UNITED STATES

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Name of Operator CONSTRUCTION Tribe Name	· · · · · · · · · · · · · · · · · · ·	A COMPANY OF THE PARTY OF THE P			
Type of Well GAS FEB - 3 1998 OIL & GAS COMPANY Address & Phone No. of Operator FO Box 4269, Farmington, NM 87499 (505) 326-9700 Location of Well, Footage, Sec., T, R, M Location of Well, Bland Recompletion		Sundry Notices and Rep	orts on Wells		
Type of Well GAS Name of Operator DUENTS RESURCES OIL & GAS COMPANY Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 Location of Well, Footage, Sec., T. R. M 1750'FSL, 800'FML, Sec'18, T-28-N, R-9-W, NMPM CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission Notice of Intent X. Abandonment Recompletion Now Construction Plugging Back Non-Rourine Fracturing Casing Repair Water Shut off Other Describe Proposed or Completed Operations 12-24-97 MIRU. SD for holiday. 12-39-97 ND WH. NU BOP. TOOH w/57 jts 1 1/4" tbg & pkr. TOOH, tag CIEP @ 1990'. Pump 2 bbl wtr. Close csg valve. Establish injection into csg leaks. Plug #1: pump 12 ex Class "B" neat cmt @ 1554-1990'. TOOH. WOC. SDON. 12-30-97 TIH, tag TOC @ 1919'. Pump 2 bbl wtr. Plug #2: pump 10 ex Class "B" neat cmt inside csg @ 1556-1919'. TOOH. WOC. TIH, tag TOC @ 1622'. Perf 2 whele @ 9 744-1082'. TOOH. The Will apply the stablish injection. Plug #3: pump 12 ex Class "B" neat cmt below cmt retainer, set @ 1034'. TOOH. The Will apply the stablish injection into csg leaks. Perf 2 sqx holes @ 362'. TOOH. Boon. 12-31-97 TIH, tag TOC @ 362'. TOOH. Load hole w/l bbl wtr. Attempt to PT csg., fa Perf 2 sqx holes @ 362'. TOOH. Establish circ down csg & out bradenhead. NOC SD for holiday. 1-2-98 ND BOP. Cut off WH. Install dry hole marker w/15 ex Class "B" neat cmt. Rig released. Well plugged and abandoned 1-2-98. Title Regulatory Administrator Date 1/20/98_ FEB - 2 1998 FEB - 2 1998 FEB - 2 1998		DECEIVED	<u> </u>	5.	
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8. Well Name & Number Reid #16 PO Box 4289, Farmington, NM 87499 (505) 326-9700 Location of Well, Footage, Sec., T, R, M 10. Field and Pool Aztec Pict. Cliffs 11. County and State San Juan Co, NM CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA Type of Submission Notice of Intent X. Abandonment Recompletion Recompletion Non-Routine Fracturing Casing Repair Casing Repair Conversion to Injection Other - Describe Proposed or Completed Operations 12-24-97 MIRU. SD for holiday. 12-30-97 TIM, tag TOC @ 1919'. Pump 2 bbl wtr. Plug &12 pump 10 sx Class "B" neat cmt of sinside csg @ 1556-1919'. TOOH. WOC. SDON. 12-30-97 TIM, tag TOC @ 1919'. Pump 2 bbl wtr. Plug &2 pump 10 sx Class "B" neat cmt of sinside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 132 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 18 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 18 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 10 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt below cmt retainer outside csg @ 820-1082'. Pump 8 sx Class "B" neat cmt courset. NB DGP. Cut off WH. Install dry hole marker w/15 sx Class "B" neat cmt. Rig released. Well plugged and abandoned 1-2-98. It hereby cartify that	Name of Operator	OIL COM. DIV. DIST. 3		7.	Unit Agreement Nam
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his space for Federal or State Office use) PROVED BY /S/ Duame W Spencer Title Date FEB - 2 1998	Sand Sugar Stra	White De Title De	emulatory Administrato	r Dat	e 1/20/98
PROVED BY Spencer Title Date LD 2 1998					
PROVED BY /S/ Priane W Spencer Title Date Date Date				+ 0	FEB - 2 1000
NDITION OF APPROVAL, if any:			Da	re _	- <u>- 133</u> 0

@Wsite

District I P.O. Box 1980, Hobbs, NM State of New Mexico
Energy, Minerals and Natural Resources Department

District II

P.O. Drawer DD, Artesia, NM 88221

1000 Rio Brazos Rd, Aztec, NM 87410

OIL CONSERVATION DIVISION

2040 South Pacheco Street Santa Fe, New Mexico 87505

SUBMIT I COPY TO APPROPRIATE DISTRICT OFFICE AND I COPY TO SANTA SE OFFICE 1999

OIL COMO 3

PIT REMEDIATION AND CLOSURE REPORT

Operator:	PNM Gas Services (Burlington) Telephone: 324-3764
Address: 603	W. Elm Street Farmington, NM 87401
Facility or Well N	ame: Reid #16 Drip
Location:	Unit L Sec 18 T 28N R 9W County San Juan
Pit Type: S	Separator Dehydrator Other Drip
Land Type: B	LM _ State _ Fee Other
Pit Location:	Pit dimensions: length 15 width 15 depth 3
(Attach diagram)	Reference: wellhead other McClanahan #18 Wellhead
	Footage from reference: 1320'
	Direction from reference: 70 Degrees East North
	of West South
Depth to Ground (Vertical distance from contam seasonal high water elevation of water	Greater than 100 feet (0 points) 20
Wellhead Protect (Less than 200 feet from a privious domestic water source, or, less feet from all other water source	Yes (20 points) No (0 points) vate s than 1,000
Distance to Surfa (Horizontal distance to perent ponds, rivers, streams, creeks,	Greater than 1,000 feet (10 points) 0
canals and ditches	RANKING SCORE (TOTAL POINTS): 20

Reid #16 Drip			Data Carr	nlotod:	
Date Remediation Started:	08/19/	/1996	Date Com	bieren: 08	3/20/1996
Remediation Method:	Excavation	Х	Approx. C	ubic Yard	316
(Check all appropriate	Landfarmed	Х	Amount L	andfarmed (cubic y	ds) <u>316</u>
sections)	Other				
Remediation Location: (i.e., landfarmed onsite, name and location of offsite facility)	Onsite		Offsite	McClanahan #21	(13-28N-10W)
Backfill Material Location:					
General Description of Ren Excavated contaminated soi	I to pit size of 19			within a bermed are	ea at a depth of 6" to
12", Soil was aerated by plot					
Secondary source removal of	conducted on 7/1	/98; approximately 2,47	2 cu yds of cont	aminated soil remo	ved.
Ground Water Encountere	d: No	Y	es 👤	Depth	20'
Final Pit Closure Sampling:	Sample Locati	on 5 pt composite	-4 side walls and	d center of pit botto	<u>m</u>
(if multiple samples, attach sample result and diagram of	Sample depth	18'	· · · · · · · · · · · · · · · · · · ·		
sample locations and depths.)	Sample date	08/20/1996	Samp	le time	11:00:00 AM
	Sample Result	CS .			
	Benze	ene (ppm) 0.4	7610		
	Total	BTEX (ppm)	88.8474		
	Field h	neadspace (ppm)			
	TPH (ppm)	109.70	Method	8015A	
Vertical Extent (ft)	····	_ Risk	Analysis form a	attached Yes _	No <u>~</u>
Ground Water Sample:	Yes	▼ No		s, see attached Grou ary Report)	ndwater Site
I HEREBY CERTIFY THA KNOWLEDGE AND MY		MATION ABOVE IS T	RUE AND COM	MPLETE TO THE	BEST OF MY
DATE October 28, 19 SIGNATURE	99 aurees Ya	luna	PRINTED AND TITL	NAME Maureen E Project M	

PNMGS Well Site: Reid 16 Drip

Groundwater Site Summary Report

Ouarter/Year: 4th/98, 1st/99, 2nd/99 & 3rd/99

Copies: WFS(1)
Operator (1)
NMOCD District Office (1)
NMOCD Santa Fe (1)

Telephone: 505-241-2974

Operator: Burlington Resources

Sec: 18 Twn: 28N Rng: 9W Unit: L

Canyon: Muñoz

Vulnerable Class: Original OCD Ranking: 20

Lead Agency: NMOCD

Topo Map: Figure 1

Well Completion Diagram: previously submitted Site Map with Analytical Results: Figure 2

Groundwater Contour Map: Figure 3 (November 1998), Figure 4 (February 1999), Figure 5 (April 1999) &

Figure 6 (August 1999) Hydrograph: Figure 7

Full suite-Groundwater Sampling Results: previously submitted

Analytical Results: attached 2nd/99 & 3rd/99 only

Site Hydrology:

The Reid 16 Drip site lies in a steep side drainage on the flanks of Muñoz Canyon, a tributary to the San Juan River located about 9 miles southeast of Bloomfield, New Mexico. The site lies at an elevation of about 5755 feet amsl, on the west side of a narrow, north-flowing drainage that empties into Muñoz Canyon about 1000 feet north-northeast of the site.

Subsurface materials beneath the site are composed primarily of sands, with minor amounts of silt or clay materials, as determined from the four monitoring wells installed (see Figure 1). Total depths of the wells are 30 to 43 feet, and no resistant bedrock units were encountered in the monitor well borings.

Depth to water has ranged from 30 to 35 feet beneath the site. Groundwater flows towards the north, parallel with the direction of the topographic gradient and of the flow in Muñoz Canyon and the side wash by the site. There are no appreciable seasonal changes in flow direction that are apparent, except for an abnormally high measurement in well MW-4 in November, 1998 (Figure 3) which creates an apparent northwestward gradient. It is possible that a flood and recharge event caused the elevated water table in MW-4, but this is suspect because no other wells register similar trends (see hydrograph, Figure 7). More likely, the anomalous reading in MW-4 was an error in data collection.

The site hydrograph (Figure 7) shows that in general water levels do not fluctuate seasonally at the Reid 16 Drip site. There is, however, a slight upward trend of perhaps 1 foot or more throughout the period of record (April 1997 to February 1999).

Activities for Previous Year:

On November 5, 1998, February 11, 1999 and again on April 20, 1999 PNM performed quarterly sampling of monitor well MW-2 at this site. During quarterly sampling activities performed August 2, 1999, all monitor wells were sampled. PNM measured water levels quarterly in all 4 wells. Groundwater samples were submitted for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8021B. Sampling was performed in strict compliance with EPA protocol. In all instances, PNM delivered the samples to OnSite Technologies, Farmington, New Mexico.

Results:

Figure 2 presents a site map showing BTEX for each monitoring well since groundwater contamination was discovered. For two years, MW-1, -3 and -4 have consistently shown BTEX concentrations below WQCC

Public Service Company of New Mexico - Gas Services

Environmental Services Division - Alvarado Square, MS-0408 Albuquerque, NM 87158

Contact: Maureen Gannon

PNMGS: Nov99ClosureRPT 01-Nov-99

PNMGS Well Site: Reid 16 Drip (continued)

standards. BTEX concentrations in MW-2 have fluctuated although xylene levels have remained fairly constant, with most parameters over WQCC standards. After the additional source removal activities of January 1998 (approximately 1200 cubic yards of contaminated soil were remediated), BTEX levels began to drop. Monitor well MW-2 has shown BTEX concentrations below standards for four consecutive quarters.

Further Action:

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM requests closure of the Reid 16 Drip. This request is based upon the analytical data collected over the last two years at the site. The excavation of source materials was successful in achieving clean-up at the Reid 16 Drip. BTEX concentrations in all wells have been below standards for four consecutive quarters.

Upon approval of the groundwater closure report, PNM will plug and abandon the five groundwater monitoring wells at the site. The concrete pad and metal vault surrounding each well will be removed. The well casing will be cut to ground surface and each well will be plugged to the surface with cement containing 5% bentonite.

Public Service Company of New Mexico - Gas Services

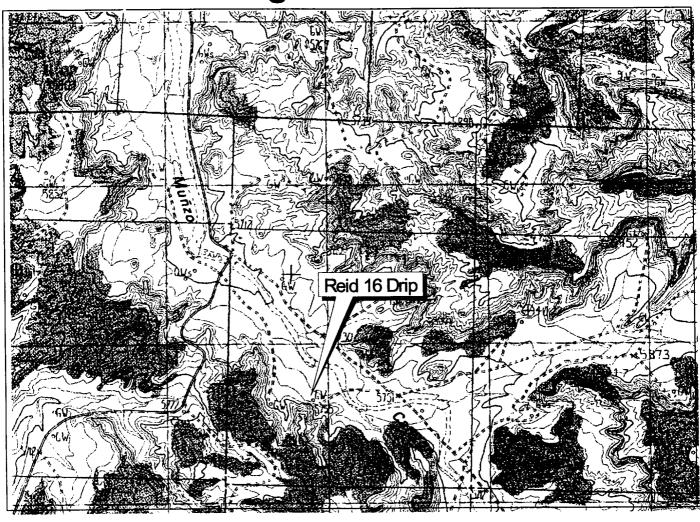
Environmental Services Division - Alvarado Square, MS-0408 Albuquerque, NM 87158

Contact: Maureen Gannon Telephone: 505-241-2974

PNMGS: Nov99ClosureRPT 01-Nov-99



Figure 1. Reid 16 Drip Twn. 28N Rng. 9W Sec. 18 Unit L



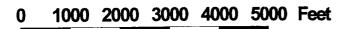
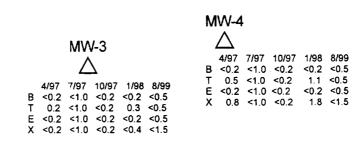
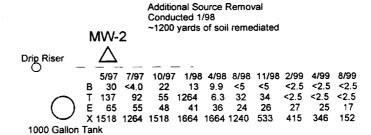




Figure 2.
Reid 16 Drip Groundwater Site Map and Analytical Results (Concentrations in ppb)





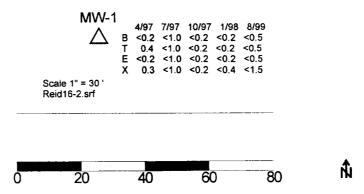


Figure 3.
Reid 16 Drip Groundwater Contour Map (November 5, 1998)

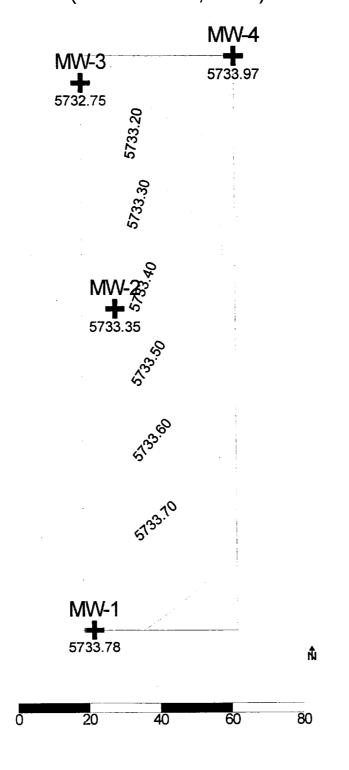


Figure 4.
Reid 16 Drip Groundwater Contour Map (February 11, 1999)

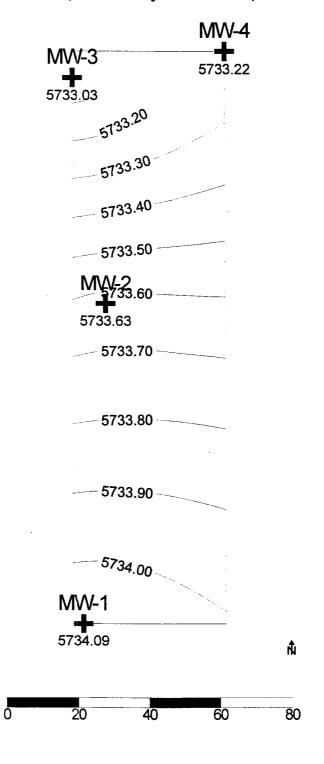


Figure 5. Reid 16 Drip Groundwater Contour Map (April 20, 1999)

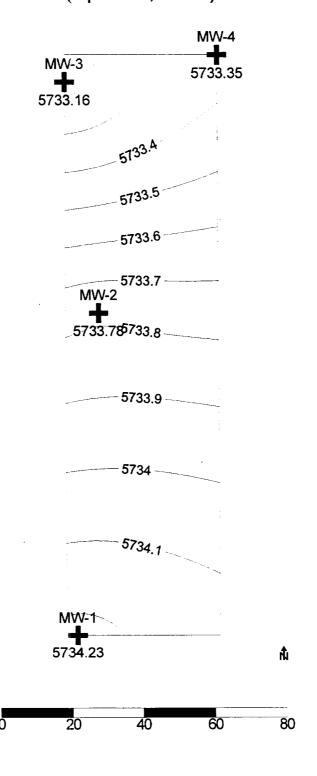
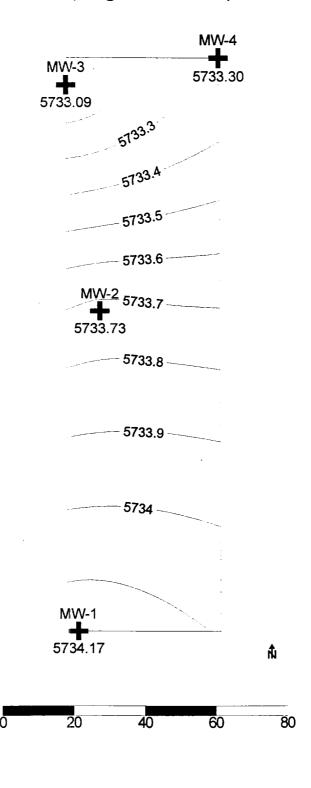
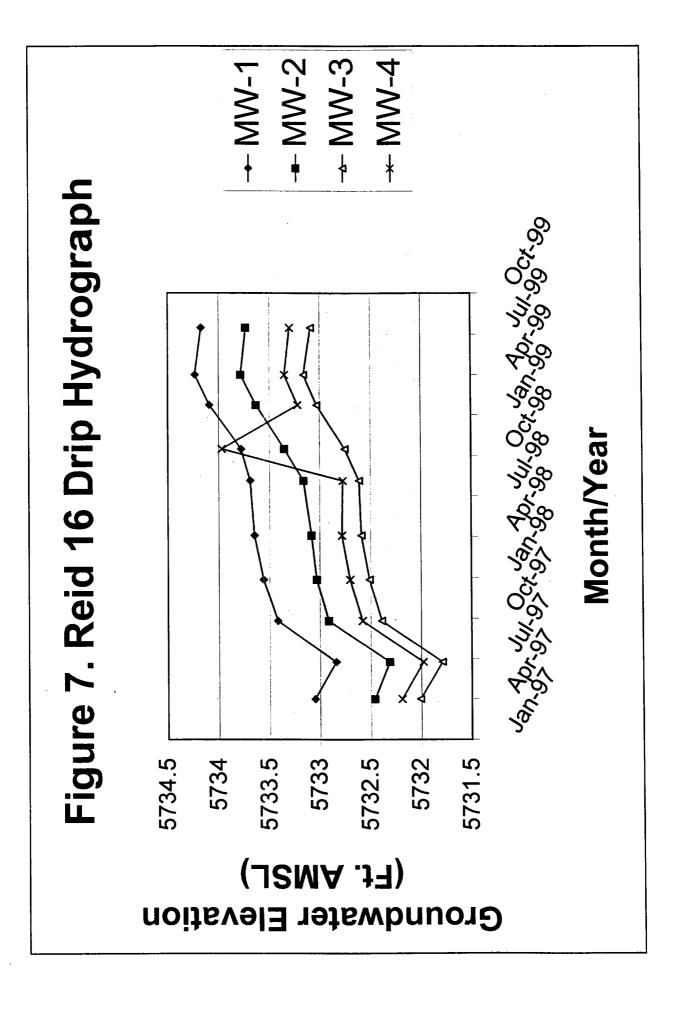


Figure 6.
Reid 16 Drip Groundwater Contour Map (August 2, 1999)







LAB: (505) 325-1556

August 09, 1999

RECEIVED
AUG 1 2 1999

Maureen Gannon PNM - Public Service Company of NM Alvarado Square Mail Stop 0408 Albuquerque, NM 87158 TEL: (505) 241-2974

RE: Reid 16 Drip

FAX (505) 241-2340

Order No.: 9908002

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 08/02/1999 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,

David Cox



LAB: (505) 325-1556

On Site Technologies, LTD.

CLIENT:

PNM - Public Service Company of NM

Project:

Reid 16 Drip

Lab Order:

9908002

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.



LAB: (505) 325-1556

Date: 09-Aug-99

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9908002

Lab ID: Project: 9908002-01A Reid 16 Drip

Matrix: AQUEOUS

Client Sample Info: Reid 16 Drip

Client Sample ID: 9908021450; MW-1

Collection Date: 08/02/1999 2:50:00 PM

COC Record: 7779

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DC
Benzene	ND	0.5	μg/L	1	08/04/1999
Toluene	ND	0.5	μg/L	1	08/04/1999
Ethylbenzene	ND	0.5	μg/L	1	08/04/1999
m,p-Xylene	ND	1	μg/L	1	08/04/1999
o-Xylene	ND	0.5	μg/L	1	08/04/1999

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 09-Aug-99

Client:

Project:

PNM - Public Service Company of NM

Work Order:

9908002

Reid 16 Drip

Lab ID: 9908002-02A Matrix: AQUEOUS

Client Sample ID: 9908021517; MW-2

Collection Date: 08/02/1999 3:17:00 PM

COC Record: 7779

Client Sample Info: Reid 16 Drip

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DC
Benzene	ND	2.5	µg/L	5	08/05/1999
Toluene	ND	2.5	μg/L	5	08/05/1999
Ethylbenzene	17	2.5	μg/L	5	08/05/1999
m,p-Xylene	140	5	μg/L	5	08/05/1999
o-Xylene	12	2.5	μg/L	5	08/05/1999

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 09-Aug-99

Client:

PNM - Public Service Company of NM

Work Order:

Lab ID:

Project:

9908002

9908002-03A Reid 16 Drip

Matrix: AQUEOUS

Client Sample ID: 9908021537; MW-3

Collection Date: 08/02/1999 3:37:00 PM

COC Record: 7779

Client Sample Info: Reid 16 Drip

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SI	V8021B			Analyst: DC
Benzene	ND	0.5	μg/L	1	08/04/1999
Toluene	ND	0.5	μg/L	1	08/04/1999
Ethylbenzene	ND	0.5	μg/L	1	08/04/1999
m,p-Xylene	ND	1	μg/L	1	08/04/1999
o-Xylene	ND	0.5	μg/L	1	08/04/1999

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



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 09-Aug-99

Client:

PNM - Public Service Company of NM

Work Order:

9908002

Lab ID:

Project:

9908002-04A Reid 16 Drip

Matrix: AQUEOUS

Client Sample Info: Reid 16 Drip

Client Sample ID: 9908021554; MW-4

Collection Date: 08/02/1999 3:54:00 PM

COC Record: 7779

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DC
Benzene	ND	0.5	μg/L	1	08/04/1999
Toluene	ND	0.5	μ g /L	1	08/04/1999
Ethylbenzene	ND	0.5	μg/L	1	08/04/1999
m,p-Xylene	ND	1	μg/L	1	08/04/1999
o-Xylene	ND	0.5	μg/L	1	08/04/1999

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



LAB: (505) 325-1556

Date: 09-Aug-99

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9908002

Lab ID: **Project:**

9908002-05A

Matrix: AQUEOUS

Reid 16 Drip

Client Sample Info: Reid 16 Drip

Client Sample ID: 9908021614; MW-5

Collection Date: 08/02/1999 4:14:00 PM

COC Record: 7779

Result	PQL	Qual Units	DF	Date Analyzed
SV	V8021B			Analyst: DC
ND	2.5	μg/L	5	08/05/1999
ND	2.5	μg/L	5	08/05/1999
16	2.5	μg/L	5	08/05/1999
150	5	μg/L	5	08/05/1999
14	2.5	μg/L	5	08/05/1999
	ND ND 16 150	SW8021B ND 2.5 ND 2.5 16 2.5 150 5	SW8021B ND 2.5 μg/L ND 2.5 μg/L 16 2.5 μg/L 150 5 μg/L	SW8021B ND 2.5 μg/L 5 ND 2.5 μg/L 5 16 2.5 μg/L 5 150 5 μg/L 5

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

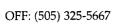
7779

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

1 0 Ö LAB ID Results to be sent to both parties. 10 Working Days Special Instructions: Date/Time : /∤ Date/Time Date/Time Alverado Square, Mail Stop 0408 Telefax No. ANALYSIS REQUESTED Albuquerque, NM 87158 PNM Gas Services Maureen Gannon 505-848-2974 24-48 Hours Mailing Address City, State, Zip Telephone No. Company Name Date/Time/2/597722 |Received by: Received by: OT STJUSER TROGER Date/Time Table Ta MATRIX PRES. Date/Time 324-3763 ** 5 WAY SAMPLE が存 DATE Dept. Date Job No. 17-037 1001.70 として - mh (Client Signature Must Accompany Request) ていくひつい Farmington, NM 87401 PNM Gas Services 603 W. Elm Street クイ Denver Bearden SAMPLE IDENTIFICATION Red 16 Dis R. Dodred Method of Shipment: An Authorized by: City, State, Zip C121 20808 70302151 419/20504 1002 1C3 SEND CON.T. TO Address City, Str. Purchase Order No.: Sampling i stion: Relinquished by: Name Relinquished by: Relinquished by: 19001





LAB: (505) 325-1556

RECEIVED
MAY 0 3 1999

April 28, 1999

Maureen Gannon PNM - Public Service Company of NM Alvarado Square Mail Stop 0408 Albuquerque, NM 87158 TEL: (505) 241-2974 FAX (505) 241-2340

RE: Reid 16 Drip

Dear Maureen Gannon,

Order No.: 9904039

On Site Technologies, LTD. received 2 samples on 4/20/99 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,

David Cox

LAB: (505) 325-1556

On Site Technologies, LTD.

CLIENT:

PNM - Public Service Company of NM

Project:

Reid 16 Drip

Lab Order:

9904039

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.



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-Apr-99

Client:

Lab ID:

Project:

PNM - Public Service Company of NM

Work Order:

9904039

9904039-01A Reid 16 Drip Matrix: AQUEOUS

Client Sample Info: Reid 16 Drip

Client Sample ID: 9904200830; MW 2

Collection Date: 4/20/99 8:30:00 AM

COC Record: 7039

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SI	V8021B			Analyst: HR
Benzene	ND	2.5	μg/L	5	4/26/99
Toluene	ND	2.5	μg/L	5	4/26/99
Ethylbenzene	25	2.5	μg/L	5	4/26/99
m,p-Xylene	320	5	μg/L	5	4/26/99
o-Xylene	26	2.5	μg/L	5	4/26/99

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



LAB: (505) 325-1556

Date: 28-Apr-99

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9904039

Lab ID: Project: 9904039-02A Reid 16 Drip

Matrix: AQUEOUS

Client Sample Info: Reid 16 Drip

Client Sample ID: 9904200900; MW 5

Collection Date: 4/20/99 9:00:00 AM

COC Record: 7039

Parameter	Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID	SI	V8021B			Analyst: HR
Benzene	ND	2.5	μg/L	5	4/26/99
Toluene	ND	2.5	μg/L	5	4/26/99
Ethylbenzene	24	2.5	μg/L	5	4/26/99
m,p-Xylene	300	5	μg/L	5	4/26/99
o-Xylene	24	2.5	μg/L	5	4/26/99

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

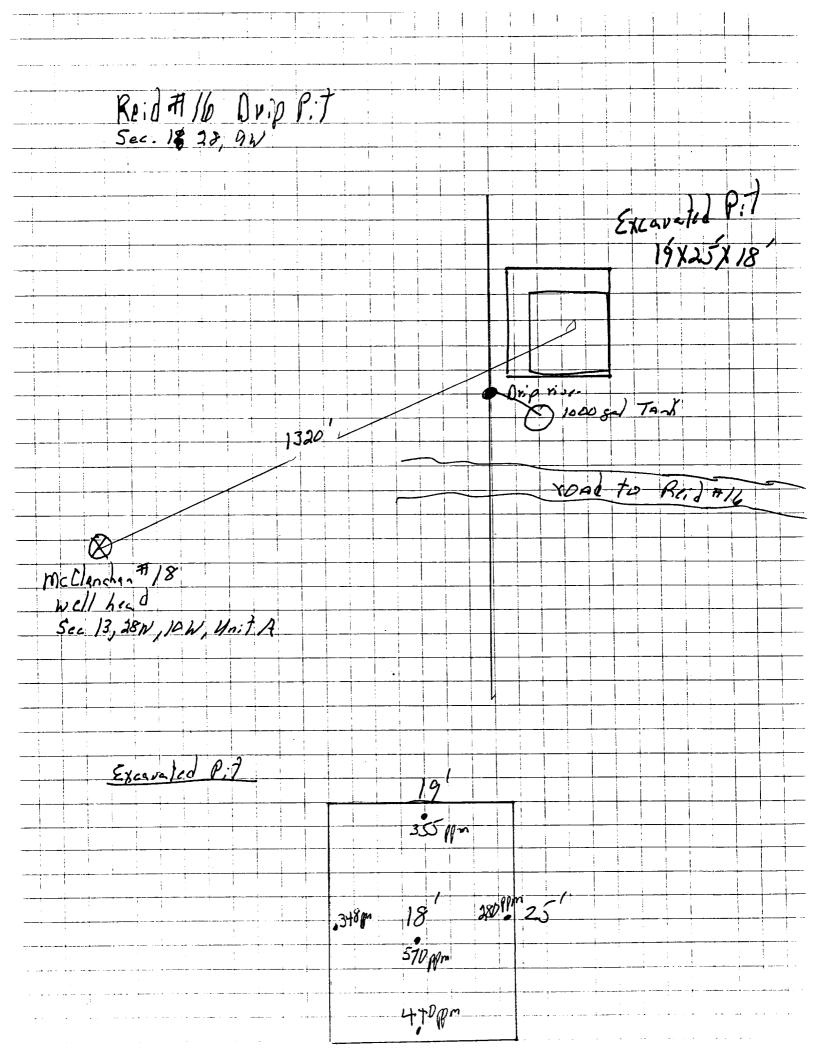
CHAIN OF CUSTODY RECORD

ON SITE

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612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase	Purchase Order No.:	qor .	Job No.			0	Name		Maur	Maureen Gannon		Title		
1	Name	Denver Bearden				<u>ТЯ</u> Т 2	Company	 	PNM	PNM Gas Services	lces			
ICE ND	Company	PNM Gas Services	Dept.	324-3763				Mailing Address	Alver	ado Squa	are, Mail	Alverado Square, Mail Stop 0408		
IVO SEI	Address	603 W. Elm Street					City, State, Zip	ite, Zip	Albu	Albuquerque, NM 87158	NM 8715	89		
NI S	City, State, Zip	Farmington, NM 87401				IA IA	Telephone No.	ne No.	505-8	505-848-2974		Telefax No.		
Sampling	Sampling Location:					Î S				ANALYSIS REQUESTED	S REQUI	ESTED		
	J.16 Drip	· · · · ·				er o iner		0						
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Authoriz	Authorized by: Ames (Client Signatur	(Client Signature Must Accompany Request)	_ Date//	3/00	•							Res	esuits to be ser to both parties.	Results to be sent to both parties.
			Distribution: M	Distribution: White - On Site	Yellow · LAB	Pink - Sampler	ı	Goldenrod - Client						





LAB: (505) 325-1556

Diesel Range Organics

Attn:

Denver Bearden

Date:

21-Aug-96

Company: PNM Gas Services

COC No .:

4731

Address:

Sample No.

11840

603 W. Elm

Job No.

2-1000

City, State: Farmington, NM 87401

PNM Gas Services - Reid #16 Drip (West of Reid #16)

Project Name: **Project Location:**

9608201100; Pit Excavation Composite Sample

Date:

20-Aug-96 Time:

11:00

Sampled by: Analyzed by: RH DC

Date:

21-Aug-96

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Diesel Range Organics (C10 - C28)	109.7	mg/kg	5.0	mg/kg

Quality Assurance Report

DRO QC No.:

0489-QC

Calibration Check

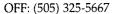
- Canbration C	10011					
	Method	Unit of	True	Analyzed		
Parameter	Blank	Measure	Value	Value	% Diff	Limit
Diesel Range (C10 - C28)	<5.0	ppm	100	107	7.2	15%

Matrix Snike

macini Opini	<u> </u>				
	1- Percent	2 - Percent			
Parameter	Recovered	Recovered	Limit	%RSD	Limit
Diesel Range (C10-C28)	88	101	(70-130)	10	20%

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

Approved by: Date: 8/21/96





LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn:

Denver Bearden

Date:

21-Aug-96

Company: PNM Gas Services

COC No.:

4731

Address:

603 W. Elm

Sample No.

11840

Job No.

2-1000

City, State: Farmington, NM 87401

PNM Gas Services - Reid #16 Drip (West of Reid #16)

Project Name: **Project Location:**

9608201100; Pit Excavation Composite Sample

Date:

20-Aug-96 Time:

11:00

Sampled by: Analyzed by:

DC

Date:

21-Aug-96

Sample Matrix:

Soil

Laboratory Analysis

Parameter		Result	Unit of Measure	Detection Limit	Unit of Measure	
Benzene		476.1	ug/kg	0.2	ug/kg	
Toluene		21456.6	ug/kg	0.2	ug/kg	
Ethylbenzene		3229.1	ug/kg	0.2	ug/kg	
m,p-Xylene		55268.6	ug/kg	0.2	ug/kg	
o-Xylene		8416.9	ug/kg	0.2	ug/kg	
	TOTAL	88847.4	ug/kg			

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

Reid # 16 Drip Pit Meridian Oi) Sec. 16.28 N, 92

9-12-96

LAndfarm: McClancham # 2)

Mei: dim O:/

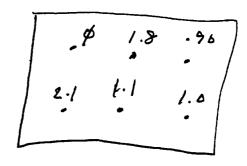
Sec. 13, 28 N, 10 N

composite sample # 9609121320 Lept.

Soil vapor PID readis = 11.2 pm

8

2"-12" dyth 5 and





LAB: (505) 325-1556

Diesel Range Organics

Attn:

Denver Bearden

Date:

16-Sep-96

Company:

PNM Gas Services

COC No .:

5043

Address:

603 W. Elm

Sample No.

12147

City, State: Farmington, NM 87401

Job No.

2-1000

Project Name:

PNM Gas Services - Reid #16 Drip Pit Landfarm

Project Location:

9609121320; 6pt. Composite, 2"-12" depth Date:

12-Sep-96 Time:

13:20

Sampled by: Analyzed by: GC DC

Date:

16-Sep-96

Sample Matrix:

Soil

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Diesel Range Organics (C10 - C28)	14.9	mg/kg	5.0	mg/kg

Quality Assurance Report

DRO QC No.:

0489-QC

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Diesel Range (C10 - C28)	<5.0	ppm	100	109	9.1	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Diesel Range (C10-C28)	91	81	(70-130)	8	20%

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

Approved by: Date:

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	2.8	Orio Kisa

300 ya-ds 2"-12" depth

Soil vapor head space = 7.8 pm 980720 1630



LAB: (505) 325-1556

On Site Technologies, LTD.

PNM - Public Service Company of NM

Project: P

PNM Pit Remediation

Lab Order:

CLIENT:

9807058

CASE NARRATIVE

Date: 28-Jul-98

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.



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-Jul-98

Client:

PNM - Public Service Company of NM

Work Order:

9807058

Lab ID:

9807058-16A

Matrix: SOIL

Project:

PNM Pit Remediation

Client Sample Info: Reid #16 Drip LF

Client Sample ID: 9807201630; 6pt. Comp.

Collection Date: 7/20/98 4:30:00 PM

COC Record: 7389

Parameter	Result	PQL Q	ıal Units	DF	Date Analyzed
DIESEL RANGE ORGANICS	sv	V8015			Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25	mg/Kg	1	7/28/98
BTEX	SV	V8020A			Analyst: DC
Benzene	ND	1	μg/Kg	1	7/22/98
Toluene	ND	2	μg/Kg	1	7/22/98
Ethylbenzene	ND	1	μg/Kg	1	7/22/98
m,p-Xylene	ND	2	μ g /Kg	1	7/22/98
o-Xylene	ND	1	μ g /Kg	1	7/22/98

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

2"-12" depth soil vapor head space = 5.7 pm 9807281000

LAB: (505) 325-1556

ITD

On Site Technologies, LTD.

PNM - Public Service Company of NM

CLIENT: Project: Pr

PNM Pit Remediation

Lab Order:

9807076

CASE NARRATIVE

Date: 04-Aug-98

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.



LAB: (505) 325-1556

Date: 04-Aug-98

ANALYTICAL REPORT

Client:

PNM - Public Service Company of NM

Work Order:

9807076

Lab ID:

9807076-01A

Matrix: SOIL

Project:

Reid #16 Drip Landfarm

Client Sample Info: McClanahan #21

Client Sample ID: 907281000; 6pt. Comp

Collection Date: 7/28/98 10:00:00 AM

COC Record: 7327

Parameter	Result	PQL	Qual Units	DF	Date Analyzed	
DIESEL RANGE ORGANICS T/R Hydrocarbons: C10-C28	SV ND	V8015	mg/Kg	1	Analyst: HR 7/30/98	

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