3R - 95

REPORTS

DATE: 1997



February 1, 1998

Conoco, Inc., Mid-Continent Region Attn.: Ms. Shirley Ebert, Field SHEAR Specialist 3314 Bloomfield Hwy. Farmington, NM 87401

RE:

1997 Annual Ground Water Report Conoco Location: San Juan 28-7-126

Unit M, Sec. 01, T27N, R7W, NMPM, San Juan Co., NM

Dear Ms. Ebert:

The following report summarizes the ground water remediation and monitoring activities conducted by On Site Technologies Limited Partnership and/or others on behalf of Conoco, Inc., at the referenced oil and gas location. This report covered the prior calendar year of 1997, and follows the format outlined in the Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico, submitted to the New Mexico Oil Conservation Division on October 15, 1997.

SUMMARY OF 1997 ACTIVITIES:

This report will only cover the sampling events conducted during 1997. Due to non-detectable levels of contamination New Mexico Oil Conservation Division (NMOCD), has granted an exemption to this location. The exemption allows Conoco to consider water quality monitoring complete, when four (4) consecutive quarters of sampling shows water quality levels below New Mexico Water Quality Control Commission (NMWQCC) standards. Refer to the following correspondence.

New Mexico Oil Conservation Division, January 31, 1997. letter to Mr. Neal. Goates, Senior Environmental Specialist, Conoco, Inc. Midland Division, regarding: *Ground Water Contamination Assessment San Juan Unit Wells #219, #47, #19, #126., Conoco Location, San Juan 28-7 #19, Unit G, Sec. 25, T28N, R7W, NMPM, San Juan Co., NM.*

SAMPLING:

Following the approved Conoco plan, during each sampling event, water levels were measured on all monitoring wells prior to purging and sampling. Samples were collected in laboratory supplied containers, preserved as needed, and proper chain-of-custody protocol followed. The laboratory analyses ordered, followed the Conoco Ground Water Plan.

Table 1, summarizes the monitoring well data and water levels measured during each sampling event. Table 2, summarizes the laboratory results for BTEX compounds from all water sampling completed at the referenced site, including assessment data. Table 3, summarizes the laboratory results for RCRA metals and API water quality testing, as required by NMOCD.

Copies of all laboratory reports for the calendar year 1997, along with all laboratory QA/QC documentation and chains-of-custody, are attached with this report.

PO Box 2606 Farmington, NM 505-325-5667 FAX: 505-327-1496

SUMMARY AND CONCLUSIONS:

The following conclusions are based on the 1997 ground water monitoring results and trends associated with a former production pit at the San Juan 28-7-126 well location:

- 1. BTEX contamination, has been below the NMWQCC standards during the last four (4) quarters of 1997.
- 2. API water analysis indicates high TDS (i.e., 1,438 mg/L) with high sulfate concentrations. This water quality is typical for ground water at similar sites in the Largo Canyon and is not suspected to have been a result of the ongoing oil and gas production at the site.
- 3. The site should be considered closed and no further remedial actions will need to be taken due to BTEX contamination levels below NMWQCC standards.

RECOMMENDATION:

- 1. BTEX contamination levels have remained below NMWQCC for the last four (4) quarters. The monitoring well should be plug and abandon in accordance with appropriate regulations.
- 2. No further remedial action will need to be taken.
- 3. Upon completion of ground water monitoring action, a Final Pit Closure Report will have to be submitted to NMOCD for approval.

LIMITATIONS AND CLOSURE:

This annual groundwater report documents the results of ground water monitoring for the referenced Conoco well location during the calendar year 1997. This report follows the Conoco Ground Water Plan, dated October 15, 1997.

The scope of On Site Technologies' services consisted of project management, periodic water sampling and measurement of water levels, laboratory testing for ground water quality, and preparation of the annual report. All work has been performed in accordance with generally accepted professional practices in geotechnical, petroleum and environmental engineering, and hydrogeology.

This document has been prepared by On Site Technologies for the exclusive use of Conoco Inc., as it pertains to the referenced well location operated by Conoco.

If there are any questions regarding this status report, please contact either Myke Lane or Larry Trujillo at On Site Technologies, (505) 325-5667. Thank you for your consideration.

Respectfully submitted,

Reviewed by:

Larry/Trajillo
Project Manager

Michael K. Lane, P.E. Senior Engineer

On Site Technologies, Limited Partnership

Conoco, Inc.: San Juan 28-7-126 On Site Technologies, Ltd. 1997 Annual Ground Water Summary February 1, 1998 Project 2-1360

Attachments:

Table 1: Monitoring Well Details and Ground Water Levels Summary

Table 2: Ground Water BTEX Analytical Summary Table 3: Other Constituents Analytical Summary

Figure 1: Site Sketch

Figure 2: Ground Water Potentiometric Map (Not Applicable) Boring Logs and Monitoring Well Diagrams (Not Available)

Laboratory Results, QA/QC, Chain of Custody

Acknowledgment: CONOCO, Inc.

Sturly 8. Ehrst Steam Spec. (Name/Title)

2/19/98 (Date)

MKL/mkl: 41360-97.doc

On Site Technologies
Table 1
Ground Water Level Summary
San Juan 28-7-126

	Relative Groundwater Elevation (ft)	6094.58	6094.39	6094.44		
	Depth to Groundwater (#) Relative Groundwater (BTDC)* Elevation (ft)	75.42	75.61	75.56		
R7W	Sample Date	06/10/97	10/09/97	12/22/97		
Unit M, Sec. 01, T27N, R7W	Well Type Screen Interval (fil) (BGS)					
	Total Depth of Well (fit	82.79				
	Elevation at Ground Surface (ft)	6170.00				
	Well Number	MW#1				

BGS - approximate measurements taken as Below Ground Surface BTOC - Below Top of Cashig NM - Not Measured gwit360.doc

On Site Technologies Table 2 BTEX Analytical Summary San Juan 28-7-126 Unit M, Sec. 01, T27N, R7W

	Total BTEX	5533.0	233.0	42.6	4.3	3.9	1.8	6.1		
5A 8020		1941.0	201.0	24.5	2.2	2.2	0.7	3.1	620.0	
BTEX per EPA 8020 (ppb)	Ethylbenzen e	164.0	13.0	7.4	0.8	0.7	BDL	0.3	750.0	
	Loinene	3,190.0	19.0	10.7	1.0	1.0	1.0	2.7	750.0	
	Benzene	238.0	BDL	BDL	6.0	BDL	BDL	BDL	10.0	
Remarks		IML	IML	IML	On Site Lab.	On Site Lab.	On Site Lab.	On Site Lab.		
Monitor Well		MW#1	MW#1	MW#1	MW#1	MW#1	MW#1	MW#1	LEVELS	
Sample ID#		G01374	039600353	0396G01349	14048	14896	16561	17209	ACTION	ection Levels
Sample Date		08/11/95	03/12/96	07/17/96	03/26/97	06/10/97	10/9/97	12/22/97	MOCC	BDL, Below Detection Levels

Other Constitutes Analytical Summary San Juan 28-7-126 Unit M, Sec. 01, T27N, R7W API Results On Site Technologies Table 3

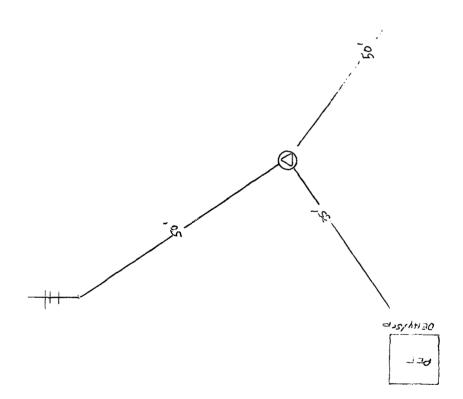
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			MEASURE	Standards	MEASURE			တ	MEASU	Standard	MEASU
									RE	S	RE
Sodium	Na	112.0	mg/L			Chloride	ت ت	8.0	mg/L	250.0	mg/L
Calcium	Ca	270.0	mg/L			Sulfate	SO ₄	771	mg/L	0'009	mg/L
Magnesium	Mg	44.0	mg/L			Carbonate	င်ဝဒ	1>	mg/L		
Potassium	X	3.69	mg/L			Bicarbonate	HCO ₃	230.0	mg/L		
						Hydroxide	유	۱>	mg/L		
Sample Date: September 15.1997	Septemb	per 15.1997				Sulfide	လွ	ΑN	mg/L		
						Iron	Fe	<0.05	mg/L	1.0	mg/L
Cation-Anion Balance	alance					Total Dissolved Solids	d Solids	1438.0	mg/L	1000.0	mg/L
						Hd		.7.	7.03	between 6 and 9	6 and 9
Difference Cation-Anion me/L	on-Anior	שע ר me/L	2.03			Resistivity		5.1	5.1948	m-m4o	-m
Total Cation-Anion me/L	ion me/	7	42.09			Specific Gravity	ty	1.0	.0017		
Difference Cation-Anion	on-Anior		4.8%			Total hardness of CaCO ₃	s of CaCO ₃	95	855.0	mg/l	/L
			I			- 7 7 9 9					

RCRA Metals

Test Method SW-846

		OHOLARO DOLLIDIA 160		
PARAMETER	RESULTS	UNITS	Wacc	UNITS
Mercury by CVAA	<0.0005	mg/L	0.002	mg/L
Arsenic by ICP	<0.15	mg/L	0.1	mg/L
Barium by ICP	0.29	mg/L	1.0	mg/L
Cadmium by ICP	<0.020	mg/L	0.01	mg/L
Chromium by ICP	<0.050	mg/L	0.05	mg/L
Lead by ICP	<0.20	mg/L	0.05	mg/L
Selenium by ICP	<0.35	mg/L	0.05	mg/L
Silver by ICP	<0.030	mg/L	0.05	mg/L





1



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Larry Trujillo

Date:

30-Dec-97

Company: On Site Technologies, Ltd.

COC No.:

Job No.:

6781

Address:

17209

612 E. Murray Drive City, State: Farmington, NM 87401 Sample No.:

2-1360

Project Name:

Conoco, Inc. - San Juan 28-7-126

Project Location:

28-7-126

Date:

22-Dec-97 Time:

7:57

Sampled by: Analyzed by: LT HR

Date:

26-Dec-97

Sample Matrix:

Liquid

		Results as	Unit of	Limit of	Unit of
Parameter		Received	Measure	Quantitation	Measure
_					
Benzene		ND	ug/L	0.2	ug/L
Toluene		2.7	ug/L	0.2	ug/L
Ethylbenzene		0.3	ug/L	0.2	ug/L
m,p-Xylene		2.4	ug/L	0.2	ug/L
o-Xylene	- " - "	0.7	ug/L	0.2	ug/L
	TOTAL	6.1	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By:
Date: 12/30/97



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 26-Dec-97

Internal QC No.:

0559-STD

Surrogate QC No.:

0567-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

		Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

Calibration Check

	Unit of	True	Analyzed		
Parameter	Measure	Value	Value	RPD	Limit
Benzene	ppb	20.0	20.8	4	15%
Toluene	ppb	20.0	21.7	8	15%
Ethylbenzene	ppb	20.0	21.2	6	15%
m,p-Xylene	ppb	40.0	40.9	2	15%
o-Xylene	ppb	20.0	20.9	4	15%

Matrix Spike

	1- Percent	2 - Percent			
Parameter	Recovered	Recovered	Limit	RPD	Limit
Benzene	91	92	(39-150)	1	20%
Toluene	98	98	(46-148)	0	20%
Ethylbenzene	90	94	(32-160)	2	20%
m,p-Xylene	92	95	(35-145)	3	20%
o-Xylene	96	96	(35-145)	0	20%

Surrogate Recoveries

Carregate	Recoveries	1			
	S1	S2		S1	S2
	Percent	Percent		Percent	Percent
Laboratory Identification	Recovered	Recovered	Laboratory Identification	Recovered	Recovered
Limit Percent Recovered	(70-130)	1	Limit Percent Recovered	(70-130)	
17209-6781	93				:
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				AM.	(m)
				12/31/97	12/30/97

S1: Flourobenzene

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Date: 12/22/77

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Method of Shipment:			Rush	24-48 Hours	10 Working Days	Special Instructions:
Authorized by:		Date				
	(Client Signature Must Accompany Request)					
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Date: 15/25/

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LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Larry Trujillo

Date:

22-Oct-97

Company: On Site Technologies, Ltd. C/o Conoco, Inc.

COC No.:

Job No.:

6518

Address:

16563

City, State: Farmington, NM 87401

612 E. Murray Drive

Sample No.:

2-1360

Project Name:

Conoco, Inc. - 28-7-126

Project Location:

28-7-126-#1 LT

Date:

9-Oct-97 Time:

12:00

Sampled by: Analyzed by:

DC

Date:

20-Oct-97

Sample Matrix:

Liquid

	Results as	Unit of	Limit of	Unit of
Parameter	Received	Measure	Quantitation	Measure
Benzene	ND	ug/L	0.2	ug/L
Toluene	1.0	ug/L	0.2	ug/L
Ethylbenzene	ND	ug/L	0.2	ug/L
m,p-Xylene	0.5	ug/L	0.2	ug/L
o-Xylene	0.2	ug/L	0.2	ug/L
TC	0 <i>TAL</i> 1.8	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By:



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 20-Oct-97

Internal QC No.:

0527-STD

Surrogate QC No.:

0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

		Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

Calibration Check

	Unit of	True	Analyzed		
Parameter	Measure	Value	Value	RPD	Limit
Benzene	ppb	20.0	18.5	8	15%
Toluene	ppb	20.0	19.2	4	15%
Ethylbenzene	ppb	20.0	19.2	4	15%
m,p-Xylene	ppb	40.0	37.2	7	15%
o-Xylene	ppb	20.0	19.1	5	15%

Matrix Spike

Mulix	1- Percent	2 - Percent			
Parameter	Recovered	Recovered	Limit	RPD_	Limit
Benzene	91	90	(39-150)	0	20%
Toluene	94	93	(46-148)	1	20%
Ethylbenzene	95	93	(32-160)	2	20%
m,p-Xylene	92	91	(35-145)	1	20%
o-Xylene	94	94	(35-145)	0	20%

Surrogate Recoveries

Garrogato	necoveries				
	S1	S2		S1	S2
	Percent	Percent		Percent	Percent
Laboratory Identification	Recovered	Recovered	Laboratory Identification	Recovered	Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
16563-6518	95				
				Jun	(D)
				10/22/97	10/12/97

\$1: Flourobenzene

5518

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LAB: (505) 325-1556

API WATER ANALYSIS

Attn:

Larry Trujillo

Date:

10-Oct-97

Company: On Site Technologies, Ltd. c/o Conoco, Inc.

COC No.:

6492

Address:

612 E. Murray Drive

Sample ID:

16279

City, State: Farmington, NM 87401

Job No.:

4-1360

Project Name:

Conoco Inc. - 28-7-126

Project Location:

4-1360

LT

Date:

15-Sep-97 Time:

14:10

Sampled by: Analyzed by:

HR

Date: 25-Sep-97

API RP-45 Laboratory Analysis

			Unit of			Unit of	
Parameter		Result	Measure		Result	Measure	
Cations							
Sodium	Na	112	mg/L		4.87	me/L	
Calcium	Са	270	mg/L		13.47	me/L	
Magnesium	Mg	44	mg/L		3.62	me/L	
Potassium	К	3.69	mg/L		0.09	me/L	
Anions							
Chloride	CI	8	mg/L		0.21	me/L	
Sulfate	S04	771	mg/L		16.05	me/L	
Carbonate	соз	< 1	mg/L		< 0.01	me/L	
Bicarbonate	нсоз	230	mg/L		3.77	me/L	
Hydroxide	ОН	<1	mg/L		< 0.01	me/L	
Sulfide	S2	NA	mg/L		NA	me/L	
Iron	Fe	< 0.05	mg/L		<0.01	me/L	
Total Dissolved S	olids				Cation-Anic	on Balance	,
Calculated, Sum of 0	Cation/Anion	1438	mg/L		2.03	Difference Catio	n-Anion, me/L
				1	42.09	Total Cation-An	ion, me/L
pΗ		7.03		4.8 % Difference Cation-Anion		tion-Anion	
Resistivity		5.1948	ohm-m			-	
Specific Gravity		1.0017			Comm	ents	_
Total Hardness as	s CaCO3	855	mg/L]	NA:	Not Analyzed	-

Approved by:



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

API RP-45 Water Analysis

Date:

25-Sep-97

Quality Control Sample

	Laboratory	True	Analyzed	Unit of		Limit
Parameter	Identification	Value	Value	Measure	% Diff	% Diff
Sodium, Na	0541-QC	2.32	2.22	mg/L	-4	10
Calcium, Ca	0465-QC	2.18	2.03	mg/L	-7	10
Magnesium, Mg	0465-QC	1.14	1.22	mg/L	7	10
Potassium, K	0541-QC	1.33	1.30	mg/L	-2	10
Chloride, Cl	0538-QC	66	70	mg/L	6	10
Sulfate, SO4	0538-QC	78	74	mg/L	-4	10
Alkalinity	0538-QC	159	168	mg/L	6	10
Iron, Fe	0495-QC	1.00	0.98	mg/L	-2	10
ρΗ	0538-QC	9.13	9.27		2	10
Conductivity	0541-QC	740	751	uS/cm	1	15

Matrix Spike

	Laboratory	Analyzed	Matrix	Spike	Unit of	Spike	
Parameter	Identification	Value	Spike	Value	Measure	Recovery	
Sodium, Na	16203-6477	0.84	0.50	1.38	mg/L	103%	
Calcium, Ca	16208-6478	1.28	0.50	1.75	mg/L	98%	
Magnesium, Mg	16208-6478	1.95	0.50	2.45	mg/L	100%	
Potassium, K	16203-6477	0.88	0.50	1.36	mg/L	99%	
Iron, Fe	16308-6500	0.04	0.50	0.50	mg/L	93%	

Method Blank

Parameter	Laboratory Identification	Analyzed Value	Unit of Measure
Sodium, Na	LF-Blank	< 0.2	mg/L
Calcium, Ca	LF-Blank	< 0.05	mg/L
Magnesium, Mg	LF-Blank	< 0.05	mg/L
Potassium, K	LF-Blank	< 0.05	mg/L
Iron, Fe	LF-Blank	< 0.05	mg/L
Chloride, Cl	LF-Blank	<3 X DL	mg/L
Sulfate, SO4	LF-Blank	<1	mg/L
Sulfide, SO2	LF-Blank	NA	mg/L
Conductivity	LF-Blank	<2	uS/cm

(0e), JAR 10/15 7- 1917/97 October 9, 1997

Mr. David Cox
On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Reference:

Project: Conoco 28-7-126

MSAI Group: 17962

Dear Mr. Cox:

Enclosed are the analytical results for your project referenced above. The following sample is included in the report.

16279-6492

All holding times were met for the tests performed on these samples.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting Mountain States Analytical, Inc. to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

With Regards,

Rolf E. Larsen

Project Manager

Mountain States Analytical, Inc.

RECEIVED OCT 1 6 1997

The Quality Solution

On Site Technologies, Ltd.

612 E Murray Drive Farmington, NM 87401

Attn: Mr. David Cox Project: Conoco 28-7-126

Sample ID: 16279-6492 Matrix: Waste Water MSAI Sample: 68596 MSAI Group: 17962 Date Reported: 10/09/97 Discard Date: 11/08/97 Date Submitted: 09/23/97 Date Sampled: 09/15/97

Collected by: D Purchase Order: Project No.:

Test	Analysis	Results as Received	Units	Limit of Quantitation
0259B	Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.0005
03921	Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Complete		
0392M	Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	w O		
7245	Arsenic by ICP, w/ww, 6010A Method: SW-846 6010A	ND	mg/l	0.15
7246	Barium by ICP, w/ww, 6010A Method: SW-846 6010A	0.29	mg/l	0.02
7249	Cadmium by ICP, w/ww, 6010A Method: SW-846 6010A	ND	mg/l	0.020
7251	Chromium by ICP, w/ww, 6010A Method: SW-846 6010A	ND	mg/l	0.050
7255	Lead by ICP, w/ww, 6010A Method: SW-846 6010A	ND	mg/l	0.20
7264	Selenium by ICP, w/ww, 6010A Method: SW-846 6010A	ND	mg/l	0.35
7266	Silver by ICP, w/ww, 6010A Method: SW-846 6010A	ND	mg/l	0.030





Page 2

On Site Technologies, Ltd.

The Quality Solution

MSAI Sample:

68596

MSAI Group:

17962

Sample ID: 16279-6492

 $\ensuremath{\mathsf{ND}}$ - $\ensuremath{\mathsf{Not}}$ detected at the limit of quantitation

This report consists of the following items: A cover letter, a signed analytical report for each sample specified on the cover letter, and if applicable, an inorganic quality control summary. Organic sample reports contain footnotes which describe any quality control anomalies which may have occurred.

Respectfully Submitted, Reviewed and Approved by:

Rolf E. Larsen

Project Manager



Date: 5/12/97

Page.

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

ON SITE

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TECHNOLOGIES, LTD.

Date: _

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

ON SITE

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Date:

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

TECHNOLOGIES, LTD.

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

ON SITE

TECHNOLOGIES, LTD.

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Date: __

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

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LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Larry Trujillo

Date:

17-Jun-97

Company: On Site Technologies, Ltd. c/o Conoco

COC No.:

6418

Address:

Sample No.:

14896

City, State: Farmington, NM 87401

612 E. Murray Drive

Job No.:

4-1360

Project Name:

Conoco - San Juan 28-7-126

Project Location:

San Juan 28-7-126

Date:

10-Jun-97 Time:

14:35

Sampled by: Analyzed by: LT DC

Date:

12-Jun-97

Sample Matrix:

Liquid

Parameter		Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene		ND	ug/L	0.2	ug/L
Toluene		1.0	ug/L	0.2	ug/L
Ethylbenzene		0.7	ug/L	0.2	ug/L
m,p-Xylene		1.7	ug/L	0.2	ug/L
o-Xylene		0.5	ug/L	0.2	ug/L
	TOTAL	3.8	ug/I		

ND - Not Detected at Limit of Quantitation

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

Approved By: Date:

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P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 12-Jun-97

Internal QC No.:

0527-STD

Surrogate QC No.:

0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

		Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	< 0.2	ppb

Calibration Check

•	Unit of	True	Analyzed		
Parameter	Measure	Value	Value	% Diff	Limit
Benzene	ppb	20.0	20.0	0	15%
Toluene	ppb	20.0	20.6	3	15%
Ethylbenzene	ppb	20.0	21.2	6	15%
m,p-Xylene	ppb	40.0	39.5	1	15%
o-Xylene	ppb	20.0	20.6	3	15%

Matrix Spike

	1- Percent	2 - Percent			
Parameter	Recovered	Recovered	Limit	%RSD	Limit
Benzene	89	86	(39-150)	2	20%
Toluene	94	88	(46-148)	2	20%
Ethylbenzene	97	94	(32-160)	2	20%
m,p-Xylene	90	86	(35-145)	2	20%
o-Xylene	95	91	(35-145)	2	20%

Surrogate Recoveries

Surroyate	necoveries				
	\$1	S2		\$1	\$2
	Percent	Percent		Percent	Percent
Laboratory Identification	Recovered	Recovered	Laboratory Identification	Recovered	Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
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S1: Flourobenzene

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ON SITE CHAIN OF CUSTODY RECORD

Date: 6/10/97

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LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:

Michael Lane

Date:

1-Apr-97

Company: On Site Technologies, Ltd. c/o Conoco

COC No.:

5101

Address:

Sample No.:

14048

City, State: Farmington, NM 87401

612 E. Murray Drive

Job No.:

4-1360

Project Name:

Conoco - 28-7 #126

Project Location:

MW-1

HR

Date: Date: 26-Mar-97 Time:

31-Mar-97

12:25

Sampled by: Analyzed by: Sample Matrix:

DC

Liquid

Parameter		Result	Unit of Measure	Detection Limit	Unit of Measure
	:				
Benzene		0.3	ug/L	0.2	ug/L
Toluene		1.0	ug/L	0.2	ug/L
Ethylbenzene		0.8	ug/L	0.2	ug/L
m,p-Xylene		1.7	ug/L	0.2	ug/L
m,p-Xylene o-Xylene		0.5	ug/L	0.2	ug/L
	TOTAL	4.3	ug/L		

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

Approved By: Date:



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 31-Mar-97

Internal QC No.:

0527-STD

Surrogate QC No.:

0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

		Unit of
Parameter	Result	Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

	Unit of	True	Analyzed		
Parameter	Measure	Value	Value	% Diff	Limit
Benzene	ppb	20.0	18.0	10	15%
Toluene	ppb	20.0	19.1	5	15%
Ethylbenzene	ppb	20.0	19.5	3	15%
m,p-Xylene	ppb	40.0	37.6	6	15%
o-Xylene	ppb	20.0	19.3	3	15%

Matrix Snike

INGUIX	Оріке				
Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	87	80	(39-150)	3	20%
Toluene	90	81	(46-148)	2	20%
Ethylbenzene	96	89	(32-160)	5	20%
m,p-Xylene	93	_86	(35-145)	4	20%
o-Xylene	95	88	(35-145)	4	20%

Surrogate Recoveries

Surroyate	Necoveries				
	S1 Percent	S2 Percent		S1 Percent	S2 Percent
Laboratory Identification	Recovered	Recovered	Laboratory Identification	Recovered	Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
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\$1: Flourobenzene

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CHAIN OF CUSTODY RECORD

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Method	Method of Shipment:		Rush	24-48 Hours 10	10 Working Days	Special Instructions:	
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	SIO	Distribution: White - On Site Yellow - LAB	Pink - Sampler	mpler Goldenrod - Client			7