

3R - 341

REPORTS

DATE:

Nov. 1, 1999

Public Service Company
of New Mexico
603 W. Elm - P.O. Box 4750
Farmington, NM 87499
505 950-1997
Fax 505 325-7365

November 1, 1999

Oil Conservation Division
Attention: Bill Olson
2040 South Pacheco
Santa Fe, NM 87505



Subject: OCD Closure Reports – 3rd Reporting Quarter, 1999

Dear Mr. Olson:

PNM Environmental Services is submitting closure reports to the Oil Conservation Division for the groundwater sites listed below:

1. Florance #32A
2. Jacques #2A
3. Linda #1A
4. Mangum #1E
5. McClanahan #22
6. McCoy Gas Com A #1
7. Reid #16 Drip

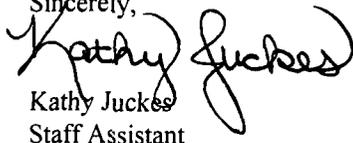
I have provided copies of the closures to Denny Foust for his information.

I have also enclosed copies of closures submitted to Denny Foust for his approval for the sites listed below:

- | | | | |
|----------------------------|---------------------------|-----------------------|-------------------------|
| 1. Angel Peak #23E | 20. Dusenberry #2A | 39. Grenier #12 | 58. Hanks #12E East |
| 2. Aztec SRC #8 Drip | 21. East #10M | 40. Grenier #13E | 59. Hanks #12Y |
| 3. C.M. Morris #3 | 22. East #12 | 41. Grenier #15 | 60. Hanks #17 |
| 4. Crouch Area Drip East | 23. East #15 | 42. Grenier #15E | 61. Hare #12 |
| 5. Crouch Area Drip West | 24. East #16 | 43. Grenier #2A | 62. Hare #13 |
| 6. Culpepper Martin #10A | 25. East #22 | 44. Grenier #3 | 63. Hare #15 |
| 7. Culpepper Martin #15A | 26. East #22A | 45. Grenier #4 Dehy | 64. Hare #16 |
| 8. Culpepper Martin #1A GC | 27. East #5 | 46. Grenier #4A Sep | 65. Hare #17 |
| 9. Culpepper Martin #1A RH | 28. East #8 | 47. Grenier #6A | 66. Hare #18 East |
| 10. Culpepper Martin #1E | 29. East #9A | 48. Grenier A #1A Sep | 67. Hare #22A |
| 11. Culpepper Martin #3A | 30. Eaton Federal #1 | 49. Grenier A #4 | 68. Holder A #1 |
| 12. Culpepper Martin #3M | 31. EH Pipken #5 | 50. Grenier A #4E | 69. Horton #1 |
| 13. Culpepper Martin #4A | 32. EH Pipken #5 Drip | 51. Grenier A #5 | 70. Horton #1A |
| 14. Culpepper Martin #4M | 33. Federal #1E | 52. Grenier A #6 | 71. Hubbard #1A |
| 15. Culpepper Martin #8A | 34. Florance #25 | 53. Grenier A #8 | 72. Jackson #2E |
| 16. Decker #4A Dehy | 35. Florance #27A | 54. Grenier B #3E | 73. Kutz Government #5J |
| 17. Decker A #3 Drip | 36. Fred Feasel G #1 | 55. Grenier B #4 | 74. Martinez #1 |
| 18. Decker A #3 Separator | 37. Fred Feasel G #1 Drip | 56. Gross #1 | |
| 19. Dusenberry #1A | 38. Fred Feasel G #1E | 57. Gross #1E | |

If you have any questions, please call me at 324-3764.

Sincerely,


Kathy Juckes
Staff Assistant

cc: Denny Foust

District I
P.O. Box 1980, Hobbs, NM

District II
P.O. Drawer DD, Artesia, NM 88221

District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

SUBMIT 1 COPY TO
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE

OIL CONSERVATION DIVISION

2040 South Pacheco Street
Santa Fe, New Mexico 87505

PIT REMEDIATION AND CLOSURE REPORT

Operator: PNM Gas Services (Burlington) Telephone: 324-3764

Address: 603 W. Elm Street Farmington, NM 87401

Facility or Well Name: Reid #16 Drip

Location: Unit L Sec 18 T 28 N R 9 W County San Juan

Pit Type: Separator Dehydrator Other Drip

Land Type: BLM 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 Water: <small>(Vertical distance from contaminants to seasonal high water elevation of ground water)</small>	Less than 50 feet	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	<u>20</u>

Wellhead Protection Area: <small>(Less than 200 feet from a private domestic water source, or, less than 1,000 feet from all other water sources)</small>	Yes	(20 points)	
	No	(0 points)	<u>0</u>

Distance to Surface Water: <small>(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)</small>	Less than 200 feet	(20 points)	
	200 feet to 1,000 feet	(10 points)	
	Greater than 1,000 feet	(0 points)	<u>0</u>

RANKING SCORE (TOTAL POINTS): 20

Reid #16 Drip

Date Remediation Started: 08/19/1996 Date Completed: 08/20/1996

Remediation Method: Excavation X Approx. Cubic Yard 316

(Check all appropriate sections)

Landfarmed X Amount Landfarmed (cubic yds) 316

Other _____

Remediation Location: Onsite _____ Offsite McClanahan #21 (13-28N-10W)

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

Backfill Material Location: _____

General Description of Remedial Action:

Excavated contaminated soil to pit size of 19' X 25' X 18' and landfarmed soil offsite within a bermed area at a depth of 6" to 12". Soil was aerated by plowing/disking until soil met regulatory levels.

Secondary source removal conducted on 7/1/98; approximately 2,472 cu yds of contaminated soil removed.

Ground Water Encountered: No Yes Depth 20'

Final Pit Closure Sampling:

Sample Location 5 pt composite-4 side walls and center of pit bottom

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

Sample depth 18'

Sample date 08/20/1996 Sample time 11:00:00 AM

Sample Results

Benzene (ppm) 0.47610

Total BTEX (ppm) 88.8474

Field headspace (ppm) _____

TPH (ppm) 109.70 Method 8015A

Vertical Extent (ft) _____ Risk Analysis form attached Yes No

Ground Water Sample: Yes No (If yes, see attached Groundwater Site Summary Report)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND MY BELIEF

DATE October 28, 1999

SIGNATURE Maureen Gannon

PRINTED NAME Maureen Gannon
AND TITLE Project Manager

Groundwater Site Summary Report

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

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

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

Telephone: 505-241-2974

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



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

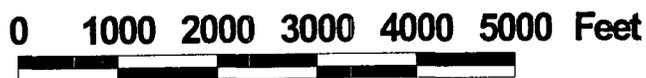
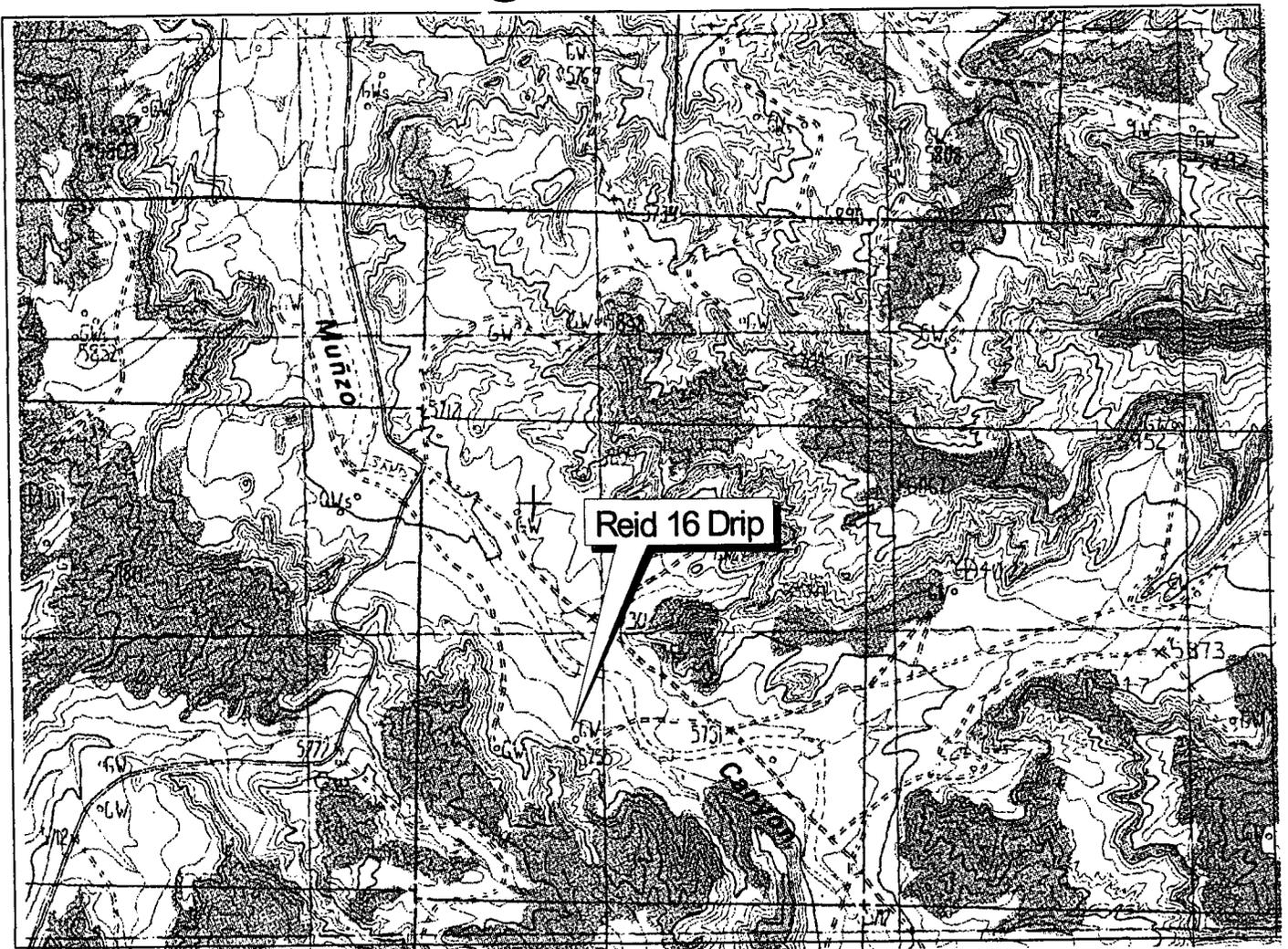


Figure 2.
Reid 16 Drip Groundwater Site Map and Analytical Results
(Concentrations in ppb)

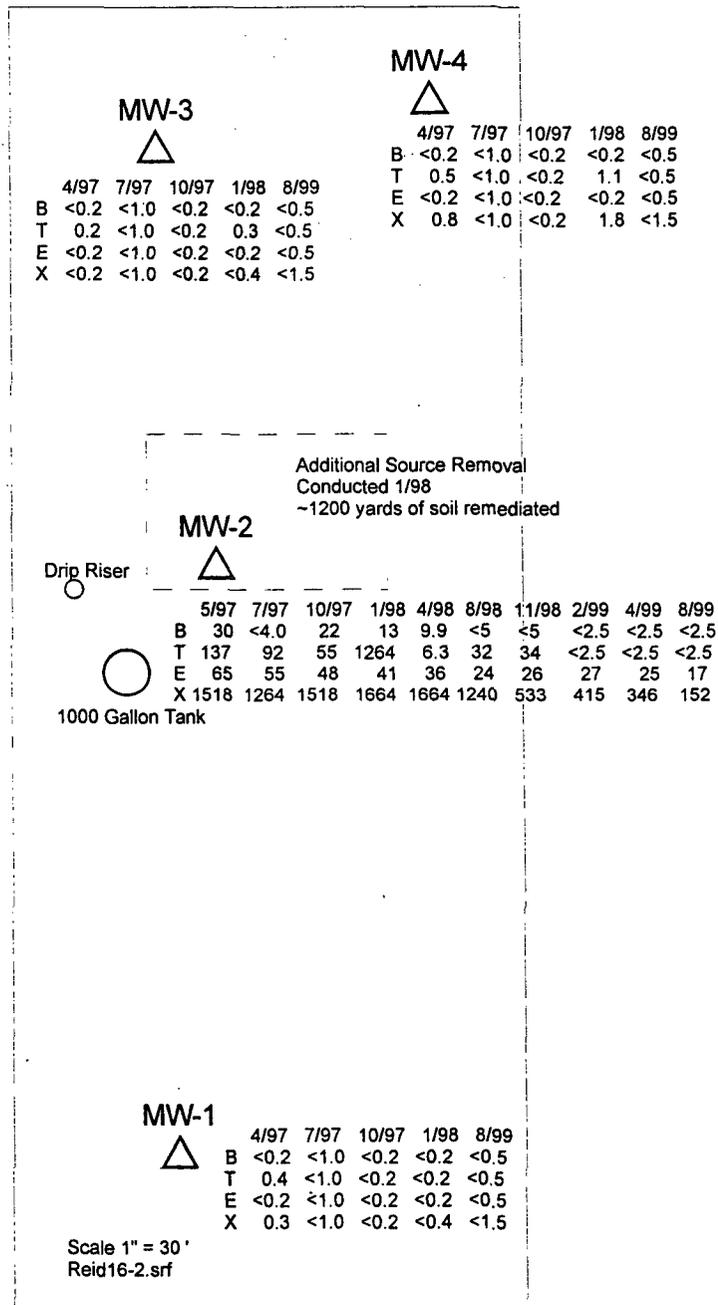


Figure 3.
Reid 16 Drip Groundwater Contour Map
(November 5, 1998)

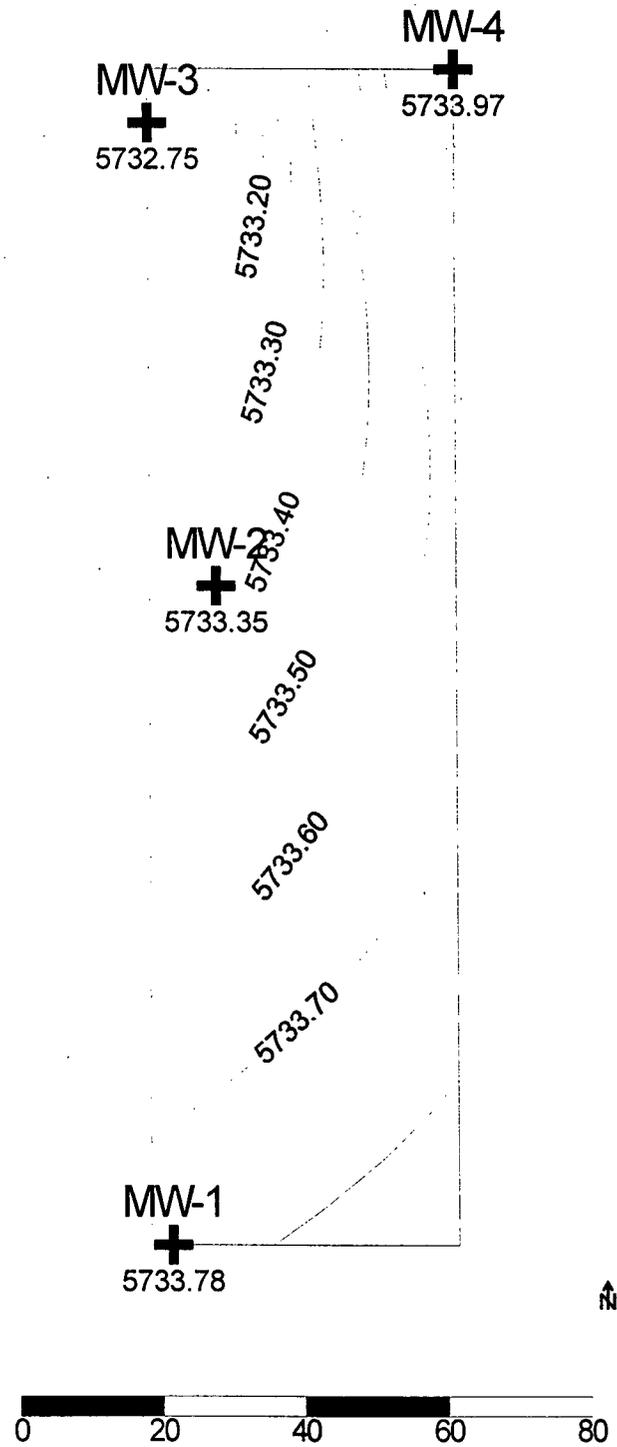


Figure 4.
Reid 16 Drip Groundwater Contour Map
(February 11, 1999)

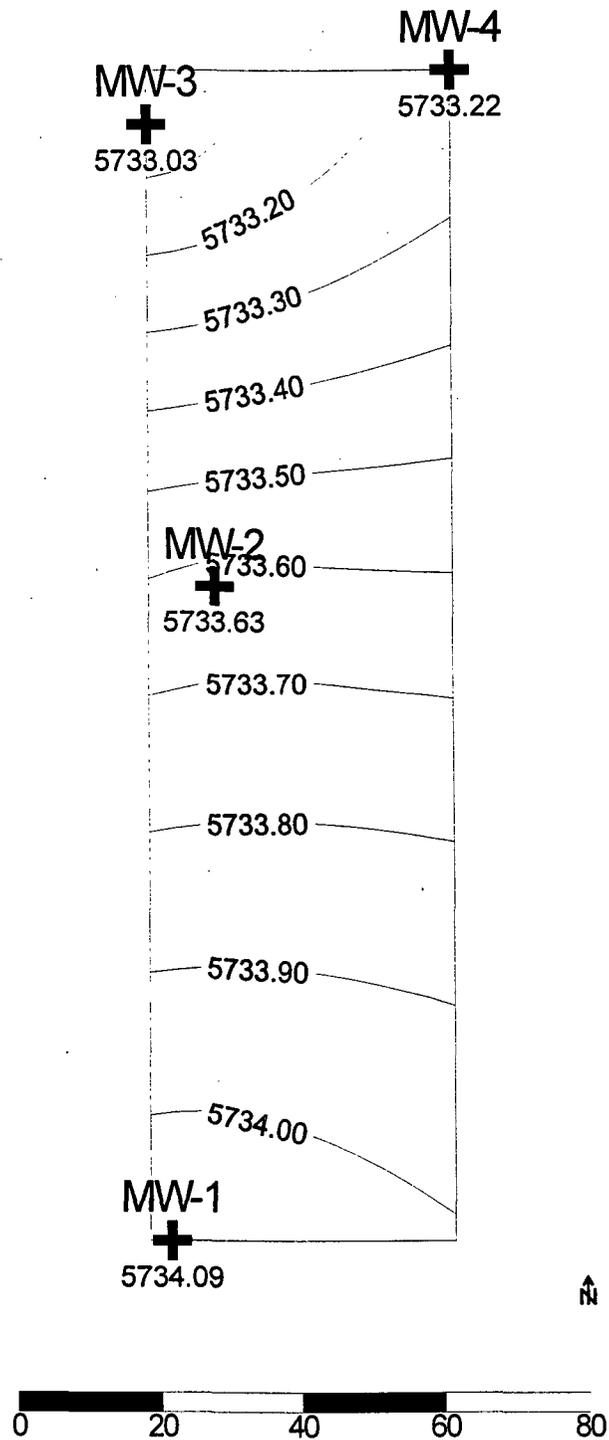
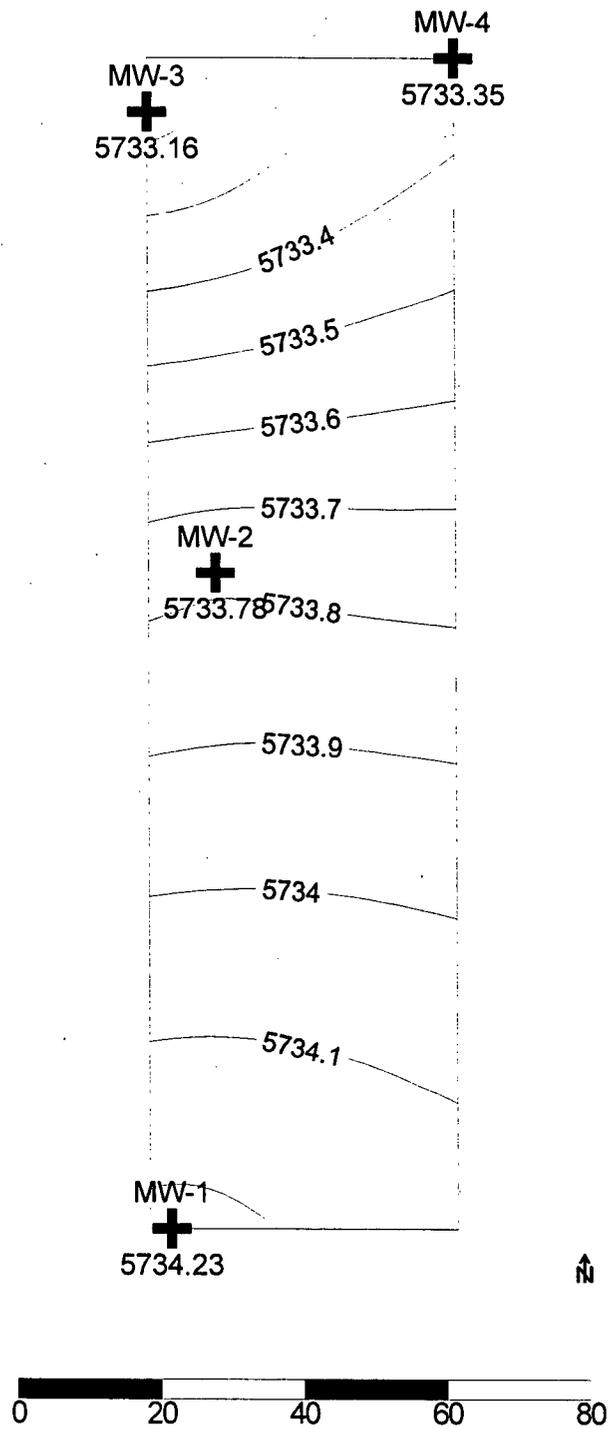


Figure 5.
Reid 16 Drip Groundwater Contour Map
(April 20, 1999)





ANALYTICAL REPORT

Date: 09-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Reid 16 Drip
Work Order:	9908002	Client Sample ID:	9908021517; MW-2
Lab ID:	9908002-02A	Matrix:	AQUEOUS
Project:	Reid 16 Drip	Collection Date:	08/02/1999 3:17:00 PM
		COC Record:	7779

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B			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



ANALYTICAL REPORT

Date: 09-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Reid 16 Drip
Work Order:	9908002	Client Sample ID:	9908021537; MW-3
Lab ID:	9908002-03A	Matrix:	AQUEOUS
Project:	Reid 16 Drip	Collection Date:	08/02/1999 3:37:00 PM
		COC Record:	7779

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B				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

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 09-Aug-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Reid 16 Drip
Work Order:	9908002	Client Sample ID:	9908021614; MW-5
Lab ID:	9908002-05A	Matrix:	AQUEOUS
Project:	Reid 16 Drip	Collection Date:	08/02/1999 4:14:00 PM
		COC Record:	7779

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		SW8021B			Analyst: DC	
Benzene	ND	2.5		µg/L	5	08/05/1999
Toluene	ND	2.5		µg/L	5	08/05/1999
Ethylbenzene	16	2.5		µg/L	5	08/05/1999
m,p-Xylene	150	5		µg/L	5	08/05/1999
o-Xylene	14	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

P.O. BOX 2606 • FARMINGTON, NM 87499



CHAIN OF CUSTODY RECORD

7779

Page: 1 of 1

Date: 4/2/99
 612 E. Murphy Dr. • P.O. Box 2606 • Farmington, NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No.		Name: Maureen Gannon		Title:	
Name: Denver Bearden		Dept. 324-3763		Company: PNM Gas Services		Mailing Address: Alverado Square, Mall Stop 0408	
Company: PNM Gas Services		Address: 603 W. Elm Street		City, State, Zip: Albuquerque, NM 87158		Telephone No.: 505-848-2974	
Address: 603 W. Elm Street		City, State, Zip: Farmington, NM 87401		Telephone No.: 505-848-2974		Telefax No.:	
Sampling Location: Reid 16 Driv				RESULTS TO			
Sampler: R. Dadrach				Number of Containers			
ANALYSIS REQUESTED				LAB ID			
SAMPLE IDENTIFICATION	SAMPLE DATE		MATRIX	PRES.	RESULTS TO	LAB ID	Date/Time
	DATE	TIME					
7705021450	4/2/99	1530	H ₂ O	101	X	7705021450	4/2/99 1530
7705021517	4/2/99	1517	H ₂ O	101	X	7705021517	4/2/99 1517
7705021537	4/2/99	1537	H ₂ O	101	X	7705021537	4/2/99 1537
7705021554	4/2/99	1554	H ₂ O	101	X	7705021554	4/2/99 1554
7705021614	4/2/99	1614	H ₂ O	101	X	7705021614	4/2/99 1614
Relinquished by: R. Dadrach				Received by: David D. [Signature]			
Date/Time: 4/2/99 1530				Date/Time: 4/2/99 1614			
Relinquished by:				Received by:			
Date/Time:				Date/Time:			
Relinquished by:				Received by:			
Date/Time:				Date/Time:			
Method of Shipment: Hand delivered				24-48 Hours		10 Working Days	
Special Instructions:				Special Instructions:			
Authorized by: R. Dadrach				Date: 4/2/99			
(Client Signature Must Accompany Request)				Results to be sent to both parties.			

OFF: (505) 325-5667



LAB: (505) 325-1556

April 28, 1999

RECEIVED
MAY 03 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

Order No.: 9904039

Dear Maureen Gannon,

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,

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

David Cox



OFF: (505) 325-5667

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 28-Apr-99

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.

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-Apr-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Reid 16 Drip
Work Order:	9904039	Client Sample ID:	9904200830; MW 2
Lab ID:	9904039-01A	Matrix:	AQUEOUS
Project:	Reid 16 Drip	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		SW8021B			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	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 SERVING INDUSTRY WITH THE ENVIRONMENT

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-Apr-99

Client:	PNM - Public Service Company of NM	Client Sample Info:	Reid 16 Drip
Work Order:	9904039	Client Sample ID:	9904200900; MW 5
Lab ID:	9904039-02A	Matrix:	AQUEOUS
Project:	Reid 16 Drip	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		SW8021B				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	

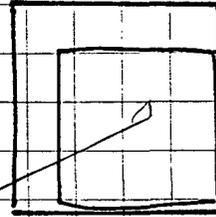
Qualifiers:

PQL - Practical Quantitation Limit	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

Reid #16 Drip P.i.T
Sec. 18, 28, 9W

Excavated P.i.T
19' x 25' x 18'

1320'

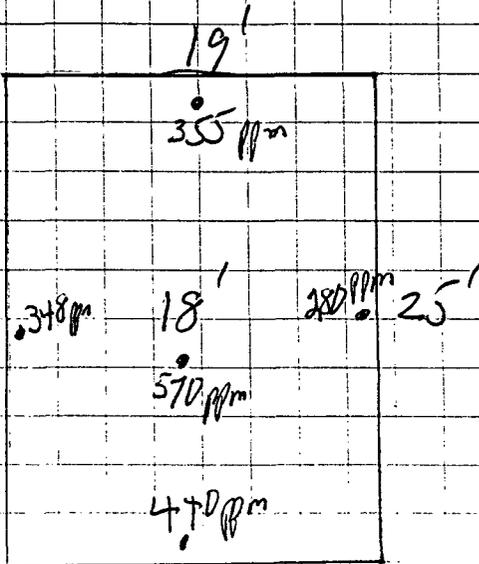


Drip riser
1000 gal Tank

ROAD TO REID #16

McClanahan #18
well head
Sec. 13, 28N, 10W, Unit A

Excavated P.i.T



OFF: (505) 325-5667



LAB: (505) 325-1556

Diesel Range Organics

Attn: *Denver Bearden*
 Company: *PNM Gas Services*
 Address: *603 W. Elm*
 City, State: *Farmington, NM 87401*

Date: *21-Aug-96*
 COC No.: *4731*
 Sample No. *11840*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Reid #16 Drip (West of Reid #16)*
 Project Location: *9608201100; Pit Excavation Composite Sample*
 Sampled by: *RH* Date: *20-Aug-96* Time: *11:00*
 Analyzed by: *DC* Date: *21-Aug-96*
 Sample Matrix: *Soil*

Laboratory Analysis

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

Quality Assurance Report

DRO QC No.: *0489-QC*

Calibration Check

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

Matrix Spike

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

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

Approved by: *Ja4*
 Date: *8/21/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Denver Bearden*
 Company: *PNM Gas Services*
 Address: *603 W. Elm*
 City, State: *Farmington, NM 87401*

Date: *21-Aug-96*
 COC No.: *4731*
 Sample No. *11840*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Reid #16 Drip (West of Reid #16)*
 Project Location: *9608201100; Pit Excavation Composite Sample*
 Sampled by: *RH* Date: *20-Aug-96* Time: *11:00*
 Analyzed by: *DC* Date: *21-Aug-96*
 Sample Matrix: *Soil*

Laboratory Analysis

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

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

Approved by: *DC*
 Date: *8/21/96*

Reid # 16 Drisp Pit
Meridian Oil
Sec. 16, 28 N, 9 W

9-12-96

Land Farm: McClanahan # 21
Meridian Oil
Sec. 13, 28 N, 10 W

Composite sample # 9609121320 kept
Soil vapor PID reading = 11.2 ppm

⊗

2" - 12" depth
sand

φ	1.8	.96
.	.	.
2.1	6.1	1.0
.	.	.

OFF: (505) 325-5667



LAB: (505) 325-1556

Diesel Range Organics

Attn: *Denver Bearden*
 Company: *PNM Gas Services*
 Address: *603 W. Elm*
 City, State: *Farmington, NM 87401*

Date: *16-Sep-96*
 COC No.: *5043*
 Sample No. *12147*
 Job No. *2-1000*

Project Name: *PNM Gas Services - Reid #16 Drip Pit Landfarm*
 Project Location: *9609121320; 6pt. Composite, 2"-12" depth*
 Sampled by: *GC* Date: *12-Sep-96* Time: *13:20*
 Analyzed by: *DC* Date: *16-Sep-96*
 Sample Matrix: *Soil*

Laboratory Analysis

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

Quality Assurance Report

DRO QC No.: 0489-QC

Calibration Check

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

Matrix Spike

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

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

Approved by: *Jag*
 Date: *9/16/96*



OFF: (505) 325-5667

LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 28-Jul-98

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9807058

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.



ANALYTICAL REPORT

Date: 28-Jul-98

Client: PNM - Public Service Company of NM	Client Sample Info: Reid #16 Drip LF
Work Order: 9807058	Client Sample ID: 9807201630; 6pt. Comp.
Lab ID: 9807058-16A Matrix: SOIL	Collection Date: 7/20/98 4:30:00 PM
Project: PNM Pit Remediation	COC Record: 7389

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/28/98
BTEX		SW8020A				
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		µg/Kg	1	7/22/98
o-Xylene	ND	1		µg/Kg	1	7/22/98

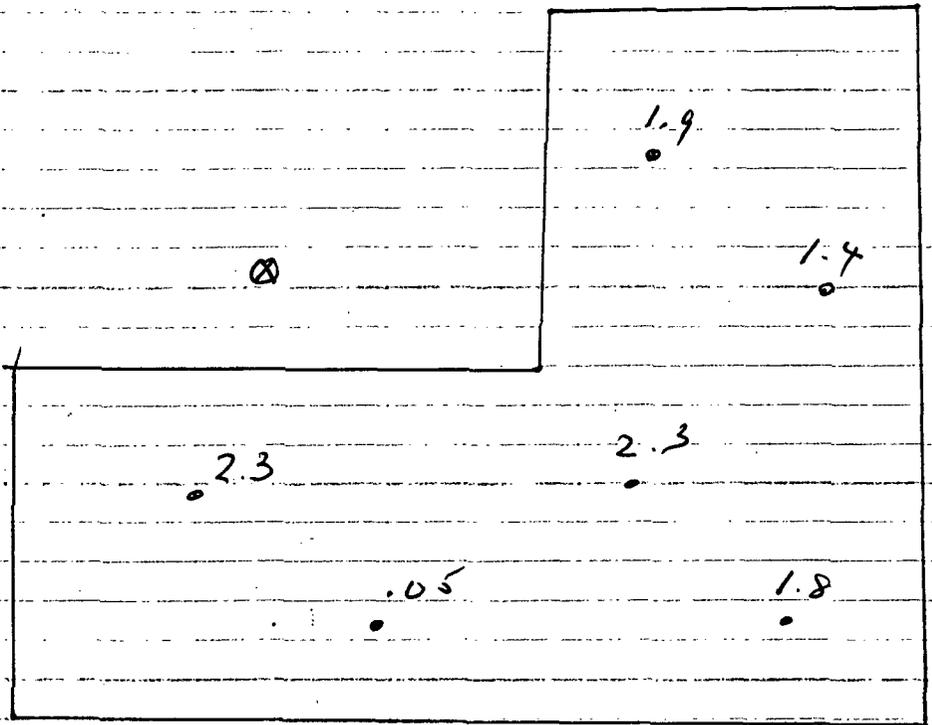
$\frac{7}{0.0010}$ ppm

<p>Qualifiers:</p> <p>PQL - Practical Quantitation Limit</p> <p>ND - Not Detected at Practical Quantitation Limit</p> <p>J - Analyte detected below Practical Quantitation Limit</p> <p>B - Analyte detected in the associated Method Blank</p>	<p>S - Spike Recovery outside accepted recovery limits</p> <p>R - RPD outside accepted recovery limits</p> <p>E - Value above quantitation range</p> <p>Surr - Surrogate</p>
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Reid # 16 Dr. p
WFS
Sec. 13, 28N, 10W

7/26/98

Land farm = MC Clewahan # 21
BR
Sec. 13, 28N, 10W



2"-12" depth

soil vapor headspace = 5.7 ppm

9807281000

OFF: (505) 325-5667



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 04-Aug-98

CLIENT: PNM - Public Service Company of NM
Project: PNM Pit Remediation
Lab Order: 9807076

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: 04-Aug-98

Client:	PNM - Public Service Company of NM	Client Sample Info:	McClanahan #21
Work Order:	9807076	Client Sample ID:	907281000; 6pt. Comp
Lab ID:	9807076-01A	Matrix:	SOIL
Project:	Reid #16 Drip Landfarm	Collection Date:	7/28/98 10:00:00 AM
		COC Record:	7327

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL RANGE ORGANICS		SW8015				Analyst: HR
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/30/98

Qualifiers:

PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
B - Analyte detected in the associated Method Blank	Surr: - Surrogate