
Ethylbenzene	98	96	(32-160)	2	20%
m,p-Xylene	94	92	(35-145)	2	20%
o-Xylene	96	94	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)	
15746-6700	92	
	HR	(MC)
	8/27/97	8/22/97

S1: Fluorobenzene



CHAIN OF CUSTODY RECORD

6700

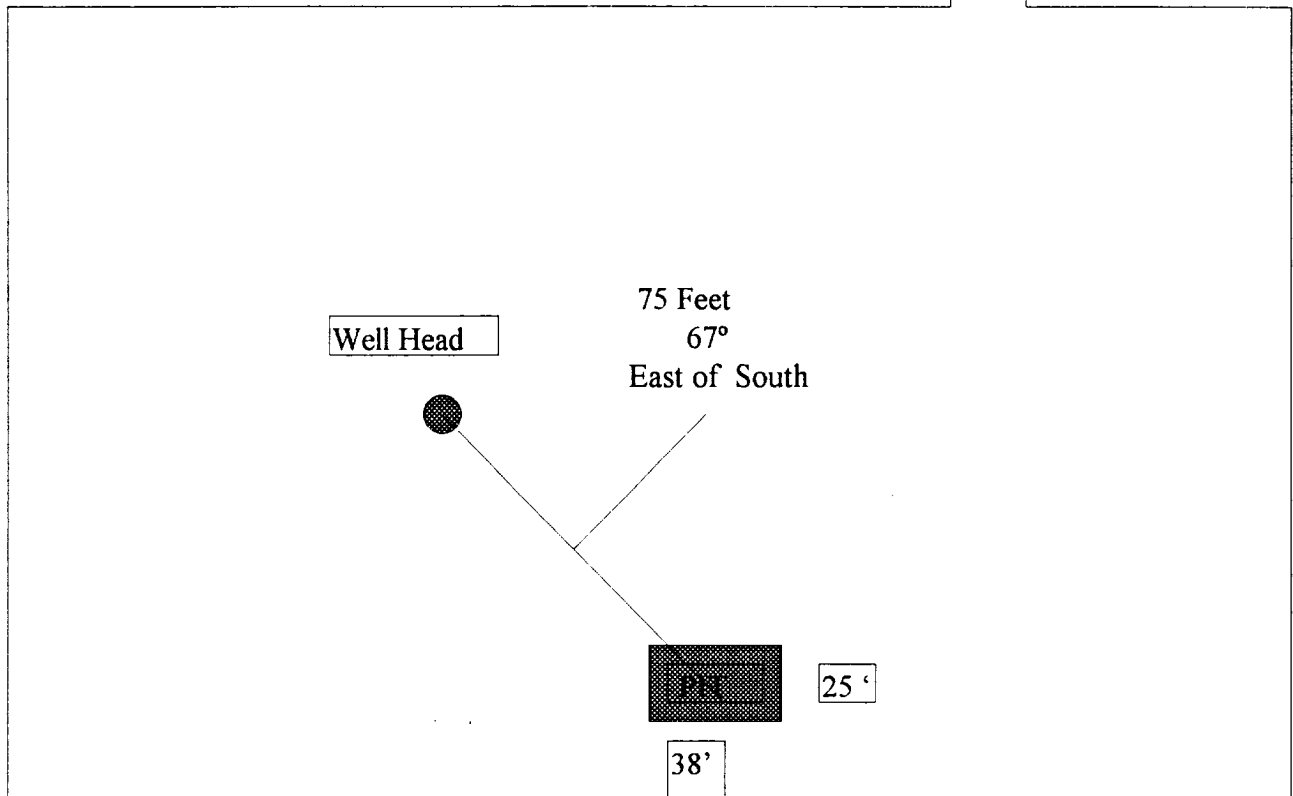
Date: 8/16/77

Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No. 4-1001	
Name		Company	
Address		City, State, Zip	
Telephone No.		Telefax No.	
Sampling Location:		ANALYSIS REQUESTED	
Sampler: Larry T. Smith		LAB ID	
SEND INVOICE TO		Number of Containers	
REPORT TO		Date/Time	
Received by:		Date/Time	
Received by:		Date/Time	
Received by:		Date/Time	
Rush		10 Working Days	
24-48 Hours		Special Instructions:	
Relinquished by: Larry T. Smith		Date/Time 8/16/77	
Relinquished by:		Date/Time	
Relinquished by:		Date/Time	
Method of Shipment:		Date/Time	
Authorized by:		Date	
(Client Signature Must Accompany Request)			

Entrance road _____



SIMMONS E-1A, J QUADRANT, SECTION 26, T-29-N, R-9-W, SAN JUAN COUNTY, NM

PIT LOCATION DIAGRAM

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Bobby Crabb*
 Company: *On Site Technologies, Ltd.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *15-Nov-96*
 COC No.: *6184*
 Sample No. *12854*
 Job No. *4-1317*

Project Name: *D.J. Simmons - Simmons E-1A*
 Project Location: *E-1A*
 Sampled by: *RLC*
 Analyzed by: *DC/HR*
 Sample Matrix: *Soil*

Date: *13-Nov-96* Time: *12:15*
 Date: *14-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	1787.8	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	6874.6	mg/kg	5.0	mg/kg
TOTAL	8662.4	mg/kg		

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,455	7.8	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	100	0.1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	109	109	(70-130)	0	20%
Diesel Range (C10-C28)	100	104	(70-130)	3	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*

Date: *11/15/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Bobby Crabb*
Company: *On Site Technologies, Ltd.*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: 15-Nov-96
COC No.: *6184*
Sample No. *12854*
Job No. *4-1317*

Project Name: *D.J. Simmons - Simmons E-1A*

Project Location: *E-1A*

Sampled by: *RLC*

Date: 13-Nov-96 Time: 12:05

Analyzed by: *DC*

Date: 14-Nov-96

Sample Matrix: *Soil*

Laboratory Analysis

Component	Result	Units of Measure	Detection Limit	Units of Measure
<i>Benzene</i>	5627.3	ug/kg	0.2	ug/kg
<i>Toluene</i>	69984.6	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	16950.6	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	126755.7	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	45521.2	ug/kg	0.2	ug/kg
	TOTAL	264839.4		ug/kg

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*

Date: *11/15/96*

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Bob Crabb*
 Company: *On Site Technologies, Ltd.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: 18-Dec-96
 COC No.: 6229
 Sample No. 13140
 Job No. 4-1317

Project Name: *D.J. Simmons - Simmons E-1A*
 Project Location: *Pit; 5pt. Composite*
 Sampled by: RLC
 Analyzed by: DC
 Sample Matrix: *Soil*

Date: 10-Dec-96 Time: 9:15
 Date: 17-Dec-96

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	1802.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	1197.2	mg/kg	5.0	mg/kg
TOTAL	2999.2	mg/kg		

Quality Assurance Report

GRO QC No.: 0480-STD

DRO QC No.: 0512-STD


Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,351	1,381	2.2	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	104	3.8	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	98	94	(70-130)	3	20%
Diesel Range (C10-C28)	123	106	(70-130)	11	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: 

Date: 12/18/96

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Bob Crabb*
Company: *On Site Technologies, Ltd.*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *17-Dec-96*
COC No.: *6229*
Sample No. *13140*
Job No. *4-1317*

Project Name: *D.J. Simmons - Simmons E-1A*
Project Location: *Pit; 5pt. Composite*
Sampled by: *RLC*
Analyzed by: *DC*
Sample Matrix: *Soil*

Date: *10-Dec-96* Time: *9:15*
Date: *12-Dec-96*

Laboratory Analysis

Component	Result	Units of Measure	Detection Limit	Units of Measure
<i>Benzene</i>	<i>2139.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>61970.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>14267.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>98845.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>22686.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>199908.0</i>		<i>ug/kg</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by:
Date:

DC
12/17/96

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: **Bob Crabb**
 Company: **On Site Technologies, Ltd.**
 Address: **612 E. Murray Drive**
 City, State: **Farmington, NM 87401**

Date: **18-Dec-96**
 COC No.: **6229**
 Sample No. **13141**
 Job No. **4-1317**

Project Name: **D.J. Simmons - Simmons E-1A**
 Project Location: **Pile; 10pt. Composite**
 Sampled by: **RLC** Date: **10-Dec-96** Time: **14:00**
 Analyzed by: **DC** Date: **17-Dec-96**
 Sample Matrix: **Soil**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	161.6	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	773.4	mg/kg	5.0	mg/kg
TOTAL	935.0	mg/kg		

Quality Assurance Report

GRO QC No.: 0480-STD

DRO QC No.: 0512-STD


Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,351	1,381	2.2	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	104	3.8	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	98	94	(70-130)	3	20%
Diesel Range (C10-C28)	123	106	(70-130)	11	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: 

Date: 12/18/96

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: **Bob Crabb**
Company: **On Site Technologies, Ltd.**
Address: **612 E. Murray Drive**
City, State: **Farmington, NM 87401**

Date: **17-Dec-96**
COC No.: **6229**
Sample No. **13141**
Job No. **4-1317**


Project Name: **D.J. Simmons - Simmons E-1A**
Project Location: **Pile; 10pt. Composite**
Sampled by: **RLC**
Analyzed by: **DC**
Sample Matrix: **Soil**

Date: **10-Dec-96** Time: **14:00**
Date: **12-Dec-96**

Laboratory Analysis

Component	Result	Units of Measure	Detection Limit	Units of Measure
Benzene	257.5	ug/kg	0.2	ug/kg
Toluene	3478.1	ug/kg	0.2	ug/kg
Ethylbenzene	1422.8	ug/kg	0.2	ug/kg
m,p-Xylene	10575.9	ug/kg	0.2	ug/kg
o-Xylene	2626.5	ug/kg	0.2	ug/kg
TOTAL		18360.8		ug/kg

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: 
Date: **12/12/96**

OFF: (505) 325-5667

ON SITE

TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 12-Dec-96

Internal QC No.: 0515-QC

Surrogate QC No.: 0516-QC

Reference Standard QC No.: 0417-QC

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.8	6	15%
Toluene	ppb	20.0	19.8	1	15%
Ethylbenzene	ppb	20.0	20.4	2	15%
m,p-Xylene	ppb	40.0	40.3	1	15%
o-Xylene	ppb	20.0	20.2	1	15%

Matrix Spike

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	93	89	(39-150)	3	20%
Toluene	98	94	(46-148)	3	20%
Ethylbenzene	100	96	(32-160)	3	20%
m,p-Xylene	97	93	(35-145)	3	20%
o-Xylene	99	96	(35-145)	3	20%

Surrogate Recoveries

	S1 Percent Recovered	S2 Percent Recovered
Laboratory Identification		
Limit Percent Recovery	(70-130)	
13140-6229	93	
13141-6229	89	

S1: Fluorobenzene

(12)

CHAIN OF CUSTODY RECORD

6229

Date: 12.16.96Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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