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REPORTS

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION



February 26, 2001

Conoco, Inc., San Juan/Lobo Business Unit
Attn.: Mr. Gary Ledbetter, Field SHEAR Specialist
3315 Bloomfield Hwy.
Farmington, NM 87401

RE: 2000 Annual Ground Water Report
Conoco Location: Salmon #1
Unit P, Sec. 30, T29N, R11W, NMPM, San Juan Co., NM

Project No.: 4-1377

Dear Mr. Ledbetter:

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 2000, 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 referred to as the monitoring plan), submitted to the New Mexico Oil Conservation Division on October 15, 1997.

Summary of 2000 Activities:

Ground water sampling events were conducted in March, June, September of 2000 and January 2001. Water levels were taken on all monitoring wells. DG#2 was the only monitoring well sampled. During the January, 2001, sampling event DG3 could not be located due to snow covered ground and livestock in the corral where the well was located.

Laboratory result shows that the levels of BTEX contamination are consistent with previously reported laboratory results.

Sampling:

In accordance with the monitoring plan, water levels were measured on 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. Laboratory analyses ordered followed the monitoring 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 2000, along with all laboratory QA/QC documentation and chains-of-custody, are attached with this report.

PO Box 2606
Farmington, NM 87499

505-325-5667

FAX: 505-327-1496

Summary and Conclusions:

The following conclusions are based on the 2000, ground water monitoring results and trends associated with a former drip pit at the Salmon #1 well location:

1. BTEX contamination has been below NMWQCC water quality standard for the last two (2) sampling events.
2. Groundwater gradient at this location changes seasonally and seems to be influenced by the agricultural activities associated with this location.
3. The installation of the Aboveground Storage tanks for fuel storage without a liner and secondary containment, by the current landowner, poses a significant threat to the shallow groundwater. This fuel storage is for agricultural use and not associated with former oil and gas activities of Conoco Inc. (Refer to January 2000, report).

Recommendations:

1. Ground water monitoring of DG#2 is to continue until four (4) consecutive clean sampling events have been completed.
2. Upon completion of ground water remediation by natural attenuation, prepare a Final Pit Closure Report to be submitted to NMOCD for approval.
3. Plug and abandon monitoring wells in accordance with current regulation.

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 2000. This report following 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, 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



Michael K. Lane, P.E.
Senior Engineer

On Site Technologies, Limited Partnership

Attachments: Table 1: Monitoring Well Details and Ground Water Levels Summary
Table 2: Ground Water BTEX Analytical Summary
Figure 1: Site Sketch
Figure 2, 3, 4, 5 Ground Water Potentiometric Maps
Laboratory Results, QA/QC, Chain of Custody

Acknowledgment:
CONOCO, Inc.

Dary Jedduths Shear Specialist
(Name/Title)
2/27/01
(Date)

LET/let 21377-99.doc

REFERENCES:

On Site Technologies, Ltd., May 12, 1997. Letter to Mr. Neal Goates, Senior Environmental Specialist, Conoco, Inc. Midland Division, regarding: *Corrective Action Proposal, Conoco Location, Salmon #1, Unit P, Sec. 30, T29N, R11W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., July 28, 1997. Letter to Mr. Neal Goates, Senior Environmental Specialist, Conoco, Inc. Midland Division, regarding: *Salmon #1 Excavation Summary, Conoco Location, Salmon #1, Unit P, Sec. 30, T29N, R11W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., February 1, 1998. Letter to Ms. Shirley Ebert, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: *1997 Ground Water Report, Conoco Location, Salmon #1, Unit P, Sec. 30, T29N, R11W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., February 4, 1999. Letter to Ms. Shirley Ebert, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: *1998 annual Ground Water Report, Conoco Location, Salmon #1, Unit P, Sec. 30, T29N, R11W, NMPM, San Juan Co., NM.*

On Site Technologies, Ltd., January 4, 2000. Letter to Ms. Shirley Ebert, Field SHEAR Specialist, Conoco, Inc. Mid-Continent Region, regarding: *1999 annual Ground Water Report, Conoco Location, Salmon #1, Unit P, Sec. 30, T29N, R11W, NMPM, San Juan Co., NM.*

On Site Technologies

Table 2

BTEX Analytical Summary

Salmon #1

Unit P, Sec. 30, T29N, R11W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)			
				Benzene	Toluene	Ethylbenzene	Total Xylene
07/17/96	03696G01389	UPG#1	IML	BDL	BDL	BDL	BDL
07/17/96	03696G01388			BDL	BDL	BDL	BDL
07/17/96	0396G01390	DWG#1	IML	0.7	3.3	2.8	3.7
03/13/97	13889	MW#1 NE	On Site Lab	24.4	0.4	0.3	1.5
03/26/97	14001			<0.2	<0.2	<0.2	0.3
03/13/97	13890	MW#2 N	On Site Lab.	67.8	32.9	11.5	116.6
03/20/97				40.7	11.9	8.6	74.2
03/13/97	13891	MW#3 SW	On Site Lab.	<0.2	<0.2	<0.2	0.3
03/13/97	13892	MW#4 SE	On Site Lab.	<0.2	<0.2	<0.2	0.2
09/16/97	16203	DG#1	On Site Lab.	8.1	3.6	16.3	50.6
12/22/97	17210			5.8	2.8	3.5	14.7
3/25/98	9803058-01A			9.7	4.7	4.3	12.5
6/9/98	9806031-01A			4.1	1.7	3.0	6.8
9/14/98	9809031-01A			3.5	4.2	2.3	4.9
WQCC	ACTION	LEVELS		10.0	750.0	750.0	620.0

BDL: Below Detection Levels

1. Well replaced on 3/25/98

On Site Technologies

Table 2

BTEX Analytical Summary

Salmon #1

Unit P, Sec. 30, T29N, R11W

Sample Date	Sample ID#	Monitor Well	Remarks	BTEX per EPA 8020 (ppb)				The Well
09/16/97		DG#2	On Site Lab.	Note	Sampled	Bailer In		"
12/22/97								
3/25/98	9803058-02A			330.0	5.5	4.3		5.4
6/9/98	9806031-02A			160.0	0.8	2.4		BDL
9/14/98	9809031-02A			BDL	BDL	BDL		BDL
12/30/98	9812057-01A			23.0	BDL	2.8		0.9
3/1/99	9903004-01A			160.0	BDL	7.1		21.0
6/7/99	9906020-01A			70.0	8.8	BDL		BDL
9/10/99	9909038-01A			BDL	0.5	BDL		BDL
12/13/99	9912015-01A			1.2	0.8	1.8		2.6
3/13/00	0003018-01A			57.0	0.8	2.8		4.7
6/5/00	0006011-01A			16.0	1.5	2.1		BDL
9/11/00	0009017-01A			BDL	BDL	BDL		BDL
01/23/01	0101032-01A			BDL	BDL	BDL		BDL
09/16/97	16204	DG#3	On Site Lab.	BDL	BDL	BDL		0.2
12/22/97	17211			BDL	BDL	BDL		BDL
3/25/98	9803058-03A			BDL	BDL	BDL		BDL
6/9/98	Not	sampled						
9/14/98	9809031-03A			BDL	BDL	BDL		BDL
WQCC	ACTION	LEVELS		10.0	750.0	750.0		620.0

BDL: Below Detection Levels

1. Well replaced on 3/25/98

On Site Technologies

Table 1

Ground Water Level Summary

Salmon #1

Unit P, Sec. 30, T29N, R11W

Well Number	Top of Casing Elevation* (ft)	Total Depth of Well (ft)*	Well Type	Screen Interval (ft) (BGS) *	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
DG#1	93.64	9.2	2" PVC	4.2	9/16/97	2.86	89.36
					12/22/97	3.01	90.63
					3/25/98	2.96	90.68
					6/9/98	2.75	90.89
					9/14/98	3.17	90.47
					12/30/98	3.48	89.69
					3/1/99	2.92	90.71
					6/7/99	2.71	90.92
					9/10/99	3.27	90.36
					12/13/99	2.92	90.71
					3/13/00	2.99	90.64
					6/5/00	3.01	90.62
					9/11/00	3.79	89.89
					1/23/00	3.32	88.53
DG#2	92.45	8.60	2" PVC	3.30	9/16/97	3.95	88.50
					12/22/97	*	
					3/25/98	3.80	88.65
					6/9/98	3.62	88.83
					9/14/98	3.41	89.04
					12/30/98	2.69	89.76
					3/1/99	3.69	88.76
					6/7/99	3.51	88.94
					9/10/99	4.07	88.38
					12/13/99	3.58	89.29
					3/13/00	3.56	88.89
					6/5/00	3.21	89.24
					9/11/00	4.56	87.89
					1/23/01	3.92	90.31

Temporary Bench Mark (TBM): is the south east corner of implement storage building Relative Elevation 100'

BGS - approximate measurements taken as Below Ground Surface

BTOC - Below Top of Casing

NM - Not Measured

* Bailer stuck in well unable to retrieve

Table 1

Ground Water Level Summary

Salmon #1

Unit P, Sec. 30, T29N, R11W

Well Number	Top of Casing Elevation* (ft)	Total Depth of Well (ft)*	Well Type	Screen Interval (ft) (BGS) *	Sample Date	Depth to Groundwater (ft) (BTOC)*	Relative Groundwater Elevation (ft)
DG#3	92.22	8.2	2" PVC	3.70	09/16/97	3.19	89.03
					12/22/97	2.95	89.27
					3/25/98	2.89	89.33
					6/9/98	2.95 (est.)	89.27
					9/14/98	4.16	88.06
					12/30/98	2.62	89.60
					3/1/99	2.89	89.33
					6/7/99	2.78	89.44
					9/10/99	3.41	88.81
					12/13/99	2.93	89.29
					3/13/00	2.97	89.25
					6/5/00	3.81	88.61
					9/11/00	3.99	88.23
					1/23/01	Could not locate well due	to ground conditions and livestock

Temporary Bench Mark (TBM): is the south east corner of implement storage building Relative Elevation 100'

BGS - approximate measurements taken as Below Ground Surface

BTOC - Below Top of Casing

NM - Not Measured

DG-3
89.25

DG-2
88.89

TWO ASTS
(APPROXIMATE
LOCATION)

IMPLEMENT
SHED

90
WATER LINE

DG-1
90.64

FENCE

FORMER DRIP
PIT (APPROX.
LOCATION)

UG-1
(REMOVED)

UG-2
(REMOVED)

LEGEND:

→ GROUND WATER
FLOW

90 — GROUND WATER
CONTOUR

AST ABOVEGROUND
STORAGE TANK



612 E. MURRAY DR. PH. (505) 327-1072
FARMINGTON, NM 87401 FAX (505) 327-1498

APPROVED:	DATE:
DRWN BY: MED	DATE: 2/23/01
CHK'D BY:	DATE:
PROJECT NO: 4-1377	SHEET: 1 OF 4

GROUND WATER POTENTIOMETRIC MAP
MARCH, 2000

CONOCO, INC., SALMON #1
SAN JUAN COUNTY, NEW MEXICO

41377/saa1.dwg

DG-3
88.41

DG-2
89.24

TWO ASTS
(APPROXIMATE
LOCATION)

IMPLEMENT
SHED

NTS

DG-1
90.62

FENCE

FORMER DRIP
PIT (APPROX.
LOCATION)

UG-1
(REMOVED)

UG-2
(REMOVED)

LEGEND:

→ GROUND WATER
FLOW

90 — GROUND WATER
CONTOUR

AST ABOVEGROUND
STORAGE TANK



612 E. MURRAY DR. PH. (505) 327-1072
FARMINGTON, NM 87401 FAX (505) 327-1498

APPROVED:

DRWN BY: MED

CHK'D BY:

PROJECT NO: 4-1377

DATE:

DATE: 2/23/01

DATE:

SHEET: 2 OF 4

GROUND WATER POTENTIOMETRIC MAP
JUNE, 2000

CONOCO, INC., SALMON #1
SAN JUAN COUNTY, NEW MEXICO

41377/saa2.dwg

DG-3
88.23

DG-2
87.89

88.0
TWO ASTS
(APPROXIMATE
LOCATION)

88.5
IMPLEMENT
SHED

89.0

89.5

DG-1
89.84

FENCE

FORMER DRIP
PIT (APPROX.
LOCATION)

UG-1
(REMOVED)

UG-2
(REMOVED)

LEGEND:

→ GROUND WATER
FLOW

90 — GROUND WATER
CONTOUR

AST ABOVEGROUND
STORAGE TANK



612 E. MURRAY DR. PH. (505) 327-1072
FARMINGTON, NM 87401 FAX (505) 327-1498

APPROVED:

DRWN BY: MED

CHK'D BY:

PROJECT NO: 4-1377

DATE:

DATE: 2/23/01

DATE:

SHEET: 3 OF 4

GROUND WATER POTENTIOMETRIC MAP
SEPTEMBER, 2000

CONOCO, INC., SALMON #1
SAN JUAN COUNTY, NEW MEXICO

41377/saa3.dwg

DG-3
NOT MEASURED

DG-2
88.53

TWO ASTS
(APPROXIMATE
LOCATION)

89.0

IMPLEMENT
SHED

89.5

90.0

WATER LINE

DG-1
90.31

FENCE

FORMER DRIP
PIT (APPROX.
LOCATION)

UG-1
(REMOVED)

UG-2
(REMOVED)

LEGEND:

→ GROUND WATER
FLOW

90 — GROUND WATER
CONTOUR

AST ABOVEGROUND
STORAGE TANK



612 E. MURRAY DR. PH. (505) 327-1072
FARMINGTON, NM 87401 FAX (505) 327-1496

APPROVED:

DRWN BY: MED

CHK'D BY:

PROJECT NO: 4-1377

DATE:

DATE: 2/23/01

DATE:

SHEET: 4 OF 4

GROUND WATER POTENTIOMETRIC MAP
JANUARY, 2001

CONOCO, INC., SALMON #1
SAN JUAN COUNTY, NEW MEXICO

41377/s004.dwg

OFF: (505) 325-5667



LAB: (505) 325-1556

March 17, 2000

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

RE: 4-1377; Salmon #1

Order No.: 0003018

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 3/13/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (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 be "D. Cox" or similar, written over a horizontal line.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 17-Mar-00

CLIENT: Conoco, Inc.
Project: 4-1377; Salmon #1
Lab Order: 0003018

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: 17-Mar-00

Client:	Conoco, Inc.	Client Sample Info:	Salmon #1
Work Order:	0003018	Client Sample ID:	DG-2
Lab ID:	0003018-01A	Matrix:	AQUEOUS
Project:	4-1377; Salmon #1	Collection Date:	3/13/2000 10:45:00 AM
		COC Record:	10571

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DC		
Benzene	57	0.5		µg/L	1	3/14/2000
Toluene	0.8	0.5		µg/L	1	3/14/2000
Ethylbenzene	2.8	0.5		µg/L	1	3/14/2000
m,p-Xylene	1.1	1		µg/L	1	3/14/2000
o-Xylene	3.6	0.5		µg/L	1	3/14/2000

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: 17-Mar-00

CLIENT: Conoco, Inc.
Work Order: 0003018
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_000314	Test Code: SW8021B	Units: µg/L	Analysis Date: 3/14/2000	Prep Date:
Client ID:	0003018	Run ID: GC-1_000314A		SeqNo: 25646	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.0396	0.5			J
Ethylbenzene	.065	0.5			J
m,p-Xylene	.1824	1			J
Methyl tert-Butyl Ether	ND	1			J
o-Xylene	.1453	0.5			J
Toluene	.2372	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: 17-Mar-00

CLIENT: Conoco, Inc.
Work Order: 0003018
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0003019-01AMS		Batch ID: GC-1_000314	Test Code: SW8021B	Units: µg/L	Analysis Date 3/14/2000		Prep Date:	
Client ID: 0003018		Run ID: GC-1_000314A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	235.3		2.5	200	44	95.7%	73	126
Ethylbenzene	333.9		2.5	200	140	96.9%	88	113
m,p-Xylene	1218		5	400	800	104.6%	83	112
Methyl tert-Butyl Ether	205.3		5	200	16	94.6%	81	125
o-Xylene	310.7		2.5	200	110	100.3%	93	110
Toluene	208.1		2.5	200	0	104.0%	76	126

Sample ID: 0003019-01AMSD		Batch ID: GC-1_000314	Test Code: SW8021B	Units: µg/L	Analysis Date 3/14/2000		Prep Date:	
Client ID: 0003018		Run ID: GC-1_000314A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	224.8		2.5	200	44	90.4%	73	126
Ethylbenzene	320.1		2.5	200	140	90.1%	88	113
m,p-Xylene	1168		5	400	800	92.1%	83	112
Methyl tert-Butyl Ether	200.2		5	200	16	92.1%	81	125
o-Xylene	302		2.5	200	110	96.0%	93	110
Toluene	200.2		2.5	200	0	100.1%	76	126

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: 17-Mar-00

CLIENT: Conoco, Inc.

Work Order: 0003018

Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER		Batch ID: GC-1_000314	Test Code: SW8021B	Units: µg/L	Analysis Date 3/14/2000	Prep Date:					
Client ID:	0003018	Run ID:	GC-1_000314A		SeqNo: 25645						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.31	0.5	40	0.0396	95.7%	89	112				
Ethylbenzene	39.42	0.5	40	0.065	98.4%	93	112				
m,p-Xylene	74.86	1	80	0.1824	93.3%	88	108				
Methyl tert-Butyl Ether	38.63	1	40	0	96.6%	87	115				
o-Xylene	39.41	0.5	40	0.1453	98.2%	93	112				
Toluene	39.19	0.5	40	0.2372	97.4%	92	111				

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: 17-Mar-00

CLIENT: Conoco, Inc.

Work Order: 0003018

Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_0001		Batch ID: GC-1_000314	Test Code: SW8021B	Units: µg/L		Analysis Date 3/14/2000		Prep Date:	
Client ID:		0003018	Run ID: GC-1_000314A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							RPD Limit	RPD Limit
Benzene	20.67		0.5		20	0	103.4%	85	115
Ethylbenzene	21.4		0.5		20	0	107.0%	85	115
m,p-Xylene	40.35		1		40	0	100.9%	85	115
Methyl tert-Butyl Ether	20.84		1		20	0	104.2%	85	115
o-Xylene	21.37		0.5		20	0	106.9%	85	115
Toluene	21.11		0.5		20	0	105.6%	85	115
1,4-Difluorobenzene	89.09		0		100	0	89.1%	80	105
4-Bromochlorobenzene	89.47		0		100	0	89.5%	78	108
Fluorobenzene	86.62		0		100	0	86.6%	78	108

Sample ID: CCV2 BTEX_0001		Batch ID: GC-1_000314	Test Code: SW8021B	Units: µg/L		Analysis Date 3/14/2000		Prep Date:	
Client ID:		0003018	Run ID: GC-1_000314A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							RPD Limit	RPD Limit
Benzene	19.59		0.5		20	0	98.0%	85	115
Ethylbenzene	20.23		0.5		20	0	101.2%	85	115
m,p-Xylene	38.08		1		40	0	95.2%	85	115
Methyl tert-Butyl Ether	20.17		1		20	0	100.8%	85	115
o-Xylene	20.22		0.5		20	0	101.1%	85	115
Toluene	19.94		0.5		20	0	99.7%	85	115
1,4-Difluorobenzene	88.71		0		100	0	88.7%	80	105
4-Bromochlorobenzene	90.52		0		100	0	90.5%	78	108
Fluorobenzene	86.87		0		100	0	86.9%	78	108

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: 0003018

Project: 4-1377; Salmon #1

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_0001		Batch ID: GC-1_000314		Test Code: SW8021B		Units: µg/L		Analysis Date 3/14/2000		Prep Date:	
Client ID:		0003018		Run ID: GC-1_000314A				SeqNo: 25644			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.76	0.5	40	0	96.9%	85	115				
Ethylbenzene	39.61	0.5	40	0	99.0%	85	115				
m,p-Xylene	74.89	1	80	0	93.6%	85	115				
Methyl tert-Butyl Ether	38.99	1	40	0	97.5%	85	115				
o-Xylene	39.58	0.5	40	0	99.0%	85	115				
Toluene	39.39	0.5	40	0	98.5%	85	115				
1,4-Difluorobenzene	88.62	0	100	0	88.6%	80	105				
4-Bromochlorobenzene	89.92	0	100	0	89.9%	78	108				
Fluorobenzene	86.49	0	100	0	86.5%	78	108				

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: 17-Mar-00

CLIENT: Conoco, Inc.
Work Order: 0003018
Project: 4-1377; Salmon #1
Test No: SW8021B

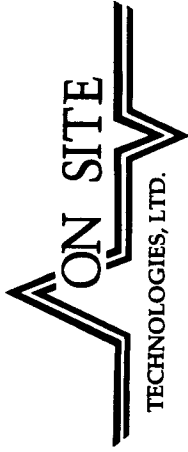
QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0003009-01A	89.8	90.3	87.4
0003009-02A	85.6	83.5	87.2
0003009-03A	90.1	89.4	87.6
0003009-04A	89.6	91.4	87.6
0003009-05A	89.9	90	87.5
0003009-06A	89.4	90.4	87.9
0003010-01A	89.4	90.2	87.2
0003010-02A	89.3	90.3	87.4
0003010-03A	89.2	89.8	87.4
0003012-03A	90.1	89.9	87.3
0003012-04A	88.8	88.6	87.3
0003012-05A	86.8	89	85.4
0003012-06A	87	88.9	85.4
0003013-07A	89.8	90	87
0003016-01A	88.1	89.9	86.8
0003017-01A	90.2	91.1	87.3
0003018-01A	86.6	88.6	84.2
0003019-01A	90.2	90.6	91.5
0003019-01AMS	85.9	88.6	88.4
0003019-01AMSD	86.2	89.7	88.7
0003020-01A	86.9	87.8	84.9
CCV1 BTEX_00010	89.1	89.5	86.6
CCV2 BTEX_00010	88.7	90.5	86.9
CCV3 BTEX_00010	88.6	89.9	86.5
LCS WATER	88.1	90.2	85.8
MB1	89.2	89.6	87

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-105
4BCBZ	= 4-Bromochlorobenzene	78-108
FLBZ	= Fluorobenzene	78-108

* Surrogate recovery outside acceptance limits



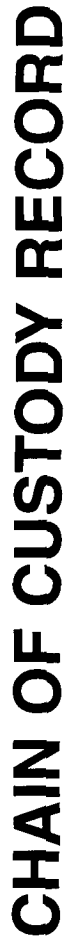
CHAIN OF CUSTODY RECORD

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 2/13/00

Page: 1 of 1

Purchase Order No.:		Project No. 24-277		REPORT RESULTS TO		Name: Larry Taylor		Title:							
SEND INVOICE TO		Name: Larry Taylor		Company: Company		Mailing Address:		Company:							
Address:		Dept.:		City, State, Zip:		Telephone No.:		Telefax No.:							
PROJECT LOCATION: Cat with I				ANALYSIS REQUESTED											
SAMPLER'S SIGNATURE:				LAB ID											
SAMPLE IDENTIFICATION															
DATE										TIME		MATRIX		PRES.	
Relinquished by: [Signature]				Date/Time: 2/13/00		Received by: [Signature]		Date/Time: 2/13/00							
Relinquished by:				Date/Time:		Received by:		Date/Time:							
Relinquished by:				Date/Time:		Received by:		Date/Time:							
Method of Shipment:						Rush		24-48 Hours							
Authorized by: _____ (Client Signature <u>Must</u> Accompany Request)						10 Working Days		By Date							
				Special Instructions / Remarks:											



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Page: _____ of _____

Distribution:	White - On Site	Yellow - LAB	Pink - Sampler	Goldenrod - Client
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OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

June 13, 2000

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

RE: 4-1377; Salmon #1

Order No.: 0006011

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 6/5/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (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', is written over a horizontal line.

David Cox

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD.

Date: 13-Jun-00

CLIENT: On Site Technologies Limited
Project: 4-1377; Salmon #1
Lab Order: 0006011

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.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 13-Jun-00

Client:	On Site Technologies Limited	Client Sample Info:	Salmon #1
Work Order:	0006011	Client Sample ID:	DG #2
Lab ID:	0006011-01A	Matrix:	AQUEOUS
Project:	4-1377; Salmon #1	Collection Date:	6/5/2000 12:15:00 PM
		COC Record:	10729

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	16	0.5		µg/L	1	6/9/2000
Toluene	1.5	0.5		µg/L	1	6/9/2000
Ethylbenzene	2.1	0.5		µg/L	1	6/9/2000
m,p-Xylene	ND	1		µg/L	1	6/9/2000
o-Xylene	ND	0.5		µg/L	1	6/9/2000

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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 13-Jun-00

CLIENT: On Site Technologies Limited
Work Order: 0006011
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/7/2000	Prep Date:
Client ID:	0006011	Run ID: GC-1_000609A		SeqNo: 28420	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.0382	0.5			J
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			
Toluene	.0696	0.5			J

Sample ID: MB1	Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/9/2000	Prep Date:
Client ID:	0006011	Run ID: GC-1_000609A		SeqNo: 28421	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	.0452	0.5			J
Ethylbenzene	.0537	0.5			J
m,p-Xylene	ND	1			
o-Xylene	ND	0.5			
Toluene	.0762	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.

CLIENT: On Site Technologies Limited
Work Order: 0006011
Project: 4-1377; Salmon #1

Date: 13-Jun-00

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0006005-11AMS		Batch ID: GC-1_000609		Test Code: SW8021B		Units: µg/L		Analysis Date: 6/9/2000		Prep Date:	
Client ID:		0006011		Run ID: GC-1_000609A				SeqNo: 28422			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	402	5	400	0.423	100.4%	73	126				
Ethylbenzene	399.2	5	400	1.056	99.5%	88	113				
m,p-Xylene	789.7	10	800	0	98.7%	83	112				
Methyl tert-Butyl Ether	795.7	10	400	406.2	97.4%	81	125				
o-Xylene	401.8	5	400	0	100.5%	93	110				
Toluene	404.1	5	400	1.459	100.7%	76	126				

Sample ID: 0006005-11AMSD		Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/9/2000			Prep Date:			
Client ID:		0006011	Run ID: GC-1_000609A		SeqNo: 28423						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	392.2	5	400	0.423	97.9%	73	126	402	2.5%	6	
Ethylbenzene	387.2	5	400	1.056	96.5%	88	113	399.2	3.1%	5	
m,p-Xylene	769	10	800	0	96.1%	83	112	789.7	2.6%	7	
Methyl tert-Butyl Ether	795.7	10	400	406.2	97.4%	81	125	795.7	0.0%	9	
o-Xylene	392	5	400	0	98.0%	93	110	401.8	2.5%	6	
Toluene	393.7	5	400	1.459	98.1%	76	126	404.1	2.6%	6	

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.

CLIENT: On Site Technologies Limited
Work Order: 0006011
Project: 4-1377; Salmon #1

Date: 13-Jun-00

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/9/2000	Prep Date:
Client ID:	0006011	Run ID: GC-1_000609A		SeqNo: 28418	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	41.36	0.5	40	0.0382	103.3% 89 112
Ethylbenzene	41.94	0.5	40	0	104.9% 93 112
m,p-Xylene	79.07	1	80	0	98.8% 88 108
Methyl tert-Butyl Ether	40.94	1	40	0	102.4% 87 115
o-Xylene	41.7	0.5	40	0	104.3% 93 112
Toluene	41.72	0.5	40	0.0696	104.1% 92 111

Sample ID: LCS WATER	Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/9/2000	Prep Date:
Client ID:	0006011	Run ID: GC-1_000609A		SeqNo: 28419	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	41.01	0.5	40	0.0452	102.4% 89 112
Ethylbenzene	41.12	0.5	40	0.0537	102.7% 93 112
m,p-Xylene	81.2	1	80	0	101.5% 88 108
Methyl tert-Butyl Ether	36.59	1	40	0	91.5% 87 115
o-Xylene	41.27	0.5	40	0	103.2% 93 112
Toluene	41.13	0.5	40	0.0762	102.6% 92 111

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.

CLIENT: On Site Technologies Limited
Work Order: 0006011
Project: 4-1377; Salmon #1

Date: 13-Jun-00

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_0004		Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L		Analysis Date: 6/9/2000		Prep Date:			
Client ID:		0006011	Run ID:	GC-1_000609A		SeqNo: 28414					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.38	0.5	20	0	101.9%	85	115				
Ethylbenzene	20.94	0.5	20	0	104.7%	85	115				
m,p-Xylene	39.2	1	40	0	98.0%	85	115				
Methyl tert-Butyl Ether	19.75	1	20	0	98.7%	85	115				
o-Xylene	20.78	0.5	20	0	103.9%	85	115				
Toluene	20.49	0.5	20	0	102.5%	85	115				
1,4-Difluorobenzene	89.52	0	100	0	89.5%	80	105				
4-Bromochlorobenzene	88.03	0	100	0	88.0%	78	108				
Fluorobenzene	89.11	0	100	0	89.1%	78	108				

Sample ID: CCV1 BTEX_0004		Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/9/2000		Prep Date:				
Client ID:		0006011	Run ID:	GC-1_000609A		SeqNo: 28415					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.49	0.5	40	0	101.2%	85	115				
Ethylbenzene	40.7	0.5	40	0	101.7%	85	115				
m,p-Xylene	80.29	1	80	0	100.4%	85	115				
Methyl tert-Butyl Ether	37.36	1	40	0	93.4%	85	115				
o-Xylene	40.97	0.5	40	0	102.4%	85	115				
Toluene	40.72	0.5	40	0	101.8%	85	115				
1,4-Difluorobenzene	90.94	0	100	0	90.9%	80	105				
4-Bromochlorobenzene	88.49	0	100	0	88.5%	78	108				
Fluorobenzene	90.86	0	100	0	90.9%	78	108				

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
Work Order: 0006011
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV2 BTEX_0004		Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L	Analysis Date: 6/9/2000				Prep Date:		
Client ID:		0006011	Run ID: GC-1_000609A		SeqNo: 28416						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.48	0.5	20	0	97.4%	85	115				
Ethylbenzene	19.41	0.5	20	0	97.1%	85	115				
m,p-Xylene	38.05	1	40	0	95.1%	85	115				
Methyl tert-Butyl Ether	19.34	1	20	0	96.7%	85	115				
o-Xylene	19.73	0.5	20	0	98.6%	85	115				
Toluene	19.5	0.5	20	0	97.5%	85	115				
1,4-Difluorobenzene	90.97	0	100	0	91.0%	80	105				
4-Bromochlorobenzene	88.56	0	100	0	88.6%	78	108				
Fluorobenzene	91.78	0	100	0	91.8%	78	108				

Sample ID: CCV3 BTEX_0004		Batch ID: GC-1_000609	Test Code: SW8021B	Units: µg/L		Analysis Date: 6/9/2000				Prep Date:	
Client ID:		0006011	Run ID:	GC-1_000609A		SeqNo: 28417					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.88	0.5	40	0	99.7%	85	115				
Ethylbenzene	39.16	0.5	40	0	97.9%	85	115				
m,p-Xylene	77.51	1	80	0	96.9%	85	115				
Methyl tert-Butyl Ether	40.58	1	40	0	101.5%	85	115				
o-Xylene	39.83	0.5	40	0	99.6%	85	115				
Toluene	39.73	0.5	40	0	99.3%	85	115				
1,4-Difluorobenzene	90.96	0	100	0	91.0%	80	105				
4-Bromochlorobenzene	86.32	0	100	0	86.3%	78	108				
Fluorobenzene	91.76	0	100	0	91.8%	78	108				

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: 13-Jun-00

CLIENT: On Site Technologies Limited

Work Order: 0006011

Project: 4-1377; Salmon #1

Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0006002-07A	102	87.6	93
0006004-04A	91.4	90.1	91.7
0006005-03A	91.1	87.9	91.6
0006005-04A	68.6 *	90.4	34 *
0006005-05A	91.8	86.7	92
0006005-06A	92.4	86.6	92.6
0006005-07A	91.2	86.8	92.2
0006005-08A	91.8	86.8	92.6
0006005-09A	90.2	86.6	91.2
0006005-10A	90.4	85.2	91.2
0006005-11A	91.4	87.2	97.6
0006005-11AMS	90	88.2	96
0006005-11AMSD	90.4	88.6	96.4
0006005-12A	90.6	85.6	91.8
0006005-13A	79.4 *	90.9	33.3 *
0006005-14A	90	90.1	34.1 *
0006008-01A	89.4	85.7	90.7
0006009-01A	92.5	86.4	92.8
0006009-02A	91.2	86.5	92.5
0006010-01A	90.2	86	91.9
0006011-01A	89.5	85.8	91.2
CCV1 BTEX_00040	90.9	88.5	90.8
CCV2 BTEX_00040	91	88.6	91.8
CCV3 BTEX_00040	91	86.3	91.8
LCS WATER	91.1	89.6	91.1
MB1	90.8	88.4	91.1

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	80-105
4BCBZ	= 4-Bromochlorobenzene	78-108
FLBZ	= Fluorobenzene	78-108

* Surrogate recovery outside acceptance limits



612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date:

Page:

[illegible]

Distribution:	White - On Site	Yellow - LAB	Pink - Sampler	Goldenrod - Client
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OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

September 25, 2000

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

RE: Salmon #1; 4-1377

Order No.: 0009017

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 9/11/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (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 'D Cox', is written over the signature line.

David Cox

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD.

Date: 25-Sep-00

CLIENT: Conoco, Inc.
Project: Salmon #1; 4-1377
Lab Order: 0009017

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.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 25-Sep-00

Client:	Conoco, Inc.	Client Sample Info:	Salmon #1
Work Order:	0009017	Client Sample ID:	DG-2
Lab ID:	0009017-01A	Matrix:	AQUEOUS
Project:	Salmon #1; 4-1377	Collection Date:	9/11/2000 7:45:00 AM
		COC Record:	10915

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B				Analyst: DM
Benzene	ND	0.5		µg/L	1	9/18/2000
Toluene	ND	0.5		µg/L	1	9/18/2000
Ethylbenzene	ND	0.5		µg/L	1	9/18/2000
m,p-Xylene	ND	1		µg/L	1	9/18/2000
o-Xylene	ND	0.5		µg/L	1	9/18/2000

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

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 25-Sep-00

CLIENT: Conoco, Inc.

Work Order: 0009017

Project: Salmon #1; 4-1377

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_000918	Test Code: SW8021B	Units: µg/L	Analysis Date 9/18/2000	Prep Date:
Client ID:	0009017	Run ID: GC-1_000918A		SeqNo: 31258	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	ND	0.5			
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			
Toluene	.0826	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-Sep-00

CLIENT: Conoco, Inc.

Work Order: 0009017

Project: Salmon #1; 4-1377

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0009019-04AMS		Batch ID: GC-1_000918		Test Code: SW8021B		Units: µg/L		Analysis Date 9/18/2000		Prep Date:	
Client ID:		0009017		Run ID: GC-1_000918A				SeqNo: 31259			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	437	5	400	46.21	97.7%	88	112				
Ethylbenzene	425.2	5	400	19.04	101.6%	86	113				
m,p-Xylene	1386	10	800	604.1	97.7%	85	108				
Methyl tert-Butyl Ether	430.5	10	400	0	107.6%	86	117				
o-Xylene	439.2	5	400	1.64	109.4%	92	110				
Toluene	414.6	5	400	11.6	100.8%	88	116				

Sample ID: 0009019-04AMS		Batch ID: GC-1_000918		Test Code: SW8021B		Units: µg/L		Analysis Date 9/18/2000		Prep Date:	
Client ID:		0009017		Run ID: GC-1_000918A				SeqNo: 31260			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	433.4	5	400	46.21	96.8%	88	112	437	0.8%	6	
Ethylbenzene	422.3	5	400	19.04	100.8%	86	113	425.2	0.7%	6	
m,p-Xylene	1380	10	800	604.1	97.0%	85	108	1386	0.4%	6	
Methyl tert-Butyl Ether	434.2	10	400	0	108.6%	86	117	430.5	0.9%	7	
o-Xylene	426.5	5	400	1.64	106.2%	92	110	439.2	2.9%	6	
Toluene	410.6	5	400	11.6	99.7%	88	116	414.6	1.0%	6	

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-00

CLIENT: Conoco, Inc.

Work Order: 0009017

Project: Salmon #1; 4-1377

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_000918	Test Code: SW8021B	Units: µg/L	Analysis Date 9/18/2000	Prep Date:						
Client ID:	0009017	Run ID: GC-1_000918A		SeqNo: 31257							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.98	0.5	40	0	99.9%	96	111				
Ethylbenzene	40.95	0.5	40	0	102.4%	96	111				
m,p-Xylene	80.24	1	80	0	100.3%	92	105				
Methyl tert-Butyl Ether	42.47	1	40	0	106.2%	93	113				
o-Xylene	40.15	0.5	40	0	100.4%	97	110				
Toluene	39.83	0.5	40	0.0826	99.4%	97	109				

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-00

CLIENT: Conoco, Inc.

Work Order: 0009017

Project: Salmon #1; 4-1377

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_0007		Batch ID: GC-1_000918	Test Code: SW8021B	Units: µg/L		Analysis Date 9/18/2000		Prep Date:				
Client ID: 0009017		Run ID: GC-1_000918A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Benzene	21.06		0.5	20	0	105.3%	85	115				
Ethylbenzene	21.53		0.5	20	0	107.7%	85	115				
m,p-Xylene	42.36		1	40	0	105.9%	85	115				
Methyl tert-Butyl Ether	22.51		1	20	0	112.5%	85	115				
o-Xylene	21.37		0.5	20	0	106.9%	85	115				
Toluene	20.98		0.5	20	0	104.9%	85	115				
1,4-Difluorobenzene	86.05		0	100	0	86.0%	79	101				
4-Bromochlorobenzene	91.15		0	100	0	91.2%	78	99				
Fluorobenzene	84.39		0	100	0	84.4%	76	103				

Sample ID: CCV2 BTEX_0007		Batch ID: GC-1_000918	Test Code: SW8021B	Units: µg/L		Analysis Date 9/18/2000		Prep Date:				
Client ID: 0009017		Run ID: GC-1_000918A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Analyte	Result											
Benzene	20.19		0.5	20	0	100.9%	85	115				
Ethylbenzene	20.48		0.5	20	0	102.4%	85	115				
m,p-Xylene	40.61		1	40	0	101.5%	85	115				
Methyl tert-Butyl Ether	22.19		1	20	0	111.0%	85	115				
o-Xylene	20.32		0.5	20	0	101.6%	85	115				
Toluene	20.12		0.5	20	0	100.6%	85	115				
1,4-Difluorobenzene	85.97		0	100	0	86.0%	79	101				
4-Bromochlorobenzene	89.68		0	100	0	89.7%	78	99				
Fluorobenzene	84.58		0	100	0	84.6%	76	103				

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: 0009017
Project: Salmon #1; 4-1377

QC SUMMARY REPORT
 Continuing Calibration Verification Standard

Sample ID: CCV3 BTEX_0007		Batch ID: GC-1_000918	Test Code: SW8021B	Units: µg/L	Analysis Date 9/18/2000			Prep Date:			
Client ID:		0009017	Run ID: GC-1_000918A		SeqNo: 31256						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.84	0.5	40	0	97.1%	85	115				
Ethylbenzene	39.44	0.5	40	0	98.6%	85	115				
m,p-Xylene	77.84	1	80	0	97.3%	85	115				
Methyl tert-Butyl Ether	42.93	1	40	0	107.3%	85	115				
o-Xylene	38.89	0.5	40	0	97.2%	85	115				
Toluene	38.87	0.5	40	0	97.2%	85	115				
1,4-Difluorobenzene	86.1	0	100	0	86.1%	79	101				
4-Bromochlorobenzene	90	0	100	0	90.0%	78	99				
Fluorobenzene	84.12	0	100	0	84.1%	76	103				

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-00

CLIENT: Conoco, Inc.
Work Order: 0009017
Project: Salmon #1; 4-1377
Test No: SW8021B

QC SUMMARY REPORT SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0009016-03A	83.8	88	86.2
0009017-01A	85.9	88.3	84.3
0009019-01A	86.3	94.2	84.8
0009019-03A	85.8	90.1	85.6
0009019-04A	85.6	89.6	84.4
0009019-04AMS	84.6	91.1	83
0009019-04AMSD	85.6	91.2	84.4
0009021-01A	86.3	91.4	84.8
0009021-02A	87	89.4	84.8
0009021-03A	86.3	91	85.3
0009021-04A	87.1	89.8	85.1
0009021-05A	86.4	89.7	85.3
0009021-06A	86.3	90.8	84.2
0009021-07A	85.8	89.2	84.1
0009024-01A	85.7	89	84.4
0009024-03A	85	89.2	83
0009026-01A	86.4	91.9	84.8
0009026-02A	85.4	90.2	83.2
0009026-03A	87.5	88.3	85.2
CCV1 BTEX_00070	86	91.2	84.4
CCV2 BTEX_00070	86	89.7	84.6
CCV3 BTEX_00070	86.1	90	84.1
LCS WATER	86.4	91.8	83.6
MB1	86.8	90.8	84.7

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	79-101
4BCBZ	= 4-Bromochlorobenzene	78-99
FLBZ	= Fluorobenzene	76-103

* Surrogate recovery outside acceptance limits



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LAB: (505) 325-5667 • FAX: (505) 327-1496

Page:

Page: 1 of 1

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

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

January 31, 2001

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

RE: 4-1377; Salmon #1

Order No.: 0101032

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 1/23/2001 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
Aromatic Volatiles by GC/PID (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 be 'D. Cox'.

David Cox

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

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OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD.

Date: 31-Jan-01

CLIENT: On Site Technologies Limited
Project: 4-1377; Salmon #1
Lab Order: 0101032

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.

Any quality control and/or data qualifiers associated with this laboratory order will be flagged in the analytical result page(s) or the quality control summary report(s).

OFF: (505) 325-5667
FAX: (505) 327-1496



LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: 31-Jan-01

Client:	On Site Technologies Limited	Client Sample Info:	Salmon #1
Work Order:	0101032	Client Sample ID:	DG-#2
Lab ID:	0101032-01A	Matrix:	AQUEOUS
Project:	4-1377; Salmon #1	Collection Date:	1/23/2001 10:50:00 AM
		COC Record:	11101

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DM		
Benzene	ND	0.5		µg/L	1	1/29/2001
Toluene	ND	0.5		µg/L	1	1/29/2001
Ethylbenzene	ND	0.5		µg/L	1	1/29/2001
m,p-Xylene	ND	1		µg/L	1	1/29/2001
o-Xylene	ND	0.5		µg/L	1	1/29/2001

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

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EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

On Site Technologies, LTD.

Date: 31-Jan-01

CLIENT: On Site Technologies Limited
Work Order: 0101032
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Method Blank

Sample ID: MB1	Batch ID: GC-1_010129	Test Code: SW8021B	Units: µg/L	Analysis Date: 1/29/2001	Prep Date:
Client ID:	0101032	Run ID: GC-1_010129A		SeqNo: 34779	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	ND	0.5			
Ethylbenzene	ND	0.5			
m,p-Xylene	ND	1			
Methyl tert-Butyl Ether	ND	1			
o-Xylene	ND	0.5			
Toluene	ND	0.5			

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: 31-Jan-01

CLIENT: On Site Technologies Limited
Work Order: 0101032
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: 0101031-01AMS		Batch ID: GC-1_010129	Test Code: SW8021B	Units: µg/L	Analysis Date 1/29/2001		Prep Date:	
Client ID: 0101032		Run ID: GC-1_010129A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	200		2.5	200	24	88.0%	84	111
Ethylbenzene	217.3		2.5	200	31	93.2%	84	111
m,p-Xylene	642.2		5	400	270	93.1%	84	108
Methyl tert-Butyl Ether	194		5	200	30	82.0%	80	117
o-Xylene	232.5		2.5	200	42	95.2%	89	107
Toluene	199.6		2.5	200	0	99.8%	90	107

Sample ID: 0101031-01AMSD		Batch ID: GC-1_010129	Test Code: SW8021B	Units: µg/L	Analysis Date 1/29/2001		Prep Date:	
Client ID: 0101032		Run ID: GC-1_010129A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit
Analyte	Result							
Benzene	213.6		2.5	200	24	94.8%	84	111
Ethylbenzene	232.6		2.5	200	31	100.8%	84	111
m,p-Xylene	686.1		5	400	270	104.0%	84	108
Methyl tert-Butyl Ether	192.7		5	200	30	81.4%	80	117
o-Xylene	245.5		2.5	200	42	101.8%	89	107
Toluene	213.3		2.5	200	0	106.7%	90	107

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: 31-Jan-01

CLIENT: On Site Technologies Limited
Work Order: 0101032
Project: 4-1377; Salmon #1

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: LCS WATER	Batch ID: GC-1_010129	Test Code: SW8021B	Units: µg/L	Analysis Date 1/29/2001		Prep Date:					
Client ID:	0101032	Run ID:	GC-1_010129A	SeqNo:	34778						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.81	0.5	40	0	99.5%	92	109				
Ethylbenzene	39.57	0.5	40	0	98.9%	92	112				
m,p-Xylene	78.34	1	80	0	97.9%	91	108				
Methyl tert-Butyl Ether	36.59	1	40	0	91.5%	89	116				
o-Xylene	39.72	0.5	40	0	99.3%	93	109				
Toluene	39.64	0.5	40	0	99.1%	93	108				

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.

CLIENT: On Site Technologies Limited
Work Order: 0101032
Project: 4-1377; Salmon #1

Date: 31-Jan-01

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: CCV1 BTEX_0012		Batch ID: GC-1_010129	Test Code: SW8021B	Units: µg/L		Analysis Date 1/29/2001		Prep Date:			
Client ID:		Run ID:	GC-1_010129A				SeqNo:	34776			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.08	0.5	20	0	100.4%	85	115				
Ethylbenzene	20.08	0.5	20	0	100.4%	85	115				
m,p-Xylene	39.87	1	40	0	99.7%	85	115				
Methyl tert-Butyl Ether	18.37	1	20	0	91.9%	85	115				
o-Xylene	20.14	0.5	20	0	100.7%	85	115				
Toluene	19.9	0.5	20	0	99.5%	85	115				
1,4-Difluorobenzene	75.21	0	80	0	94.0%	85	103				
4-Bromochlorobenzene	80.44	0	80	0	100.6%	93	108				
Fluorobenzene	76.86	0	80	0	96.1%	88	103				

Sample ID: CCV2 BTEX_0012		Batch ID: GC-1_010129	Test Code: SW8021B	Units: µg/L		Analysis Date 1/29/2001				Prep Date:				
Client ID:		Run ID:	GC-1_010129A	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	SeqNo:	34777	%RPD	RPDLimit	Qual
Analyte	Result													
Benzene	20.05			0.5	20	0	100.2%	85	115					
Ethylbenzene	20.14			0.5	20	0	100.7%	85	115					
m,p-Xylene	40.04			1	40	0	100.1%	85	115					
Methyl tert-Butyl Ether	19.1			1	20	0	95.5%	85	115					
o-Xylene	20.34			0.5	20	0	101.7%	85	115					
Toluene	20.01			0.5	20	0	100.1%	85	115					
1,4-Difluorobenzene	75.61			0	80	0	94.5%	85	103					
4-Bromochlorobenzene	79.1			0	80	0	98.9%	93	108					
Fluorobenzene	76.24			0	80	0	95.3%	88	103					

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: 31-Jan-01

CLIENT: On Site Technologies Limited
Work Order: 0101032
Project: 4-1377; Salmon #1
Test No: SW8021B

**QC SUMMARY REPORT
SURROGATE RECOVERIES**

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0101024-05A	94.4	96.6	96.2
0101024-10A	94.3	101	96.4
0101024-12A	93.9	100	96.2
0101024-13A	94.4	100	95.9
0101029-01A	94.3	98.2	95.8
0101030-01A	94.2	98.1	95
0101031-01A	91.1	96.2	95.5
0101031-01AMS	87.8	98.7	90.1
0101031-01AMSD	90.3	102	93.2
0101032-01A	94.8	100	95.9
0101036-01A	95.3	103	96.9
0101036-02A	93.9	100	96.8
CCV1 BTEX_00121	94	100	96.1
CCV2 BTEX_00121	94.5	98.9	95.3
LCS WATER	94.5	101	95.7
MB1	94.4	100	97.1

Acronym	Surrogate	QC Limits
14FBZ	= 1,4-Difluorobenzene	85-103
4BCBZ	= 4-Bromochlorobenzene	93-108
FLBZ	= Fluorobenzene	88-103

* Surrogate recovery outside acceptance limits



CHAIN OF CUSTODY RECORD

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: Jan 23, 2001

Page: 1 of 1

Purchase Order No.:		Project No. <u>41377</u>		Name <u>Larry Taylor</u>		Title	
SEND INVOICE TO		Name <u>Larry Taylor</u>		Company <u>Conoco Inc.</u>		Company	
Address		Dept.		Mailing Address		Mailing Address	
City, State, Zip		City, State, Zip		City, State, Zip		City, State, Zip	
Telephone No.		Telephone No.		Telephone No.		Telephone No.	
Telex No.		Telex No.		Telex No.		Telex No.	
PROJECT LOCATION: <u>Barrow #1</u>				ANALYSIS REQUESTED			
SAMPLER'S SIGNATURE:				LAB ID			
SAMPLE IDENTIFICATION				Containers			
DATE		TIME		MATRIX		PRES.	
1/23/01		14:00		H2O		H2O	
Relinquished by: <u>[Signature]</u>		Date/Time: <u>1/23/01 12:05</u>		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Relinquished by:		Date/Time		Received by:		Date/Time	
Method of Shipment:		Rush		24-48 Hours		10 Working Days	
By Date		By Date		By Date		By Date	
Special Instructions / Remarks:				Special Instructions / Remarks:			
Authorized by: _____ Date _____				Authorized by: _____ Date _____			
(Client Signature <u>Must</u> Accompany Request)				(Client Signature <u>Must</u> Accompany Request)			