

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

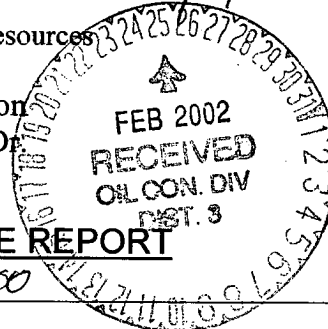
State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Approved Bill 01504  
1/6/03

Submit 1 copy to  
appropriate  
District Office  
and 1 copy to  
the Santa Fe Office

(Revised 3/9/94)



**PIT REMEDIATION AND CLOSURE REPORT**

30-045-0780

Operator: Conoco Inc

Telephone: (505) 327-9557

Address: 3315 Bloomfield Highway, Farmington, NM 87401

Well Name: Salmon 1

Location: Unit or Qtr/Qtr Sec: Unit P SE 1/4 Sec 30 T 29N R 11W County San Juan, NM

Pit Type: Separator \_\_\_\_\_ Dehydrator \_\_\_\_\_ Other Line Drip  
Land Type: BLM \_\_\_\_\_, State \_\_\_\_\_, Fee \_\_\_\_\_ Other Private

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

Reference: wellhead X, other \_\_\_\_\_

Footage from reference: Approximately 42'

Direction from reference: Approximately 15 Degrees East of North

Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.)	Less than 50 feet	Yes	(20 points)
	50 feet to 99 feet		(10 points)
	Greater than 100 feet		( 0 points) <u>20</u>

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	( 0 points) <u>0</u>

Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)	Less than 200 feet	(20 points)
	200 feet to 1000 feet	(10 points)
	Greater than 1000 feet	Yes ( 0 points) <u>0</u>

RANKING SCORE (TOTAL POINTS): 20

Date Remediation Started: 1994 Date completed 1/18/02

Remediation Method: Excavation ☒ Approx. cubic yards 496 +

(Check all appropriate sections.)

Landfarmed \_\_\_\_\_

In situ Bioremediation \_\_\_\_\_

Other Disposed at Envirotech OCD landfarm

Remediation Location: Onsite \_\_\_\_\_ Offsite: ☒

(i.e. landfarmed onsite, name and location of offsite facility)

Crouch Mesa Landfarm #2 Unit 5

General Description of Remedial Action: Conoco treated and excavated soils to ground water in the immediate area of an unlined drip pit. During June 18, 19, and 20, 1997, On Site excavated approximately 496 cubic yards of contaminated soil from the site, and disposed of it properly. The excavation was backfilled with clean material. Monitoring wells were installed to monitor ground water quality. Refer to Conoco Annual Ground Water Report 1998, 1999, 2000, and 2001 for ground water sample results

Ground Water Encountered: No \_\_\_\_\_ Yes: ☒ Depth: Approximately four feet.

Final Pit:

Sample location: Refer to Salmon #1 Excavation Summary (On Site 7/25/97).

Closure Sampling:

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

Sample depth \_\_\_\_\_

Sample Date \_\_\_\_\_ Sample time \_\_\_\_\_

Sample Results

Benzene(ppm) \_\_\_\_\_

Total BTEX(ppm) \_\_\_\_\_

Field headspace(ppm) \_\_\_\_\_

TPH \_\_\_\_\_

Ground Water Sample: Yes ☒ No \_\_\_\_\_ (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date: 2/21/02

Signature

*Gary Ledbetter*

Printed Name: Gary Ledbetter  
and Title: Field SHEAR Specialist



February 18, 2002

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

RE: 2001 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 2001, 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 2001 Activities:**

Ground water sampling events were conducted in March, June, September and December of 2001 and January 2002. Water levels were taken on all monitoring wells. DG#2 was the only monitoring well sampled during 2001. During the January 2002, sampling event DG 1, 2, and 3 were sampled for closure.

Laboratory result shows that the levels of BTEX contamination have dropped in DG #2 below the New Mexico Water Quality Control Commission (NMWQCC) standards. DG#1 and DG#3 remain Below NMWQCC standards.

**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 was followed. Laboratory analyses ordered followed the Conoco 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 2001, and the sampling for closure (1/02) 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 2001, 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 six (6) sampling events.

### ***Recommendations:***

1. Ground water remediation by natural attenuation appears to be complete. A Final Pit Closure Report to be submitted to NMOCD for approval is attached to this report.
2. After approval by NMOCD, plug and abandon monitoring wells in accordance with current regulation.

### ***Limitations and Closure:***

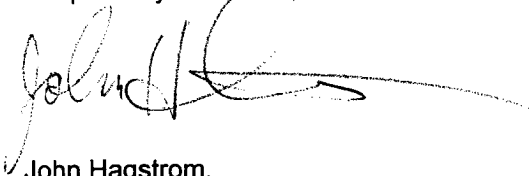
This annual ground water report documents the results of ground water monitoring for the referenced Conoco well location during the calendar year 2001. This report follows the Comprehensive Ground Water Remediation and Long-Term Monitoring Plan for Conoco Locations in the San Juan Basin, New Mexico, 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, 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.

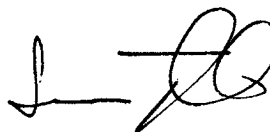
If there are any questions regarding this status report, please contact either John Hagstrom or Larry Trujillo at On Site Technologies, (505) 325-5667. Thank you for your consideration.

Respectfully submitted,



John Hagstrom.  
Environmental technician

Reviewed by;



Lawrence "Larry" Trujillo, CHMM  
Environmental Specialist

### ***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

DG-3

DG-2

TWO ASTS  
(APPROXIMATE  
LOCATION)

IMPLEMENT  
SHED

WATER LINE

DG-1

FENCE

NTS

FORMER DRIP  
PIT (APPROX.  
LOCATION)

LEGEND:

AST ABOVEGROUND  
STORAGE TANK

UG-1  
(REMOVED)

UG-2  
(REMOVED)



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

APPROVED:

*de7*

DATE:

*2/12/02*

DRWN BY: MED

DATE: 2/12/02

CHK'D BY:

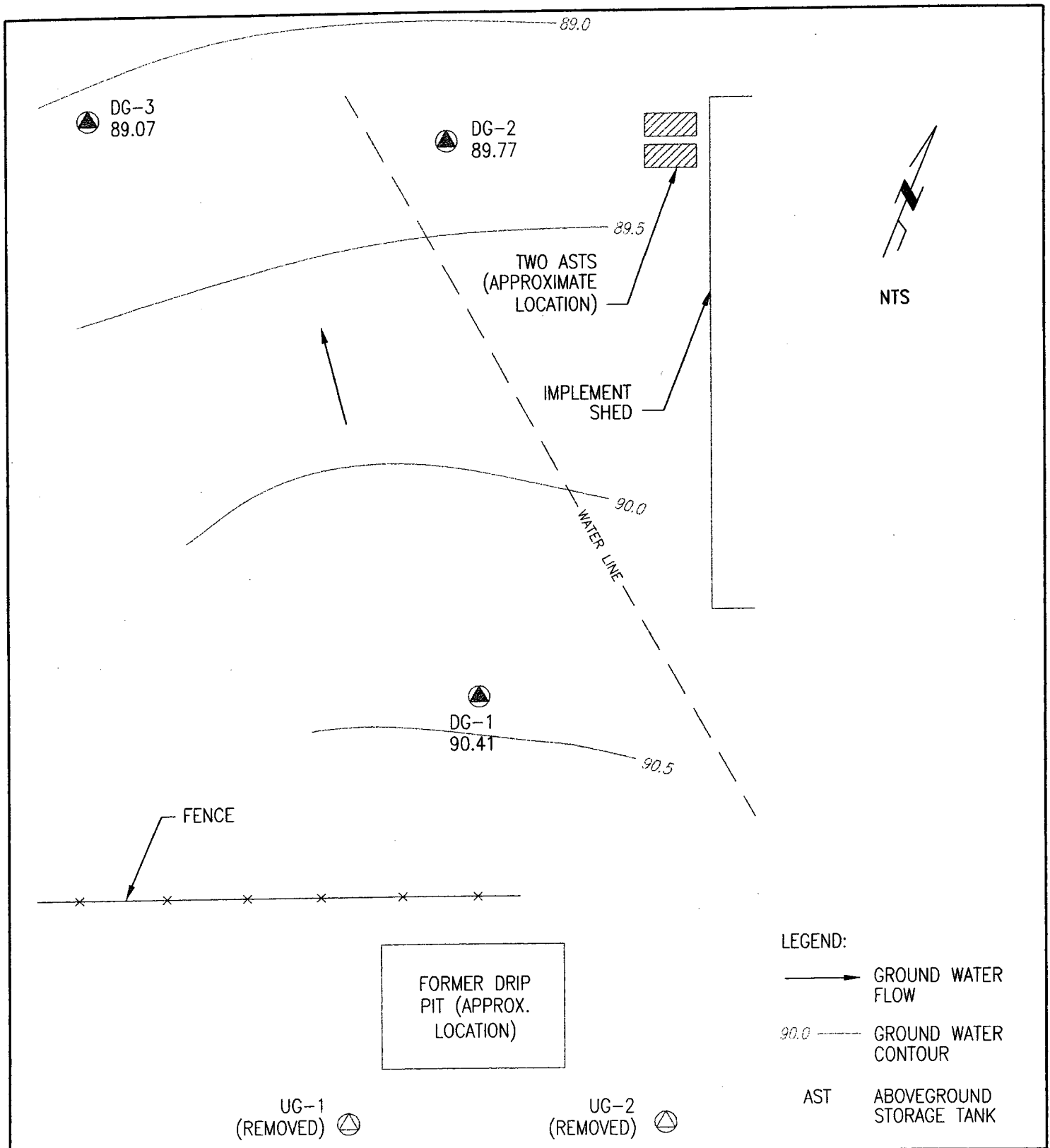
DATE:

PROJECT NO: 4-1377

SHEET: 1 OF 5

SITE SKETCH

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



**ON SITE**  
 TECHNOLOGIES, LTD.  
 Limited Partnership  
 612 E. MURRAY DR. PH. (505) 327-1072  
 FARMINGTON, NM 87401 FAX (505) 327-1496

APPROVED: <i>DET</i>	DATE: <i>2/21/2</i>
DRWN BY: MED	DATE: 2/12/02
CHK'D BY:	DATE:
PROJECT NO: 4-1377	SHEET: 1 OF 4

**GROUND WATER POTENTIOMETRIC MAP**  
 MARCH 20, 2001  
 CONOCO, INC., SALMON #1  
 SAN JUAN COUNTY, NEW MEXICO

DG-3  
88.77

DG-2  
89.95  
88.0

TWO ASTS  
(APPROXIMATE  
LOCATION)

89.0

IMPLEMENT  
SHED

WATER LINE

90.0

DG-1  
90.34

FENCE

FORMER DRIP  
PIT (APPROX.  
LOCATION)

UG-1  
(REMOVED)

UG-2  
(REMOVED)

LEGEND:

→ GROUND WATER  
FLOW

90.0 --- GROUND WATER  
CONTOUR

AST ABOVEGROUND  
STORAGE TANK



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

APPROVED: *det*

DRWN BY: MED

CHK'D BY:

PROJECT NO: 4-1377

DATE: 2/21/02

DATE: 2/12/02

DATE:

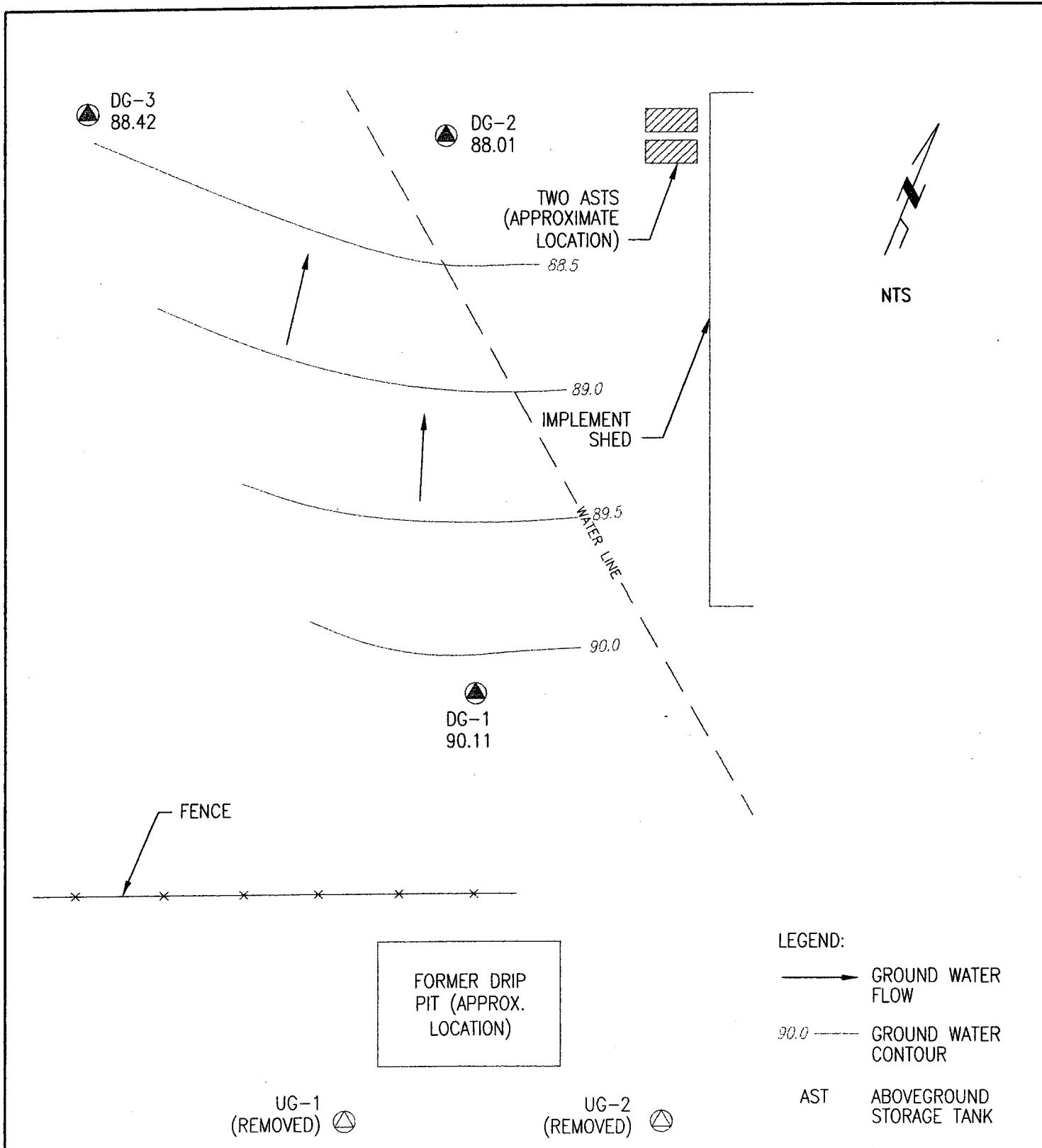
SHEET: 2 OF 4

GROUND WATER POTENTIOMETRIC MAP  
JUNE 15, 2001

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



NTS



- LEGEND:
- GROUND WATER FLOW
  - 90.0 — GROUND WATER CONTOUR
  - AST ABOVEGROUND STORAGE TANK

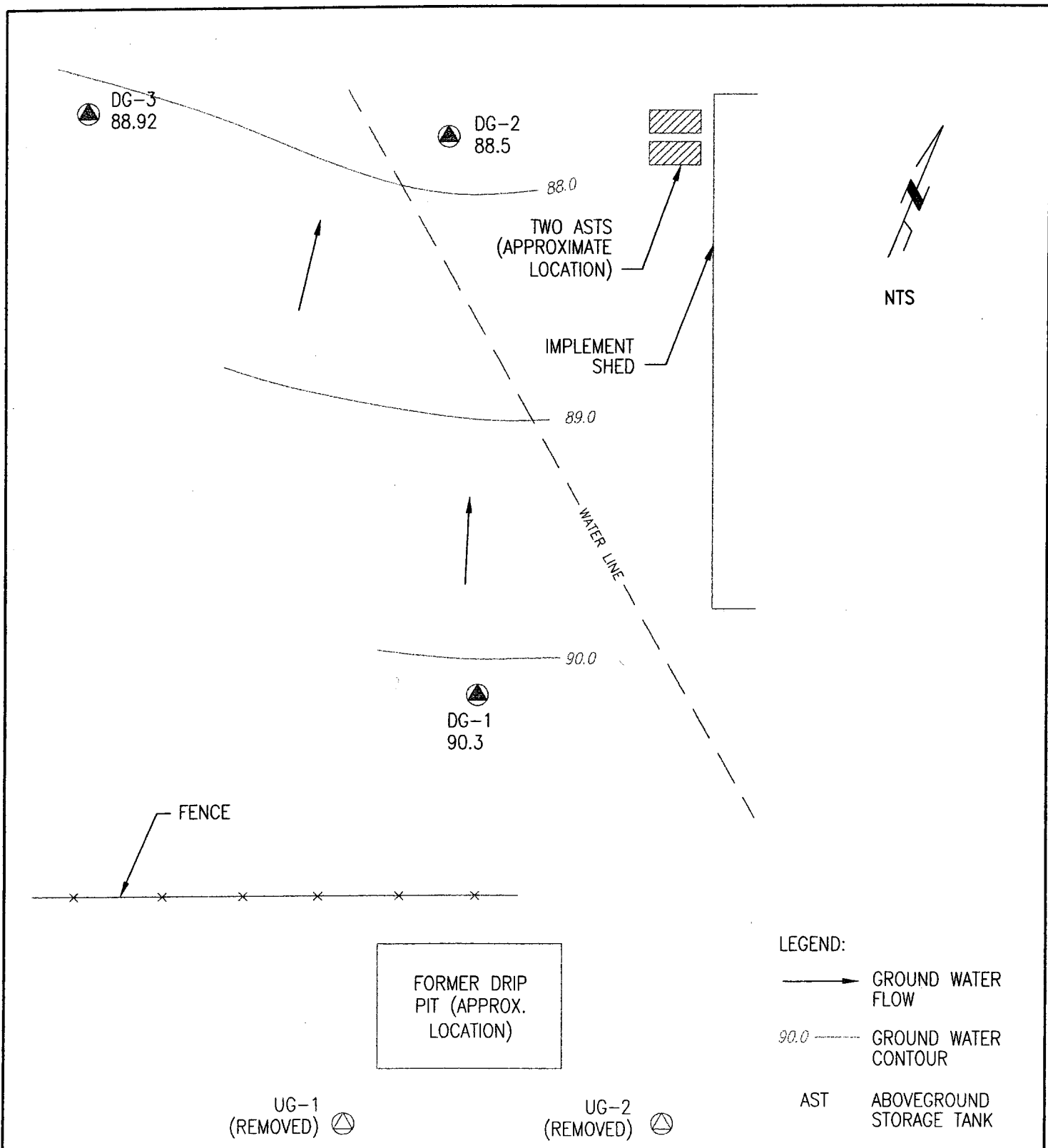


612 E. MURRAY DR. PH. (505) 327-1072  
FARMINGTON, NM 87401 FAX (505) 327-1496

APPROVED: <i>set</i>	DATE: <i>2/12/02</i>
DRWN BY: MED	DATE: 2/12/02
CHK'D BY:	DATE:
PROJECT NO: 4-1377	SHEET: 3 OF 4

GROUND WATER POTENTIOMETRIC MAP  
SEPTEMBER 19, 2001  
CONOCO, INC., SALMON #1  
SAN JUAN COUNTY, NEW MEXICO





**ON SITE**  
 TECHNOLOGIES, LTD.  
 Limited Partnership  
 612 E. MURRAY DR. PH. (505) 327-1072  
 FARMINGTON, NM 87401 FAX (505) 327-1498

APPROVED: <i>set</i>	DATE: <i>2/12/02</i>
DRWN BY: MED	DATE: 2/12/02
CHK'D BY:	DATE:
PROJECT NO: 4-1377	SHEET: 4 OF 4

GROUND WATER POTENTIOMETRIC MAP  
 JANUARY 18, 2002  
 CONOCO, INC., SALMON #1  
 SAN JUAN COUNTY, NEW MEXICO

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



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

## ANALYTICAL REPORT

Date: 17-Dec-01

<b>Client:</b>	On Site Technologies Limited	<b>Client Sample Info:</b>	Conoco Salmon 1
<b>Work Order:</b>	0112016	<b>Client Sample ID:</b>	DG-2
<b>Lab ID:</b>	0112016-01A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	4-1377; Conoco Salmon 1	<b>Collection Date:</b>	12/13/2001 1:45:00 PM
		<b>COC Record:</b>	11696

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>				Analyst: HNR
Benzene	ND	0.5		µg/L	1	12/15/2001
Toluene	ND	0.5		µg/L	1	12/15/2001
Ethylbenzene	ND	0.5		µg/L	1	12/15/2001
m,p-Xylene	ND	1		µg/L	1	12/15/2001
o-Xylene	ND	0.5		µg/L	1	12/15/2001

<b>Qualifiers:</b>	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	Surrogate - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

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



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

## ANALYTICAL REPORT

Date: 04-Feb-02

Client:	On Site Technologies Limited	Client Sample Info:	Salmon 1
Work Order:	0201021	Client Sample ID:	DG 1
Lab ID:	0201021-01A	Matrix:	AQUEOUS
Project:	4-1377; Conoco Salmon 1	Collection Date:	01/18/2002 11:40:00 AM
		COC Record:	11741

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>AROMATIC VOLATILES BY GC/PID</b>		<b>SW8021B</b>		Analyst: <b>DDM</b>		
Benzene	ND	0.5		µg/L	1	01/29/2002
Toluene	ND	0.5		µg/L	1	01/29/2002
Ethylbenzene	ND	0.5		µg/L	1	01/29/2002
m,p-Xylene	ND	1		µg/L	1	01/29/2002
o-Xylene	ND	0.5		µg/L	1	01/29/2002

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

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY SERVING INDUSTRY WITH THE ENVIRONMENT -

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



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

## ANALYTICAL REPORT

Date: 04-Feb-02

<b>Client:</b>	On Site Technologies Limited	<b>Client Sample Info:</b>	Salmon 1
<b>Work Order:</b>	0201021	<b>Client Sample ID:</b>	DG 3
<b>Lab ID:</b>	0201021-02A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	4-1377; Conoco Salmon 1	<b>Collection Date:</b>	01/18/2002 11:55:00 AM
		<b>COC Record:</b>	11741

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DDM		
Benzene	ND	0.5		µg/L	1	01/29/2002
Toluene	ND	0.5		µg/L	1	01/29/2002
Ethylbenzene	ND	0.5		µg/L	1	01/29/2002
m,p-Xylene	ND	1		µg/L	1	01/29/2002
o-Xylene	ND	0.5		µg/L	1	01/29/2002

<b>Qualifiers:</b>	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

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BRIDGING INDUSTRY WITH THE ENVIRONMENT -

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



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

## ANALYTICAL REPORT

Date: 04-Feb-02

<b>Client:</b>	On Site Technologies Limited	<b>Client Sample Info:</b>	Salmon 1
<b>Work Order:</b>	0201021	<b>Client Sample ID:</b>	DG 2
<b>Lab ID:</b>	0201021-03A	<b>Matrix:</b>	AQUEOUS
<b>Project:</b>	4-1377; Conoco Salmon 1	<b>Collection Date:</b>	01/18/2002 12:15:00 PM
		<b>COC Record:</b>	11741

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B		Analyst: DDM		
Benzene	ND	0.5		µg/L	1	01/29/2002
Toluene	ND	0.5		µg/L	1	01/29/2002
Ethylbenzene	ND	0.5		µg/L	1	01/29/2002
m,p-Xylene	ND	1		µg/L	1	01/29/2002
o-Xylene	ND	0.5		µg/L	1	01/29/2002

**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  
Surrogate - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

EMAIL: ONSITE@ONSITELTD.COM

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -