

3R - 83

REPORTS

DATE:

1/4/1999



January 4, 1999

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

RECEIVED

RE: 1998 Annual Ground Water Report
Conoco Location: Farmington, B COM #1
Unit H, Sec. 12, T29N R13W, NMPM, San Juan Co., NM

FEB 19 1999

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

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 covers the calendar year of 1998, 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* (hereafter known as the monitoring plan), submitted to the New Mexico Oil Conservation Division on October 15, 1997.

SUMMARY OF 1998 ACTIVITIES:

Ground water sampling events were conducted in March, June, September and December of 1998.

September 1998, NMOCD modified the sampling requirements as follows:

- Discontinue sampling all WSPs that have four (4) quarters of water quality below NMWQCC standards.
- WSP-1 is the only point requiring further monitoring.
- All sampling point will be sampled during the final round for closure.
- Install a piezometer as an additional sampling point.
- Develop and sample the piezometer after installation, if clean discontinue sampling.
- To use Regenesi[®] Oxygen Release Compound (ORC) in the vicinity of WSP-1.

December 3, 1998, Regenesi[®] Oxygen Release Compound (ORC) was placed around WSP-1 of the B Com #1. Using a Geoprobe[®] three boring were advanced ten feet out from WSP-1 and to a depth of approximately seven (7) feet. The borings were located to the northeast, northwest, and to the south of WSP-1. Approximately eight (8) pound of ORC powder was mixed with water and poured into each of the borings and borings were backfilled.

December 18, 1998, a piezometer was installed at B Com#1. The piezometer is located approximately forty (40) feet to the northeast of WSP-1 (see ground water potentiometric map for location).

December 21, 1998, piezometer groundwater level was measured and piezometer was developed by purging the piezometer dry (approximately five-volumes).

December 31, 1998, the location was resurveyed to establish piezometer's elevation. The Groundwater Level Summary (table 1) has been updated to reflect any changes.

PO Box 2606
Farmington, NM

505-325-5667

FAX: 505-327-1496

Results of the excavation efforts, site assessment, and ground water sampling were previously documented in the following correspondence.

On Site Technologies, Ltd., April 16, 1997, letter to Mr. W.L. Brignon, Senior Council Conoco, Inc. Midland Division, regarding: Investigation and Remediation Summary, Conoco Location, Farmington B Com #1, Unit H, Sec. 12, T29N, R12W, NMPM, San Juan Co., NM.

On Site Technologies, Ltd., November 6, 1996, letter to Mr. C. John Coy, Field SHEAR Specialist Conoco, Inc. Midland Division, regarding: Suspected Hydrocarbon Release Interim Report, Conoco Location, Farmington B Com #1, Unit H, Sec 12, T29N, R12W, NMPM, San Juan Co., NM.

Boring logs, monitoring well diagrams, API water and RCRA metal analysis were previously documented in the following correspondence.

On Site Technologies, Ltd., February 1, 1997, letter to Ms. Shirley Ebert, Field SHEAR Specialist Conoco, Inc. Midland Division, regarding: 1997 Annual Ground Water Report, Conoco Location, Farmington B Com #1, Unit H, Sec 12, T29N, R12W, NMPM, San Juan Co., NM.

SAMPLING:

In accordance with the monitoring plan, water levels were measured in all monitoring wells prior to purging and sampling. Samples were collected, preserved and transported in accordance with Environmental Protection Agency (EPA) prescribed procedures, 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 previous and current sampling events. Table 2, summarizes the laboratory results for BTEX compounds from all water sampling completed at the referenced site.

Copies of all laboratory reports for the calendar year 1998, along with all laboratory QA/QC documentation and chains-of-custody, are attached with this report.

SUMMARY AND CONCLUSIONS:

The following conclusions are based on the 1998 ground water monitoring results and trends associated with the Farmington B Com #1 well location:

1. BTEX constituents, appears above the New Mexico Water Quality Control Commission (NMWQCC) standards.
2. WSP #1 continues to show high concentrations of BTEX contamination.
3. The 1998 ground water elevations and flow gradient fluctuated seasonally with changes in irrigation and flow in the Animas River. Ground water appears to flow to the northwest at an average of 0.0045 feet/foot.

RECOMMENDATION:

1. Continue to monitor WSP-1 until four (4) clean sampling events.
2. All other WSP to be sampled during final round for closure.
3. When sampling requirements have been completed. Plug and abandoned all monitoring wells in accordance with NMOCD regulations.

LIMITATIONS AND CLOSURE:

This annual ground water report documents the results of ground water monitoring for the referenced Conoco well location during the calendar year 1998. This report follows the Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico, 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 Trujillo, C.H.M.M.
Project Manager

On Site Technologies, Limited Partnership


Michael K. Lane, P.E.
Senior Engineer

Attachments: Table 1: Monitoring Well Details and Ground Water Levels Summary
Table 2: Ground Water BTEX Analytical Summary
Figure 1: Site Sketch
Figure 2: Ground Water Potentiometric Map
Figure 3: Ground Water Potentiometric Map
Figure 4: Ground Water Potentiometric Map
Laboratory Results, QA/QC, Chain-of Custody

Acknowledgment:
CONOCO, Inc.


(Name/Title)

2/17/99
(Date)

Table 1
Groundwater Level Summary
Farmington B Com 1
Unit H, Sec. 12, T29N, R12W

Well Number	Top of Casing Elevation* (ft)	Total Depth of Well (ft)*	Well Type	Screep Interval (ft) (BGS)*	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
WSP-0	100.83	9.41	1" PVC	9.41	06/01/97	7.30	93.53
					09/16/97	7.21	93.62
					12/05/97	6.71	94.12
					3/12/98	6.97	93.86
					6/15/98	7.01	93.82
					9/15/98	6.82	94.01
					12/21/98	6.80	94.03
WSP-1	98.01	9.73	2" PVC	4.73-9.73	06/01/97	5.43	92.58
					09/16/97	6.52	91.49
					12/05/97	4.07	93.94
					3/12/98	4.26	93.75
					6/15/98	4.32	93.69
					9/15/98	4.12	93.89
					12/21/98	4.18	93.83
WSP-2	99.31	10.16	2" PVC	5.16-10.16	06/01/97	5.57	93.74
					09/16/97	6.37	92.94
					12/05/97	6.22	93.09
					3/12/98	6.35	92.96
					6/15/98	6.41	92.90
					9/15/98	6.31	93.00
					12/21/98	6.17	93.14

* Temporary Bench Mark (TBM): Flange of the wellhead; Relative Elevation 100'
BGS - approximate measurements taken as Below Ground Surface
BTOC - Below Top of Casing
NM - Not Measured

Table 1

Temporary Bench Mark (TBM): Flange of the wellhead. Relative Elevation 100
 BGGS - approximate measurements taken as Below Ground Surface
 BTOC - Below Top of Casing
 NM - Not Measured
 1: Resurveyed elevation as of 12/31/98
 2: Water Elevation for WSP-4 correct for March June September and December

Table 2.
BTEX Analytical Summary
Farmington B Com 1
Unit H, Sec. 12, T29N, R12W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
				Benzene	Toluene	Ethylbenzene	Total Xylene
03/18/97	13939	WSP-0	On Site Lab.	<0.3	<0.2	<0.2	0.5
06/11/97	14902			BDL	0.2	BDL	BDL
09/16/97	16205			BDL	BDL	BDL	BDL
12/5/97	17048			BDL	BDL	BDL	0.2
3/12/98	9803040-01A			BDL	BDL	BDL	BDL
6/15/98	9806057-01A			BDL	BDL	BDL	BDL
9/15/98	9809034-01A			BDL	BDL	BDL	BDL
03/18/97	13935	WSP-1	On Site Lab	557.1	146.3	555.1	3572.1
06/11/97	14903			155.0	22.0	184.0	1457.0
09/17/97	16206			175.0	23.0	179.0	1236.0
12/05/97	17049			202.0	22.0	164.0	1196.0
3/12/98	9803040-02A			110.0	25.0	150.0	1290.0
6/15/98	9806057-02A			110.0	12.0	170.0	1160.0
9/15/98	9809034-02A			69.0	13.0	150.0	1100.0
12/21/98	9812048-02A			86.0	55.0	170.0	1040.0
01/30/97	13563	WSP-2	On Site Lab.	22.5	23.0	23.7	108.0
03/18/97	13936			25.8	13.4	11.8	53.8
06/11/97	14904			10.1	5.3	9.2	22.7
09/16/97	16208			3.9	1.0	4.5	14.8
12/05/97	17050			1.6	1.0	1.4	3.6
3/12/98	9803040-03A			0.9	BDL	1.0	3.2
6/15/98	9806057-03A			BDL	BDL	BDL	1.1
9/15/98	9809034-03A			BDL	BDL	BDL	BDL
WQCC	ACTION	LEVELS		10.0	750.0	750.0	620.0

BDL Below Detection Levels

Table 2
 BTEX Analytical Summary
 Farmington B Com 1
 Unit H, Sec. 12, T29N, R12W

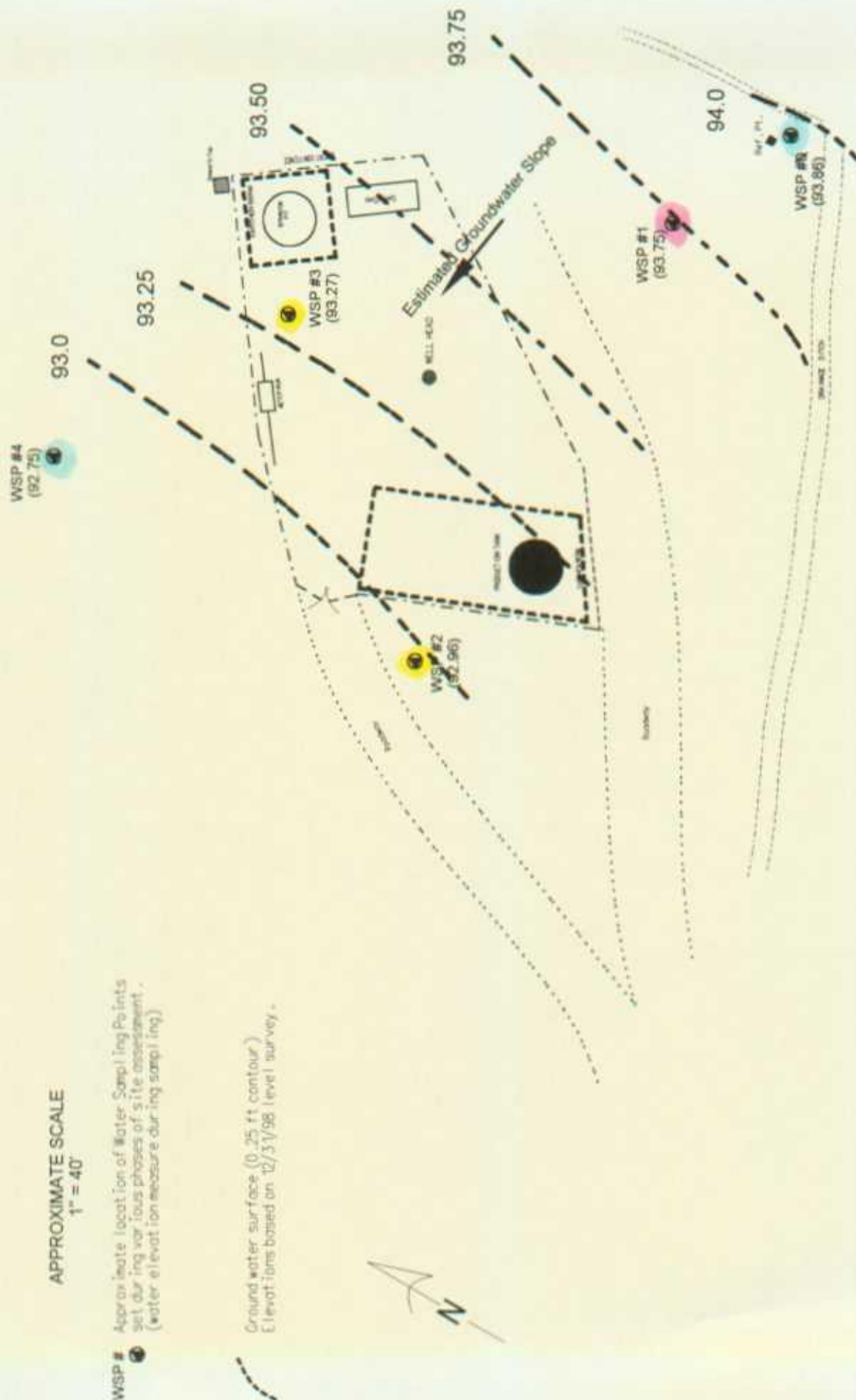
Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
				Benzene	Toluene	Ethylbenzene	Total Xylene
01/30/97	13562	WSP-3	On Site Lab.	506.8	22.0	67.8	607.1
03/18/97	13937			35.8	1.9	1.1	7.2
06/12/97	14906			8.5	0.5	1.5	1.4
09/17/97	16211			ND	0.7	0.4	0.9
12/05/97	17051			1.6	BDL	BDL	BDL
3/12/98	9803040-04A			BDL	BDL	BDL	0.5
6/15/98	9806057-04A			BDL	BDL	BDL	BDL
9/15/98	9809034-04A			BDL	BDL	BDL	BDL
03/18/97	13938	WSP-4	On Site Lab.	<0.2	27.1	<0.2	1.0
06/11/97	14905			BDL	0.2	BDL	0.4
09/16/97	16207			0.9	BDL	BDL	BDL
12/05/97	17052			BDL	BDL	BDL	BDL
3/12/98	9803040-05A			BDL	BDL	BDL	BDL
6/15/98	9806057-05A			BDL	BDL	BDL	BDL
9/15/98	9809034-05A			BDL	BDL	BDL	BDL
12/21/98	9812048-01A	Piezometer	On Site Lab.	BDL	BDL	BDL	BDL
WQCC	ACTION	LEVELS		10.0	750.0	750.0	620.0

CONOCO, INC. FARMINGTON B COM. #1 SAN JUAN CO., NM	Ground Water Potentiometric Map March 12, 1998	 ON SITE TECHNOLOGIES, LTD. P.O. BOX 1184 FARMINGTON, NM 87401 (505) 322-5447	
PROJECT: 1998 Groundwater Summary	DRWN: NOV. 6, 1996		
PROJECT NO: 4-1325	DRWN BY: MKL		
SHEET: 2A	REVISED: Feb. 16, 99		

APPROXIMATE SCALE
1" = 40'

WSP # Approximate location of Water Sampling Points
set during various phases of site assessment.
(water elevation measure during sampling)

Ground water surface (0.25 ft contour)
Elevations based on 12/31/98 level survey.



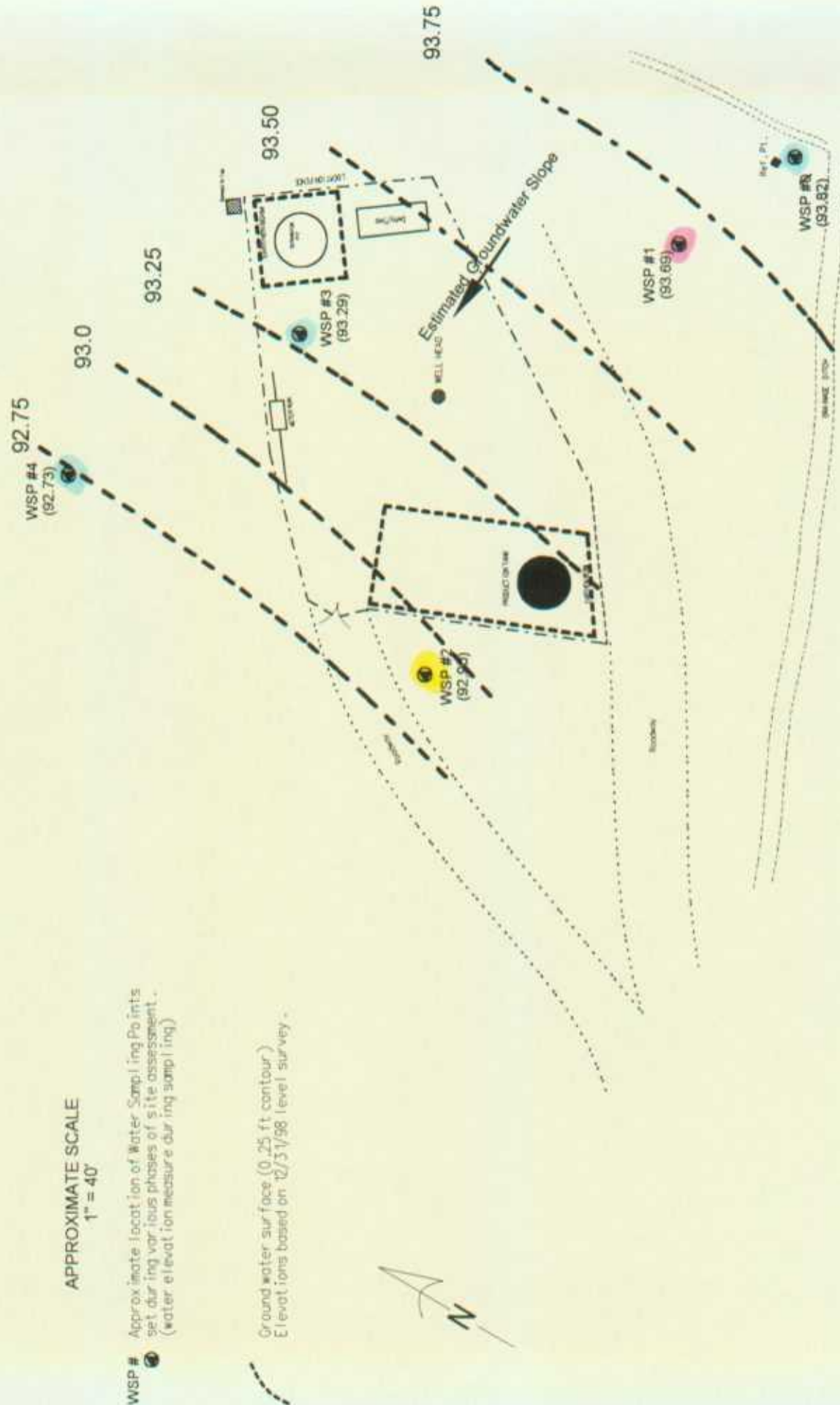
CONOCO, INC. FARMINGTON B.COM. #1 SAN JUAN CO., NM	Ground Water Potentiometric Map June 15, 1998
PROJECT: 1998 Groundwater Summary	DRWN: NOV. 6, 1996
PROJECT NO: 4-1325	DRWN BY: MKL
SHEET: 2B	REVISED: Feb. 16, 99



APPROXIMATE SCALE
1" = 40'

WSP # ① Approximate location of Water Sampling Points set during various phases of site assessment. (water elevation measure during sampling)

Ground water surface (0.25 ft contour)
Elevations based on 12/31/98 level survey.



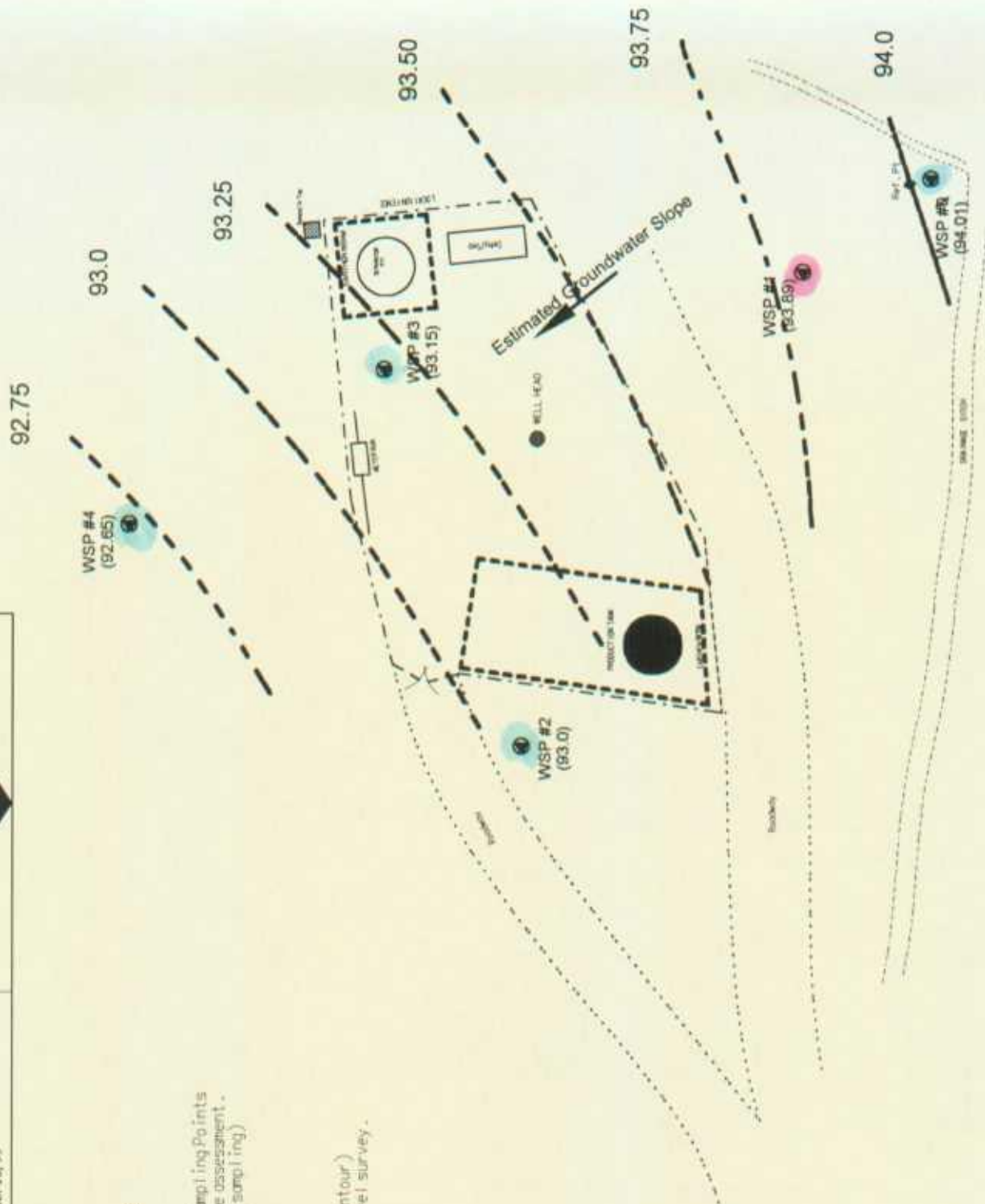
CONOCO, INC. FARMINGTON B.COM. #1 SAN JUAN CO., NM	Ground Water Potentiometric Map September 15, 1998	 ON SITE TECHNOLOGIES, LTD. P.O. BOX 1000, FARMINGTON, NM 87401 (505) 325-5027
PROJECT: 1998 Groundwater Summary	DRWN: NOV. 6, 1996	
PROJECT NO: 4-1325	DRWN BY: MKL	
SHEET: 2C	REVISED: Feb. 16, 99	

APPROXIMATE SCALE

1" = 40'

WSP #  Approximate location of Water Sampling Points set during various phases of site assessment. (water elevation measure during sampling)

Ground water surface (0.25 ft contour)
Elevations based on 12/31/98 level survey.



OFF: (505) 325-5667



LAB: (505) 325-1556

March 25, 1998

Larry Trujillo
Conoco, Inc.
3315 Bloomfield Hwy
Farmington, NM 87401
TEL: (505) 327-9557
FAX (505) 324-5825

RE: 4-1325

Order No.: 9803040

Dear Larry Trujillo,

On Site Technologies, LTD. received 5 samples on 3/12/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

BTEX (SW8020A)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in dark ink, appearing to read "D. Cox", is written over the name David Cox.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

Date: 25-Mar-98

CLIENT: Conoco, Inc.
Project: 4-1325
Lab Order: 9803040

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Mar-98

Client:	Conoco, Inc.	Client Sample Info:	Farmington B-Com 1
Work Order:	9803040	Client Sample ID:	WSP-0
Lab ID:	9803040-01A	Matrix:	AQUEOUS
Project:	4-1325	Collection Date:	3/12/98 1:45:00 PM
		COC#:	6903

Parameter	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	0.5		µg/L	1	3/19/98
Toluene	ND	0.5		µg/L	1	3/19/98
Ethylbenzene	ND	0.5		µg/L	1	3/19/98
m,p-Xylene	ND	1		µg/L	1	3/19/98
o-Xylene	ND	0.5		µg/L	1	3/19/98
Surr: Fluorobenzene	93.0	70-130		%REC	1	3/19/98
Surr: 1,4-Difluorobenzene	94.4	70-130		%REC	1	3/19/98
Surr: 4-Bromochlorobenzene	87.9	70-130		%REC	1	3/19/98

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Mar-98

Client:	Conoco, Inc.	Client Sample Info:	Farmington B-Com 1
Work Order:	9803040	Client Sample ID:	WSP-1
Lab ID:	9803040-02A	Matrix:	AQUEOUS
Project:	4-1325	Collection Date:	3/12/98 2:13:00 PM
		COC#:	6903

Parameter	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	110	2.5		µg/L	5	3/19/98
Toluene	25	2.5		µg/L	5	3/19/98
Ethylbenzene	150	2.5		µg/L	5	3/19/98
m,p-Xylene	1000	5		µg/L	5	3/19/98
o-Xylene	290	2.5		µg/L	5	3/19/98
Surr: Fluorobenzene	96.9	70-130		%REC	5	3/19/98
Surr: 1,4-Difluorobenzene	94.2	70-130		%REC	5	3/19/98
Surr: 4-Bromochlorobenzene	91.7	70-130		%REC	5	3/19/98

Qualifiers:

ND - Not Detected at the Reporting Limit

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J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Mar-98

Client:	Conoco, Inc.	Client Sample Info:	Farmington B-Com 1
Work Order:	9803040	Client Sample ID:	WSP-2
Lab ID:	9803040-03A	Matrix:	AQUEOUS
Project:	4-1325	Collection Date:	3/12/98 2:20:00 PM
		COC#:	6903

Parameter	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	0.9	0.5		µg/L	1	3/19/98
Toluene	ND	0.5		µg/L	1	3/19/98
Ethylbenzene	1	0.5		µg/L	1	3/19/98
m,p-Xylene	3.2	1		µg/L	1	3/19/98
o-Xylene	ND	0.5		µg/L	1	3/19/98
Surr: Fluorobenzene	93.0	70-130		%REC	1	3/19/98
Surr: 1,4-Difluorobenzene	94.3	70-130		%REC	1	3/19/98
Surr: 4-Bromochlorobenzene	91.6	70-130		%REC	1	3/19/98

Qualifiers:

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J - Analyte detected below quantitation limits

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* - Value exceeds Maximum Contaminant Level

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R - RPD outside accepted recovery limits

E - Value above quantitation range

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Mar-98

Client:	Conoco, Inc.	Client Sample Info:	Farmington B-Com 1
Work Order:	9803040	Client Sample ID:	WSP-3
Lab ID:	9803040-04A	Matrix:	AQUEOUS
Project:	4-1325	Collection Date:	3/12/98 2:43:00 PM
		COC#:	6903

Parameter	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	0.5		µg/L	1	3/19/98
Toluene	ND	0.5		µg/L	1	3/19/98
Ethylbenzene	ND	0.5		µg/L	1	3/19/98
m,p-Xylene	ND	1		µg/L	1	3/19/98
o-Xylene	0.5	0.5		µg/L	1	3/19/98
Surr: Fluorobenzene	94.9	70-130		%REC	1	3/19/98
Surr: 1,4-Difluorobenzene	96.4	70-130		%REC	1	3/19/98
Surr: 4-Bromochlorobenzene	95.3	70-130		%REC	1	3/19/98

Qualifiers:

ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank	E - Value above quantitation range
* - Value exceeds Maximum Contaminant Level	

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Mar-98

Client:	Conoco, Inc.	Client Sample Info:	Farmington B-Com 1
Work Order:	9803040	Client Sample ID:	WSP-4
Lab ID:	9803040-05A	Matrix:	AQUEOUS
Project:	4-1325	Collection Date:	3/12/98 2:50:00 PM
		COC#:	6903

Parameter	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	0.5		µg/L	1	3/19/98
Toluene	ND	0.5		µg/L	1	3/19/98
Ethylbenzene	ND	0.5		µg/L	1	3/19/98
m,p-Xylene	ND	1		µg/L	1	3/19/98
o-Xylene	ND	0.5		µg/L	1	3/19/98
Surr: Fluorobenzene	93.3	70-130		%REC	1	3/19/98
Surr: 1,4-Difluorobenzene	94.2	70-130		%REC	1	3/19/98
Surr: 4-Bromochlorobenzene	91.4	70-130		%REC	1	3/19/98

Qualifiers:

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B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 25-Mar-98

CLIENT: Conoco, Inc.

Work Order: 9803040

Project: 4-1325

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_980319	Test Code: SW8020A	Units: µg/L	Analysis Date: 3/19/98		Prep Date:					
Client ID:	9803040	Run ID: GC-1_980319A		SeqNo: 93							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.1309	0.5									J
Ethylbenzene	.1039	0.5									J
m,p-Xylene	.2979	1									J
o-Xylene	.1068	0.5									J
Toluene	.1636	0.5									J

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Mar-98

CLIENT: Conoco, Inc.

Work Order: 9803040

Project: 4-1325

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9803032-06AMS		Batch ID: GC-1_980319		Test Code: SW8020A		Units: µg/L		Analysis Date: 3/19/98		Prep Date:	
Client ID: 9803040		Run ID: GC-1_980319A		PQL		SPK value		SeqNo: 94			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	942.9	10	800	105.3	104.7%	56	128				
Ethylbenzene	921.7	10	800	92.88	103.6%	78	107				
m,p-Xylene	2403	20	1600	765.4	102.4%	67	118				
o-Xylene	957.2	10	800	124	104.2%	78	107				
Toluene	937.4	10	800	108.7	103.6%	74	116				

Sample ID: 9803032-06AMSD		Batch ID: GC-1_980319		Test Code: SW8020A		Units: µg/L		Analysis Date: 3/19/98		Prep Date:	
Client ID: 9803040		Run ID: GC-1_980319A		PQL		SPK value		SeqNo: 95			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	891.1	10	800	105.3	98.2%	56	128	942.9	5.6%	15	
Ethylbenzene	893.1	10	800	92.88	100.0%	78	107	921.7	3.2%	15	
m,p-Xylene	2296	20	1600	765.4	95.7%	67	118	2403	4.6%	15	
o-Xylene	907.8	10	800	124	98.0%	78	107	957.2	5.3%	15	
Toluene	886.7	10	800	108.7	97.2%	74	116	937.4	5.6%	15	

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Mar-98

CLIENT: Conoco, Inc.

Work Order: 9803040

Project: 4-1325

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_980319	Test Code: SW8020A	Units: µg/L	Analysis Date: 3/19/98	Prep Date:
Client ID: 9803040	Run ID: GC-1_980319A	PQL	SPK value	SPK Ref Val	SeqNo: 92
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	41.51	0.5	40	0.1309	103.4% 39 150
Ethylbenzene	42.39	0.5	40	0.1039	105.7% 32 160
m,p-Xylene	80.93	1	80	0.2979	100.8% 35 145
o-Xylene	41.37	0.5	40	0.1068	103.2% 35 145
Toluene	41.16	0.5	40	0.1636	102.5% 46 148

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Mar-98

CLIENT: Conoco, Inc.

Work Order: 9803040

Project: 4-1325

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0529/30		Batch ID: GC-1_980319		Test Code: SW8020A		Units: µg/L		Analysis Date: 3/19/98		Prep Date:	
Client ID: 9803040		Run ID: GC-1_980319A		PQL		SPK value		SeqNo: 87			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.65	0.5	20	0	103.3%	85	115				
Ethylbenzene	20.65	0.5	20	0	103.2%	85	115				
m,p-Xylene	39.56	1	40	0	98.9%	85	115				
o-Xylene	20.62	0.5	20	0	103.1%	85	115				
Toluene	20.4	0.5	20	0	102.0%	85	115				
1,4-Difluorobenzene	93.88	0	100	0	93.9%	70	130				
4-Bromochlorobenzene	90.08	0	100	0	90.1%	70	130				
Fluorobenzene	92.88	0	100	0	92.9%	70	130				

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980319		Test Code: SW8020A		Units: µg/L		Analysis Date: 3/19/98		Prep Date:	
Client ID: 9803040		Run ID: GC-1_980319A		PQL		SPK value		SeqNo: 88			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.63	0.5	20	0	108.2%	85	115				
Ethylbenzene	22.12	0.5	20	0	110.6%	85	115				
m,p-Xylene	41.81	1	40	0	104.5%	85	115				
o-Xylene	21.67	0.5	20	0	108.3%	85	115				
Toluene	21.33	0.5	20	0	106.6%	85	115				
1,4-Difluorobenzene	94.01	0	100	0	94.0%	70	130				
4-Bromochlorobenzene	91.89	0	100	0	91.9%	70	130				
Fluorobenzene	92.94	0	100	0	92.9%	70	130				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Conoco, Inc.
Work Order: 9803040
Project: 4-1325

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0529/30		Batch ID: GC-1_980319		Test Code: SW8020A		Units: µg/L		Analysis Date: 3/19/98		Prep Date:	
Client ID: 9803040		Run ID: GC-1_980319A		SeqNo: 89							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.44	0.5	20	0	102.2%	85	115				
Ethylbenzene	20.82	0.5	20	0	104.1%	85	115				
m,p-Xylene	39.42	1	40	0	98.6%	85	115				
o-Xylene	20.48	0.5	20	0	102.4%	85	115				
Toluene	20.22	0.5	20	0	101.1%	85	115				
1,4-Difluorobenzene	93.73	0	100	0	93.7%	70	130				
4-Bromochlorobenzene	89.69	0	100	0	89.7%	70	130				
Fluorobenzene	92.81	0	100	0	92.8%	70	130				

Sample ID: CCV4 QC0529/30		Batch ID: GC-1_980319		Test Code: SW8020A		Units: µg/L		Analysis Date: 3/19/98		Prep Date:	
Client ID: 9803040		Run ID: GC-1_980319A		SeqNo: 90							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.52	0.5	20	0	102.6%	85	115				
Ethylbenzene	23.27	0.5	20	0	116.4%	85	115				
m,p-Xylene	42.37	1	40	0	105.9%	85	115				
o-Xylene	22.3	0.5	20	0	111.5%	85	115				
Toluene	20.38	0.5	20	0	101.9%	85	115				
1,4-Difluorobenzene	93.65	0	100	0	93.7%	70	130				
4-Bromochlorobenzene	90.57	0	100	0	90.6%	70	130				
Fluorobenzene	92.76	0	100	0	92.8%	70	130				

SV
 OK 3/19/98
 CCV4
 3/19/98

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Conoco, Inc.
Work Order: 9803040
Project: 4-1325

QC SUMMARY REPORT

Continuing Calibration Verification Standard

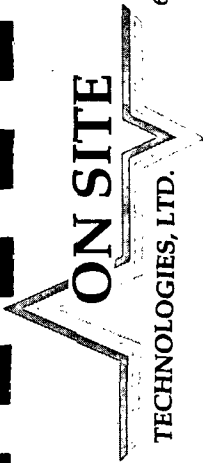
Sample ID: CCV5 QC0529/30 Batch ID: GC-1_980319 Test Code: SW8020A Units: µg/L Analysis Date: 3/19/98 Prep Date:
Client ID: 9803040 Run ID: GC-1_980319A SeqNo: 91

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.33	0.5	20	0	106.6%	85	115				
Ethylbenzene	21.29	0.5	20	0	106.5%	85	115				
m,p-Xylene	40.57	1	40	0	101.4%	85	115				
o-Xylene	21.49	0.5	20	0	107.4%	85	115				
Toluene	21.12	0.5	20	0	105.6%	85	115				
1,4-Difluorobenzene	93.61	0	100	0	93.6%	70	130				
4-Bromochlorobenzene	87.33	0	100	0	87.3%	70	130				
Fluorobenzene	92.92	0	100	0	92.9%	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



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

ON SITE

TECHNOLOGIES, LTD.

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

Page 1 of 1[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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CHAIN OF CUSTODY RECORD

Date: _____

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

[illegible]

OFF: (505) 325-5667



LAB: (505) 325-1556

June 22, 1998

Larry Trujillo
On Site Technologies, Limited Partnership
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87499
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 4-1325; Conoco

Order No.: 9806057

Dear Larry Trujillo,

On Site Technologies, LTD. received 5 samples on 6/15/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8020A)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "David Cox", written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: On Site Technologies, Limited Partnership

Project: 4-1325; Conoco

Lab Order: 9806057

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jun-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	Farmington B-Com-1
Work Order:	9806057	Client Sample ID:	WSP 0
Lab ID:	9806057-01A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	6/15/98 8:51:00 AM
		COC Record:	5151

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	0.5		µg/L	1	6/17/98
Toluene	ND	0.5		µg/L	1	6/17/98
Ethylbenzene	ND	0.5		µg/L	1	6/17/98
m,p-Xylene	ND	1		µg/L	1	6/17/98
o-Xylene	ND	0.5		µg/L	1	6/17/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jun-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	Farmington B-Com-1
Work Order:	9806057	Client Sample ID:	WSP 1
Lab ID:	9806057-02A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	6/15/98 9:54:00 AM
		COC Record:	5151

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	110	2.5		µg/L	5	6/17/98
Toluene	12	2.5		µg/L	5	6/17/98
Ethylbenzene	170	2.5		µg/L	5	6/17/98
m,p-Xylene	920	5		µg/L	5	6/17/98
o-Xylene	240	2.5		µg/L	5	6/17/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jun-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	Farmington B-Com-1
Work Order:	9806057	Client Sample ID:	WSP 2
Lab ID:	9806057-03A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	6/15/98 10:00:00 AM
		COC Record:	5151

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	0.5		µg/L	1	6/17/98
Toluene	ND	0.5		µg/L	1	6/17/98
Ethylbenzene	ND	0.5		µg/L	1	6/17/98
m,p-Xylene	1.1	1		µg/L	1	6/17/98
o-Xylene	ND	0.5		µg/L	1	6/17/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jun-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	Farmington B-Com-1
Work Order:	9806057	Client Sample ID:	WSP 3
Lab ID:	9806057-04A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	6/15/98 10:05:00 AM
		COC Record:	5151

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	0.5		µg/L	1	6/17/98
Toluene	ND	0.5		µg/L	1	6/17/98
Ethylbenzene	ND	0.5		µg/L	1	6/17/98
m,p-Xylene	ND	1		µg/L	1	6/17/98
o-Xylene	ND	0.5		µg/L	1	6/17/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 22-Jun-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	Farmington B-Com-1
Work Order:	9806057	Client Sample ID:	WSP 4
Lab ID:	9806057-05A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	6/15/98 10:10:00 AM
		COC Record:	5151

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	0.5		µg/L	1	6/17/98
Toluene	ND	0.5		µg/L	1	6/17/98
Ethylbenzene	ND	0.5		µg/L	1	6/17/98
m,p-Xylene	ND	1		µg/L	1	6/17/98
o-Xylene	ND	0.5		µg/L	1	6/17/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9806057

Project: 4-1325; Conoco

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_980617	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/17/98		Prep Date:					
Client ID:	9806057	Run ID: GC-1_980617A		SeqNo: 3179							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0648	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	.2322	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0819	0.5									J

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9806057

Project: 4-1325; Conoco

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9806053-01AMS		Batch ID: GC-1_980617	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/17/98		Prep Date:	
Client ID: 9806057		Run ID: GC-1_980617A	PQL	SPK value	SeqNo: 3180	HighLimit	LowLimit	RPDLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPDLimit
Benzene	429.5	5	400	36.48	98.3%	56	128	
Ethylbenzene	701.9	5	400	321.6	95.1%	78	107	
m,p-Xylene	3739	10	800	2933	100.6%	67	118	
Methyl tert-Butyl Ether	434.7	10	400	5.234	107.4%	70	130	
o-Xylene	390	5	400	3.084	96.7%	78	107	
Toluene	401.2	5	400	15.91	96.3%	74	116	

Sample ID: 9806053-01AMSD		Batch ID: GC-1_980617	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/17/98		Prep Date:	
Client ID: 9806057		Run ID: GC-1_980617A	PQL	SPK value	SeqNo: 3181	HighLimit	LowLimit	RPDLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPDLimit
Benzene	445.6	5	400	36.48	102.3%	56	128	12
Ethylbenzene	732.2	5	400	321.6	102.7%	78	107	11
m,p-Xylene	3903	10	800	2933	121.2%	67	118	10
Methyl tert-Butyl Ether	448.3	10	400	5.234	110.8%	70	130	15
o-Xylene	419.7	5	400	3.084	104.1%	78	107	14
Toluene	415.6	5	400	15.91	99.9%	74	116	14

SV F100000
LCS 6/22/98
6/22/98
6/22/98

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: On Site Technologies, Limited Partnership
Work Order: 9806057
Project: 4-1325; Conoco

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_980617	Test Code: SW8020A		Units: µg/L		Analysis Date: 6/17/98		Prep Date:		
Client ID:		9806057	Run ID:	GC-1_980617A			SeqNo:	3178			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.22	0.5	40	0.0648	100.4%	56	128				
Ethylbenzene	40.16	0.5	40	0	100.4%	78	107				
m,p-Xylene	77.22	1	80	0.2322	96.2%	67	118				
Methyl tert-Butyl Ether	40.63	1	40	0	101.6%	70	130				
o-Xylene	39.94	0.5	40	0	99.8%	78	107				
Toluene	39.73	0.5	40	0.0819	99.1%	74	116				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9806057

Project: 4-1325; Conoco

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0529/30		Batch ID: GC-1_980617	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/17/98		Prep Date:	
Client ID: 9806057		Run ID: GC-1_980617A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	20.8		0.5	20	0	104.0%	85	115
Ethylbenzene	21.03		0.5	20	0	105.2%	85	115
m,p-Xylene	40.25		1	40	0	100.6%	85	115
Methyl tert-Butyl Ether	20.4		1	20	0	102.0%	85	115
o-Xylene	20.74		0.5	20	0	103.7%	85	115
Toluene	20.64		0.5	20	0	103.2%	85	115
1,4-Difluorobenzene	94.02		0	100	0	94.0%	70	130
4-Bromochlorobenzene	80.22		0	100	0	80.2%	70	130
Fluorobenzene	93.82		0	100	0	93.8%	70	130

Sample ID: CCV2 QC0529/30		Batch ID: GC-1_980617	Test Code: SW8020A	Units: µg/L	Analysis Date: 6/17/98		Prep Date:	
Client ID: 9806057		Run ID: GC-1_980617A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	40.14		0.5	40	0	100.4%	85	115
Ethylbenzene	41.08		0.5	40	0	102.7%	85	115
m,p-Xylene	77.94		1	80	0	97.4%	85	115
Methyl tert-Butyl Ether	42.36		1	40	0	105.9%	85	115
o-Xylene	39.57		0.5	40	0	98.9%	85	115
Toluene	39.74		0.5	40	0	99.3%	85	115
1,4-Difluorobenzene	92.73		0	100	0	92.7%	70	130
4-Bromochlorobenzene	72.28		0	100	0	72.3%	70	130
Fluorobenzene	93.22		0	100	0	93.2%	70	130

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9806057

Project: 4-1325; Conoco

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0529/30		Batch ID: GC-1_980617	Test Code: SW8020A		Units: µg/L		Analysis Date: 6/17/98		Prep Date:	
Client ID: 9806057		Run ID: GC-1_980617A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Analyte	Result									Qual
Benzene	20.2		0.5	20	0	101.0%	85	115		
Ethylbenzene	21.06		0.5	20	0	105.3%	85	115		
m,p-Xylene	39.89		1	40	0	99.7%	85	115		
Methyl tert-Butyl Ether	21.56		1	20	0	107.8%	85	115		
o-Xylene	20.24		0.5	20	0	101.2%	85	115		
Toluene	20.28		0.5	20	0	101.4%	85	115		
1,4-Difluorobenzene	92.87		0	100	0	92.9%	70	130		
4-Bromochlorobenzene	72.41		0	100	0	72.4%	70	130		
Fluorobenzene	93.3		0	100	0	93.3%	70	130		

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 22-Jun-98

CLIENT: On Site Technologies, Limited Partnership
Work Order: 9806057
Project: 4-1325; Conoco
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9806053-01A	94.8	74.8	97.2					
9806053-01AMS	94.6	75	96.4					
9806053-01AMSD	94.6	76.7	96.4					
9806057-01A	93.6	84.3	94.2					
9806057-02A	87.9	72.6	90.7					
9806057-03A	93.4	81.6	93.8					
9806057-04A	93.4	78.8	94.6					
9806057-05A	93.3	80.1	94.4					
9806058-02A	92.2	74.3	92.7					
9806059-02A	93.5	81.1	94.2					
9806059-03A	93.2	82.6	94.4					
9806059-04A	93.4	82.8	94.3					
9806059-05A	93.2	83.6	94.4					
9806059-09A	92.7	78.3	94.2					
9806059-10A	93.3	75.6	94.3					
9806059-11A	93.3	72.9	93.6					
9806063-01A	92.1	75.8	93.2					
CCV1 QC0529/30	94	80.2	93.8					
CCV2 QC0529/30	92.7	72.3	93.2					
CCV3 QC0529/30	92.9	72.4	93.3					
LCS WATER	92.8	77.7	93.5					
MB1	93.9	73.6	94.5					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

CHAIN OF CUSTODY RECORD

Page _____ of _____

Date:

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

TECHNOLOGIES, LTD.

[illegible]

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

Page _____ of _____

Date: _____

TECHNOLOGIES, LTD.

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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OFF: (505) 325-5667



LAB: (505) 325-1556

September 25, 1998

Larry Trujillo
On Site Technologies, Limited Partnership
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87499
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 4-1325; Conoco

Order No.: 9809034

Dear Larry Trujillo,

On Site Technologies, LTD. received 5 samples on 9/15/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8020A)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in dark ink, appearing to read "David Cox", is written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: On Site Technologies, Limited Partnership

Project: 4-1325; Conoco

Lab Order: 9809034

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B Com 1
Work Order:	9809034	Client Sample ID:	WSP 0
Lab ID:	9809034-01A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	9/15/98 10:57:00 AM
		COC Record:	5556

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A		Analyst: DC		
Benzene	ND	1		µg/L	1	9/21/98
Toluene	ND	1		µg/L	1	9/21/98
Ethylbenzene	ND	1		µg/L	1	9/21/98
m,p-Xylene	ND	2		µg/L	1	9/21/98
o-Xylene	ND	1		µg/L	1	9/21/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B Com 1
Work Order:	9809034	Client Sample ID:	WSP 1
Lab ID:	9809034-02A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	9/15/98 10:59:00 AM
		COC Record:	5556

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	69	5		µg/L	5	9/21/98
Toluene	13	5		µg/L	5	9/21/98
Ethylbenzene	150	5		µg/L	5	9/21/98
m,p-Xylene	890	10		µg/L	5	9/21/98
o-Xylene	210	5		µg/L	5	9/21/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B Com 1
Work Order:	9809034	Client Sample ID:	WSP 2
Lab ID:	9809034-03A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	9/15/98 11:01:00 AM
		COC Record:	5556

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/L	1	9/21/98
Toluene	ND	1		µg/L	1	9/21/98
Ethylbenzene	ND	1		µg/L	1	9/21/98
m,p-Xylene	ND	2		µg/L	1	9/21/98
o-Xylene	ND	1		µg/L	1	9/21/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B Com 1
Work Order:	9809034	Client Sample ID:	WSP 3
Lab ID:	9809034-04A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	9/15/98 11:04:00 AM
		COC Record:	5556

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/L	1	9/21/98
Toluene	ND	1		µg/L	1	9/21/98
Ethylbenzene	ND	1		µg/L	1	9/21/98
m,p-Xylene	ND	2		µg/L	1	9/21/98
o-Xylene	ND	1		µg/L	1	9/21/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 25-Sep-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B Com 1
Work Order:	9809034	Client Sample ID:	WSP 4
Lab ID:	9809034-05A	Matrix:	AQUEOUS
Project:	4-1325; Conoco	Collection Date:	9/15/98 11:07:00 AM
		COC Record:	5556

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8020A				Analyst: DC
Benzene	ND	1		µg/L	1	9/21/98
Toluene	ND	1		µg/L	1	9/21/98
Ethylbenzene	ND	1		µg/L	1	9/21/98
m,p-Xylene	ND	2		µg/L	1	9/21/98
o-Xylene	ND	1		µg/L	1	9/21/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9809034

Project: 4-1325; Conoco

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98	Prep Date:						
Client ID:	9809034	Run ID: GC-1_980921A		SeqNo: 6730							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0421	1									J
Ethylbenzene	.0623	1									J
m,p-Xylene	.1705	2									J
o-Xylene	.1247	1									J
Toluene	.1509	1									J

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9809034

Project: 4-1325; Conoco

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9809031-02AMS		Batch ID: GC-1_980921		Test Code: SW8020A		Units: µg/L		Analysis Date 9/21/98		Prep Date:	
Client ID: 9809034		Run ID: GC-1_980921A		PQL		SPK value		SeqNo: 6731			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	191.1	5	200	0.4255	95.3%	56	128				
Ethylbenzene	211.5	5	200	0.4985	105.5%	78	107				
m,p-Xylene	414.5	10	400	2.556	103.0%	67	118				
o-Xylene	201.8	5	200	0.3315	100.8%	78	107				
Toluene	204.9	5	200	1.194	101.8%	74	116				

Sample ID: 9809031-02AMSD		Batch ID: GC-1_980921		Test Code: SW8020A		Units: µg/L		Analysis Date 9/21/98		Prep Date:	
Client ID: 9809034		Run ID: GC-1_980921A		PQL		SPK value		SeqNo: 6732			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	184.1	5	200	0.4255	91.8%	56	128	191.1	3.7%	12	
Ethylbenzene	206.4	5	200	0.4985	103.0%	78	107	211.5	2.4%	11	
m,p-Xylene	404.8	10	400	2.556	100.6%	67	118	414.5	2.4%	10	
o-Xylene	196.7	5	200	0.3315	98.2%	78	107	201.8	2.6%	14	
Toluene	199.3	5	200	1.194	99.1%	74	116	204.9	2.7%	14	

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9809034

Project: 4-1325; Conoco

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98		Prep Date:	
Client ID: 9809034		Run ID: GC-1_980921A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo: 6729
Benzene	39.51	1	40	0.0421	98.7%	56	128	
Ethylbenzene	43.12	1	40	0.0623	107.6%	78	107	
m,p-Xylene	85.18	2	80	0.1705	106.3%	67	118	
o-Xylene	42.33	1	40	0.1247	105.5%	78	107	
Toluene	41.78	1	40	0.1509	104.1%	74	116	

S 9/25/98
9/28/98

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: On Site Technologies, Limited Partnership
Work Order: 9809034
Project: 4-1325; Conoco

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98		Prep Date:	
Client ID: 9809034		Run ID: GC-1_980921A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Benzene	20.22	1	20	0	101.1%	85	115	
Ethylbenzene	22.23	1	20	0	111.2%	85	115	
m,p-Xylene	43.6	2	40	0	109.0%	85	115	
o-Xylene	21.64	1	20	0	108.2%	85	115	
Toluene	21.52	1	20	0	107.6%	85	115	
1,4-Difluorobenzene	88.91	0	100	0	88.9%	70	130	
4-Bromochlorobenzene	79.55	0	100	0	79.5%	70	130	
Fluorobenzene	85.36	0	100	0	85.4%	70	130	

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_980921	Test Code: SW8020A	Units: µg/L	Analysis Date 9/21/98		Prep Date:	
Client ID: 9809034		Run ID: GC-1_980921A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val
Benzene	19.84	1	20	0	99.2%	85	115	
Ethylbenzene	21.74	1	20	0	108.7%	85	115	
m,p-Xylene	42.67	2	40	0	106.7%	85	115	
o-Xylene	20.81	1	20	0	104.1%	85	115	
Toluene	20.98	1	20	0	104.9%	85	115	
1,4-Difluorobenzene	88.7	0	100	0	88.7%	70	130	
4-Bromochlorobenzene	69.55	0	100	0	69.6%	70	130	
Fluorobenzene	85.39	0	100	0	85.4%	70	130	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9809034

Project: 4-1325; Conoco

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV3 QC0606/07		Batch ID: GC-1_980921		Test Code: SW8020A		Units: µg/L		Analysis Date 9/21/98		Prep Date:													
Client ID: 9809034		Run ID: GC-1_980921A		PQL		SPK value		SPK Ref Val		%REC		LowLimit		HighLimit		RPD Ref Val		%RPD		RPDLimit		Qual	
Analyte		Result																					
Benzene		37.58		1		40		0		93.9%		85		115									
Ethylbenzene		41.94		1		40		0		104.8%		85		115									
m,p-Xylene		82.28		2		80		0		102.9%		85		115									
o-Xylene		40.08		1		40		0		100.2%		85		115									
Toluene		40.64		1		40		0		101.6%		85		115									
1,4-Difluorobenzene		87.81		0		100		0		87.8%		70		130									
4-Bromochlorobenzene		63.38		0		100		0		63.4%		70		130								S	
Fluorobenzene		84.05		0		100		0		84.0%		70		130									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 25-Sep-98

CLIENT: On Site Technologies, Limited Partnership
Work Order: 9809034
Project: 4-1325; Conoco
Test No: SW8020A

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9809027-01A	88.5	71	85					
9809027-02A	86	58.3 *	82.6					
9809027-03A	87.8	58.5 *	84.3					
9809027-05A	87.2	67.7 *	84.1					
9809028-01A	79	39.9 *	75.7					
9809029-01A	86.3	58 *	83.2					
9809030-01A	88.8	64 *	84.6					
9809031-01A	86.8	55.5 *	80					
9809031-02A	89.3	70.7	85.1					
9809031-02AMS	88.3	66.9 *	84.2					
9809031-02AMSD	87.7	63.8 *	83.8					
9809031-03A	82.7	40.8 *	78					
9809033-01A	83.4	44.6 *	79.4					
9809034-01A	89.9	71	85.8					
9809034-02A	83.8	61.4 *	82.2					
9809034-03A	89.3	76	85.4					
9809034-04A	89.3	69.8 *	85.3					
9809034-05A	87.6	55.7 *	83.1					
9809035-01A	78.8	36.9 *	74.3					
9809035-02A	87.3	53.2 *	82.7					
CCV1 QC0606/07	88.9	79.5	85.4					
CCV2 QC0606/07	88.7	69.6 *	85.4					
CCV3 QC0606/07	87.8	63.4 *	84					
LCS WATER	89.3	81.8	85.5					
MB1	88.3	74.6	84.8					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

ON SITE

Date:

Page _____ of _____

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

TECHNOLOGIES, LTD.

[illegible]

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

Page _____ of _____

TECHNOLOGIES, LTD.

[illegible]

Distribution:	White – On Site	Yellow – LAB	Pink – Sampler	Goldenrod – Client
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OFF: (505) 325-5667



LAB: (505) 325-1556

December 24, 1998

Larry Trujillo
On Site Technologies, Limited Partnership
612 E. Murray Drive
P.O. Box 2606
Farmington, NM 87499
TEL: (505) 325-5667
FAX (505) 327-1496

RE: 4-1325; Conoco B-Com 1

Order No.: 9812048

Dear Larry Trujillo,

On Site Technologies, LTD. received 2 samples on 12/21/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
BTEX (SW8021B)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read 'David Cox'.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 24-Dec-98

CLIENT: On Site Technologies, Limited Partnership

Project: 4-1325; Conoco B-Com 1

Lab Order: 9812048

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 24-Dec-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B-Com 1
Work Order:	9812048	Client Sample ID:	9812211430; Piezometer 1
Lab ID:	9812048-01A	Matrix:	AQUEOUS
Project:	4-1325; Conoco B-Com 1	Collection Date:	12/21/98 2:30:00 PM
		COC Record:	5637

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: DC
Benzene	ND	1		µg/L	1	12/23/98
Toluene	ND	1		µg/L	1	12/23/98
Ethylbenzene	ND	1		µg/L	1	12/23/98
m,p-Xylene	ND	2		µg/L	1	12/23/98
o-Xylene	ND	1		µg/L	1	12/23/98

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 24-Dec-98

Client:	On Site Technologies, Limited Partnership	Client Sample Info:	B-Com 1
Work Order:	9812048	Client Sample ID:	9812211440; MW-1 WSP-1
Lab ID:	9812048-02A	Matrix:	AQUEOUS
Project:	4-1325; Conoco B-Com 1	Collection Date:	12/21/98 2:40:00 PM
		COC Record:	5637

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
BTEX		SW8021B				Analyst: DC
Benzene	86	5		µg/L	5	12/23/98
Toluene	55	5		µg/L	5	12/23/98
Ethylbenzene	170	5		µg/L	5	12/23/98
m,p-Xylene	850	10		µg/L	5	12/23/98
o-Xylene	190	5		µg/L	5	12/23/98

Qualifiers:

PQL - Practical Quantitation Limit

S - Spike Recovery outside accepted recovery limits

ND - Not Detected at Practical Quantitation Limit

R - RPD outside accepted recovery limits

J - Analyte detected below Practical Quantitation Limit

E - Value above quantitation range

B - Analyte detected in the associated Method Blank

Surr: - Surrogate

1 of 1

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 24-Dec-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9812048

Project: 4-1325; Conoco B-Com 1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_981223	Test Code: SW8021B	Units: µg/L	Analysis Date 12/23/98	Prep Date:						
Client ID:	9812048	Run ID: GC-1_981223A		SeqNo: 9751							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	1									
Ethylbenzene	ND	1									
m,p-Xylene	ND	2									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	1									
Toluene	.1198	1									

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 24-Dec-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9812048

Project: 4-1325; Conoco B-Com 1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 9812044-01AMS		Batch ID: GC-1_981223		Test Code: SW8021B		Units: µg/L		Analysis Date 12/23/98		Prep Date:	
Client ID:		9812048		Run ID:		GC-1_981223A		SeqNo: 9754			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	400.5	10	400	12.5	97.0%	56	128				
Ethylbenzene	976.7	10	400	631.4	86.3%	78	107				
m,p-Xylene	1116	20	800	399.6	89.5%	67	118				
Methyl tert-Butyl Ether	374.4	10	400	0	93.6%	70	130				
o-Xylene	519	10	400	140.7	94.6%	78	107				
Toluene	982.8	10	400	626.5	89.1%	74	116				

Sample ID: 9812044-01AMSD		Batch ID: GC-1_981223		Test Code: SW8021B		Units: µg/L		Analysis Date 12/23/98		Prep Date:	
Client ID:		9812048		Run ID:		GC-1_981223A		SeqNo: 9755			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	393.5	10	400	12.5	95.3%	56	128	400.5	1.8%	12	
Ethylbenzene	957	10	400	631.4	81.4%	78	107	976.7	2.0%	11	
m,p-Xylene	1094	20	800	399.6	86.9%	67	118	1116	1.9%	10	
Methyl tert-Butyl Ether	375.2	10	400	0	93.8%	70	130	374.4	0.2%	15	
o-Xylene	511.9	10	400	140.7	92.8%	78	107	519	1.4%	14	
Toluene	963	10	400	626.5	84.1%	74	116	982.8	2.0%	14	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 24-Dec-98

CLIENT: On Site Technologies, Limited Partnership
Work Order: 9812048
Project: 4-1325; Conoco B-Com 1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS Water		Batch ID: GC-1_981223		Test Code: SW8021B		Units: µg/L		Analysis Date 12/23/98		Prep Date:	
Client ID:		9812048		Run ID:		GC-1_981223A		SeqNo: 9753			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.51	1	40	0	101.3%	56	128				
Ethylbenzene	41.06	1	40	0	102.6%	78	107				
m,p-Xylene	79.81	2	80	0	99.8%	67	118				
Methyl tert-Butyl Ether	38.65	1	40	0	96.6%	70	130				
o-Xylene	41.21	1	40	0	103.0%	78	107				
Toluene	40.64	1	40	0.1198	101.3%	74	116				

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 24-Dec-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9812048

Project: 4-1325; Conoco B-Com 1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 QC0606/07		Batch ID: GC-1_981223		Test Code: SW8021B		Units: µg/L		Analysis Date 12/23/98		Prep Date:	
Client ID:		9812048		Run ID: GC-1_981223A				SeqNo: 9752			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.13	1	20	0	105.7%	85	115				
Ethylbenzene	21.48	1	20	0	107.4%	85	115				
m,p-Xylene	41.47	2	40	0	103.7%	85	115				
Methyl tert-Butyl Ether	19.99	1	20	0	100.0%	85	115				
o-Xylene	21.57	1	20	0	107.9%	85	115				
Toluene	21.28	1	20	0	106.4%	85	115				
1,4-Difluorobenzene	88.54	0	100	0	88.5%	70	130				
4-Bromochlorobenzene	101.5	0	100	0	101.5%	70	130				
Fluorobenzene	84.95	0	100	0	84.9%	70	130				

Sample ID: CCV2 QC0606/07		Batch ID: GC-1_981223		Test Code: SW8021B		Units: µg/L		Analysis Date 12/23/98		Prep Date:	
Client ID:		9812048		Run ID:		GC-1_981223A		SeqNo: 9743			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.85	1	20	0	104.3%	85	115				
Ethylbenzene	21.19	1	20	0	105.9%	85	115				
m,p-Xylene	40.82	2	40	0	102.0%	85	115				
Methyl tert-Butyl Ether	20.29	1	20	0	101.5%	85	115				
o-Xylene	21.41	1	20	0	107.0%	85	115				
Toluene	20.98	1	20	0	104.9%	85	115				
1,4-Difluorobenzene	87.86	0	100	0	87.9%	70	130				
4-Bromochlorobenzene	101.5	0	100	0	101.5%	70	130				
Fluorobenzene	85.17	0	100	0	85.2%	70	130				

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 24-Dec-98

CLIENT: On Site Technologies, Limited Partnership
Work Order: 9812048
Project: 4-1325; Conoco B-Com 1
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

BTEX

Sample ID	14FBZ	4BCBZ	FLBZ					
9812035-01A	85	98.4	82.5					
9812037-21A	94	101	87.4					
9812044-01A	88.2	102	85.4					
9812044-01AMS	88.3	102	85					
9812044-01AMSD	88.4	102	84.9					
9812047-01A	87.6	102	85.3					
9812047-02A	88.6	103	85.1					
9812048-01A	88.7	102	85.1					
9812048-02A	86.1	98.7	87.6					
CCV1 QC0606/07	88.5	102	84.9					
CCV2 QC0606/07	87.8	101	85.2					
LCS Water	87.9	102	85					
MB1	88.3	102	85.2					

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	70-130
4BCBZ	= 4-Bromochlorobenzene	70-130
FLBZ	= Fluorobenzene	70-130

* Surrogate recovery outside acceptance limits

ON SITE

TECHNOLOGIES, LTD.

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

Date:

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