## 3R - <u>344</u>

## REPORTS

# DATE: April 24, 2000

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



April 28, 2000

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

Subject: OCD Closure Reports - 1st Reporting Quarter, 2000

Dear Mr. Olson:

PNM Environmental Services is submitting a closure report to the Oil Conservation Division for one groundwater site, Turner #1A. I have provided copies of the closure to Denny Foust for his information.

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

EH Pipken #10E Sammons #2E

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

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State of New Mexico Energy, Minerals and Natural Resources Department SUBMIT I COPY TO APPROPRIATE DISTRICT OFFICE AND I COPY TO SANTA FE OFFICE

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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 8	7401		
Facility or Wo	ell Name:			
Location:	Unit <u>M</u> Sec	<u>24</u> T <u>31N</u> R	<u>11 W</u> County S	San Juan
Pit Type:	Separator Dehydr	ator <u>M</u> Other		
Land Type:	BLM State	Fee <u>M</u> Other		
Pit Location:	Pit dimensions: length	15 ' width 1	5 depth	4 '
(Attach diagrar	n) Reference: wellhead	✓ other	·····	
	Footage from reference:	53'		
	Direction from reference: 75	Degrees 🖌 Ea	ast North	
		W	of 'est South	
Depth to Grou (Vertical distance from c seasonal high water elev water	und Water: contaminants to ation of ground	Less than 50 feet 50 feet to 99 feet Greater than 100 feet		(20 points) (10 points) ( 0 points) 20
Wellhead Pro	a private	Yes No		(20 points) ( 0 points)20
domestic water source, i feet from all other water	r sources)			
Distance to Su	urface Water:	Less than 200 feet 200 feet to 1,000 feet Greater than 1,000 feet		(20 points) (10 points) ( 0 points)20
ponds, rivers, streams, c canals and ditches	zreeks, irrigation	RANKING SCORE (	(TOTAL POINTS) :	60

	<u></u>				
Turner #1A	05/14/10	007	Date Completed:	05/14/1	007
Date Remediation Started:	00/14/18			00/14/	
<b>Remediation Method:</b>	Excavation -	X	Approx. Cubic Yar	d	1016
(Check all appropriate	Landfarmed	x	Amount Landfarme	ed (cubic yds)	1016
sections)	Other				
Remediation Location:	Onsite X	ζ	Offsite		
(i.e., landfarmed onsite, name and location of offsite facility)				<del></del>	
Backfill Material Location:					
General Description of Ren	nedial Action:				
-			le se alfernance al se alternancia e su date inco	. <b></b>	the denth of C"
to 12". Soil was aerated by c	lisking/plowing unt	il soil met regulat	iandfarmed soll onsite within a ory levels.	a bermed area a	
Secondary source removal of	conducted on 3/31/	98; approximatel	y 980 cu yds of contaminated	soil removed.	
		·····		t dan a tanê a ranawan	
Ground Water Encountere	d: No		Yes 💉	Depth	10'
· · · · · · · · · · · · · · · · · · ·					
Final Pit Closure Sampling:	Sample Location	n <u>Middle of </u>	pit.		
(if multiple samples, attach sample result and diagram of	Sample depth	10'			
sample locations and depths.)	Sample date	05/15/1997	Sample time	8:0	0:00 AM
	Sample Results				
	Benzene	e (ppm)	0.359		
, ,	Total B	TEX (ppm) –	3.412		
	Field hea	adspace (ppm)			
	TPH (ppm)		Method	8020A	
Vertical Extent (ft)			Risk Analysis form attached	Yes	No
Ground Water Sample:	Yes	No	(If yes, see atta Summary Repo	ched Groundwa ort)	ater Site
I HEREBY CERTIFY THA KNOWLEDGE AND MY I	T THE INFORMA BELIEF	ATION ABOVE	IS TRUE AND COMPLETE	TO THE BEST	Г OF MY
DATE <b>April 24, 2000</b> SIGNATURE <u>Maw</u>	very Sannan	,	PRINTED NAME AND TITLE	Maureen Gan Project Mana	non ger

, Well Name: Data Sheet #: YOIN 3092 Twn Rng Unit Sec Legal **Description:** 31N 27 114 ~ ..... . . . . . . . . . . ... ........... ..... N Ø ----45661 . ..... . ... . ..... -----. . . . . . . . . . . . . -----. المرقع المعالية المتعام المتعام المتعاد المتعاد المتعاد المتعاد المتعاد المتعاد المتعاد المتعاد المتعاد المتع ----...... ..... . . . . . . . . . . . . . ..... 1 1 ..... Т المعروبين فالرزادي المتنفسينين وربيته فيتنفه بالتارات · . . . . . . . . . . . . ...... -----------. .... ..... ------... . .. .. ..... ..... ----..... T ..... ...... 

•••	******		 A REAL PROPERTY OF A REA
		. ~	 and the second and the second second second second

Turner # 1A 5-14-97 Burlington Resources Sec. 24, 31N, 11W Start of excavation : OH  $\triangleleft$ Farm Typ 45\$1 Wata at 10' End of excention : 61' 10 depth avery 12 bottom 45' DH

ł 0 Turner # 1 A Burlington Resources Sec. 24,31N, 10W, 3-30-98 60mw#4 40661 18' 0 Mutta-4 19.20 19.-10-Testhols OH 20 FAm Tay 701 Ka



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:	Denver B	earden		Date:	20-May-97
Company:	PNM Gas	s Services		COC No.:	5879
Address:	603 W. I	Elm		Sample No.:	14624
City, State:	Farmingt	on, NM 87401		Job No.:	2-1000
Project Nam	ne:	PNM Gas Servic	ces - Turner #1A		
<b>Project Loca</b>	ation:	9705150800;	10' depth		
Sampled by	•	GC	Date:	15-May-97 Time:	8:00
Analyzed by	<b>/</b> :	DC	Date:	17-Maγ-97	
Sample Mat	trix:	Liquid			

Parameter		Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene		359	ug/L	2	ug/L
Toluene		1311	ug/L	2	ug/L
Ethylbenzene		145	ug/L	2	ug/L
m,p-Xylene		1321	ug/L	2	ug/L
o-Xylene		276	ug/L	2	ug/L
	TOTAL	3412	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By: 5/20/97 Date:

#### P.O. BOX 2606 • FARMINGTON, NM 87499



A N

Turner #, A Q 1300 hrs. 6-23-97

Analyzed by:

Sample Matrix:



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn:	Denver Bea	rden			Date:	8-Jul-97
Company:	PNM Gas S	ervices			COC No.:	5170
Address:	603 W. Elm	1		5	Sample No.:	15060
City, State:	Farmington,	NM 87401			Job No.:	2-1000
Project Nam	ne:	PNM Gas Servi	ces - Turner #1A Land	dfarm		
Project Loca	ation:	9706231300;	10pt. Composite			
Sampled by	1	RH	Date:	23-Jun-97	Time:	13:00

Date:

7-Jul-97

#### Laboratory Analysis

Parameter	Results as	Unit of	Limit of	Unit of
	Received	Measure	Quantitation	Measure
Diesel Range Organics (C10 - C28)	ND	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

DC/HR

Soil

Quality Assurance Report

DRO QC No.: 0548-STD

Continuing Calibration Verification							
Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit	
Diesel Range (C10 - C28)	ND	ppm	200	190	5.1	15%	

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Diesel Range (C10-C28)	84	89	(70-130)	5	20%

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

Approved by: 7/8/97 Date: (

P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Attn: Denve	r Bearden	Date:	1-Jul-97
Company: PNM C	Gas Services	COC No.:	5170
Address: 603 W	. Elm	Sample No.:	15060
City, State Farmin	ngton, NM 87401	Job No.:	2-1000
Project Name:	PNM Gas Services - Turner #1A	Landfarm	

	oco - ramer and	Barrarar	
9706231300; 10	Opt. Composite		
RH	Date:	23-Jun-97 Time:	13:00
DC	Date:	28-Jun-97	
Soil			
	9706231300; 10 RH DC Soil	9706231300;10pt. CompositeRHDate:DCDate:Soil	9706231300; 10pt. Composite           RH         Date:         23-Jun-97 Time:           DC         Date:         28-Jun-97           Soil         Soil         Soil

#### Laboratory Analysis

Parameter		Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene		ND	ug/kg	1	ug/kg
Toluene		1	ug/kg	1	ug/kg
Ethylbenzene		2	ug/kg	1	ug/kg
m,p-Xylene		7	ug/kg	1	ug/kg
o-Xylene		1	ug/kg	1	ug/kg
	TOTAL	11	ug/kg		

ND - Not Detected at Limit of Quantitation

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

Approved by:

#### P.O. BOX 2606 • FARMINGTON, NM 87499

#### **Groundwater Site Summary Report**

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

Quarter/Year: 2<sup>nd</sup>/99, 3<sup>rd</sup>/99, 4<sup>th</sup>/99 & 1<sup>st</sup>/00

**Operator:** Burlington Resources **Sec:** 24 **Twn:** 31N **Rng:** 11W **Unit:** M **Canyon:** Animas Vulnerable Class: Original OCD Ranking: 40 Lead Agency: NMOCD

Topo Map: Figure 1
Well Completion Diagram: previously submitted.
Site Map with Analytical Results: Figure 2
Groundwater Contour Map: Figure 3 (April 1999), Figure 4 (August 1999), Figure 5 (October 1999) & Figure 6 (January 2000)
Hydrograph: Figure 7
Full suite-Groundwater Sampling Results: Previously submitted Analytical Results: attached

#### Site Hydrology:

The Turner 1A site as presented in Figure 1 is located in the floodplain of the Animas River, about 1000 feet southeast of the waterline, and lies perhaps 20 feet higher in elevation than the river waters. Materials beneath the site are essentially the same as the modern river's bedload, spanning the broad alluvial plains along the major river systems of the San Juan Basin (Stone et al., 1983). The valley floor of the Animas is about one mile wide near the Turner 1A site. Hydraulic conductivity of these materials is expected to be very high, as they are described as "cobbles" in site excavations and monitor wells.

An irrigation ditch (not shown on topographic maps) skirts the north and east sides of the site. Recharge to groundwater is likely from drainage of these irrigated lands. Depth to water is roughly ten feet.

Four monitor wells installed at the Turner 1A site show that groundwater flow is west-northwest, following the topographic gradient precisely towards the river (Figures 3 through 6). Groundwater elevations are strongly influenced by the operation of the irrigation ditch in spring and summer months; hydrographs at the site show lowest elevations in the wintertime (Figure 7). Flow direction does not vary appreciably from season to season (see Figures 3 through 6).

#### Activities for Previous Year:

Quarterly sampling took place on April 21, August 3, and October 27, 1999 and again on January 19, 1999. Water level measurements were taken in the four monitoring wells. PNM conducted groundwater sampling in each well for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) during the January 2000 sampling event, and only in well MW-2 during the previous three quarters. All sampling was performed in strict compliance with EPA protocol. PNM delivered the samples to OnSite Technologies, Farmington, New Mexico. The samples were analyzed for BTEX using EPA Method 8021B.

PNM conducted additional source removal at this site in March, 1998 in order to address the elevated benzene levels in MW-2. Approximately 980 cubic yards of contaminated soil were remediated.

#### **Results:**

Figure 2 presents a site map showing BTEX for each monitoring well since groundwater contamination was discovered. MW-1, -3 and -4 have been below standards since installation, and as of the May 1998 sampling event, each of these wells has shown BTEX concentrations below standards for four consecutive quarters. MW-2 has demonstrated a strong downward trend in benzene concentrations since secondary remediation. Benzene levels have been below standards now for four consecutive quarters.

Toluene, ethylbenzene and xylenes concentrations in this well have been below standards since project inception.

#### **Future Actions:**

Consistent with PNM's San Juan Basin Groundwater Management Plan, PNM requests closure of the Turner 1A. This request is based upon the analytical data collected over the last three years at the site. The secondary excavation of additional source materials was successful in achieving clean-up at the Turner 1A; the BTEX concentrations in all of the wells have been below standards for four consecutive quarters.

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



Figure 1. Turner 1A Topographic Map



Cedar Hill, Quadrangle



Figure 2. Turner 1A Site Map & Analytical Results (Concentrations in ppb)



Figure 3. Turner 1A Groundwater Contour Map (April 21, 1999)



Feet

















### Attachments

April 28, 1999



LAB: (505) 325-1556

### RECEIVED MAY 0 3 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: Turner 1A

Order No.: 9904050

Dear Maureen Gannon,

On Site Technologies, LTD. received 1 sample on 4/21/99 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

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### On Site Technologies, LTD.

Date: 28-Apr-99

CLIENT:	PNM - Public Service Company of NM	
Project:	Turner 1A	CASE NARRATIVE
Lab Order:	9904050	

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.

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 28-Apr-99

Client:	PNM - Public Se	ervice Company of N	M	Client Sample Info: Turner 1A					
Work Order:	9904050			Clier	nt Sample	<b>D</b> : 9904211	.330; MW 2		
Lab ID:	9904050-01A	Matrix: AQUE	OUS	Co	llection D	ate: 4/21/99	1:30:00 PM		
Project:	Turner 1A				COC Rec	ord: 7176			
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed		
AROMATIC VOL	ATILES BY GC/PI	D SV	N8021B				Analyst: HF	र	
Benzene		2.5	0.5		µg/L	1	4/26/99		
Toluene		ND	0.5		µg/L	1	4/26/99		
Ethylbenzene		1.8	0.5		µg/L	1	4/26/99		
m,p-Xylene		1.2	1		µg/L	1	4/26/99		
o-Yvlene		12	0.5		uo/l	1	1/26/00		

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

1 of 1

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

#### P.O. BOX 2606 • FARMINGTON, NM 87499

- Technology Blending Industry with the Environment -

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ON SITE						Page		of	· ·
TECHNOLOGIES, LTD.	r. e P.O. Box 2606 e Fam 5) 325-5667 e FAX: (505)	ington, NM 8745 325-6256	6	Ĺ					
<sup>o</sup> urchase Order No.: Job No.	- - - -		01	lame	Mau	ireen Gannon	Title		
Name Denver Bearden				company	PNN	A Gas Services			
D C Company PNM Gas Services	Dept. 324-3763		רט זבד דבו	<b>Aailing Addr</b>	ess Alve	erado Square, M	ail Stop 04	408	
E O O Address 603 W. Elm Street				Sity, State, Z	ip Albı	uquerque, NM 87	158		
City, State, Zip Farmington, NM 87401			IH IH	elephone N	o. 505	-848-2974	Telefax N	No.	
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(Client Signature Must Accompany Request)									
	Distribution: White - On Site	Yellow - LAB Pink	- Sampler	Goldenrod - C	tient				

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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 FAX (505) 241-2340

RE: Turner 1A

Order No.: 9908006

Dear Maureen Gannon,

On Site Technologies, LTD. received 1 sample on 08/04/1999 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.

Date: 09-Aug-99

CLIENT:	PNM - Public Service Company of NM	
Project:	Turner 1A	CASE NARRATIVE
Lab Order:	9908006	

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.

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 09-Aug-99

Client: Work Order:	PNM - Public Ser 9908006	vice Company of N	JM	Client San Client Sa	nple Info: Turner 1 mple ID: 990803	IA 1600; MW-2
Lab ID:	9908006-01A	Matrix: AQUEC	DUS	Collect	ion Date: 08/03/1	999 4:00:00 PM
Project:	Turner 1A	·		COC	<b>C Record:</b> 7782	
Parameter		Result	PQL	Qual Units	s DF	Date Analyzed
AROMATIC VOL	ATILES BY GC/PID	sv	V8021B			Analyst: DC
Benzene		0.8	0.5	µg/L	. 1	08/04/1999
Toluene		ND	0.5	µg/L	. 1	08/04/1999
Ethylbenzene		1.5	0.5	µg/L	. 1	08/04/1999
m,p-Xylene		ND	1	µg/L	1	08/04/1999
o-Xylene		0.8	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

1 of 1

#### P.O. BOX 2606 • FARMINGTON, NM 87499

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LAB: (505) 325-1556

November 01, 1999

RECEIVED NOV 0 5 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: Turner 1A

Order No.: 9910041

Dear Maureen Gannon,

On Site Technologies, LTD. received 1 sample on 10/27/99 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

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

On Site Technologies, LTD.

Date: 01-Nov-99

CLIENT:	PNM - Public Service Company of NM	
Project:	Turner 1A	CASE NARRATIVE
Lab Order:	9910041	

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.

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 01-Nov-99

Client: Work Order:	PNM - Public Se 9910041	ervice Company of N	M	Client Clier	Samp at Sam	le Info	<b>b:</b> Turner 1 <b>b:</b> 9910271	A 055: MW-2
Lab ID:	9910041-01A	Matrix: AQUE	DUS	Co	llectio	n Dat	e: 10/27/99	9 10:55:00 AM
Project:	Turner 1A					Recor	d: 7828	· · · · · · · · · · · · · · · · · · ·
Parameter		Result	PQL	Qual	Units		DF	Date Analyzed
AROMATIC VOL	ATILES BY GC/PII	D SV	V8021B					Analyst: DM
Benzene		ND	0.5		µg/L		1	10/29/99
Toluene		ND	0.5		µg/L		1	10/29/99
Ethylbenzene		1.7	0.5		µg/L		1	10/29/99
m,p-Xylene		ND	1		µg/L	:	1	10/29/99
o-Xylene		0.8	0.5		µg/L		1	10/29/99

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

1 of 1

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

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Purchase	Order No.:	or	b No.				0	Name		Maure	en Gannon	Ē	0		
3	Name	Denver Bearden					LS. TR	Compa	hu	PNM 0	as Service	S			Τ
D ICI ND	Company	PNM Gas Services		Dept. 3:	24-3763		ורד 190	Mailing	Address	Alvera	do Square,	Mail St	op 0408		
IAC IAC	Address	603 W. Elm Street					ISE EB	City, St	ate, Zip	Albuqi	uerque, NM	187158			
NI	City, State, Zip	Farmington, NM 87401			al An Na Na An		<b>ม</b> เ	Telepho	one No.	505-84	8-2974	Tel	efax No.		
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Aethod of	Shipment:			ż			Rush		24-48 H	ours	10 Working	Days Sl	oecial Instr	uctions:	
Authoriz	ed by:	and Schedder	Date	2-01	X								Resul to b	ts to be sent oth partles.	
			Dist	tribution: White	- On Site	Yellow - LAB	Pink - Sampl	er Golden	rod - Client						]

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LAB: (505) 325-1556



February 28, 2000

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: Turner 1A

Order No.: 0001023

Dear Maureen Gannon,

On Site Technologies, LTD. received 5 samples on 1/20/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Aromatic Volatiles by GC/PID (SW8021B)

Arsenic, Dissolved (SW6010A) Selenium, Dissolved (SW7742)

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

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### On Site Technologies, LTD.

Date: 28-Feb-00

CLIENT:	PNM - Public Service Company of NM	
Project:	Turner 1A	CASE NARRATIVE
Lab Order:	0001023	

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.

#### P.O. BOX 2606 • FARMINGTON, NM 87499



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 28-Feb-00

Client:	PNM - Public Ser	vice Company of N	M	Clien	t Sample I	nfo: Turner 1	A
Work Order:	0001023			Clie	ent Sample	ID: 0001191	323; MW-1
Lab ID:	0001023-01A	Matrix: AQUEC	DUS	С	ollection D	ate: 1/19/200	0 1:23:00 PM
Project:	Turner 1A				COC Rec	ord: 7797	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
	ATILES BY GC/PID	sv	V8021B				Analyst: DM
Benzene		ND	0.5		µg/L	1	1/24/2000
Toluene		ND	0.5		µg/L	1	1/24/2000
Ethylbenzene		ND	0.5		µg/L	1	1/24/2000
m,p-Xylene		ND	1		µg/L	1	1/24/2000
o-Xylene		ND	0.5		µg/L	1	1/24/2000

Qua	lifi	ers:
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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

I of I

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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- Technology Blending Industry with the Environment -

Ethylbenzene

m,p-Xylene

o-Xylene



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 28-Feb-00

Client:	PNM - Public Ser	vice Company of N	JM	Client Sample	Info: Turner 1	Α.
Work Order:	0001023			Client Sampl	e ID: 0001191	337; MW-2
Lab ID:	0001023-02A	Matrix: AQUEC	DUS	Collection 1	Date: 1/19/200	00 1:37:00 PM
Project:	Turner 1A			COC Re	cord: 7797	
Parameter		Result	PQL	Qual Units	DF	Date Analyzed
AROMATIC VOL	ATILES BY GC/PID	SV	V8021B	<u> </u>		Analyst: DM
Benzene		ND	0.5	µg/L	1	1/24/2000
Toluene		ND	0.5	µg/L	1	1/24/2000

0.5

0.5

1

μg/L

µg/L

µg/L

1.7

2.1

0.7

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

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1/24/2000

1/24/2000

1/24/2000

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

I of I



LAB: (505) 325-1556

ANALYTICAL REPORT

Date: 28-Feb-00

Client: Work Order:	PNM - Public Se 0001023	ervice Company of NM	(	Client Sample Client Samp	e Info: ole ID:	Turner 1 0001191	A 1347; MW-3	
Lab ID: Project:	0001023-03A Turner 1A	Matrix: AQUEOUS		Collection COC R	Date: ecord:	1/19/200 7797	00 1:47:00 PM	
Parameter		Result	PQL (	Qual Units		DF	Date Analyzed	

AROMATIC VOLATILES BY GC/PID	SV	V8021B			Analyst: DM
Benzene	ND	0.5	µg/L	1	1/24/2000
Toluene	ND	0.5	µg/L	1	1/24/2000
Ethylbenzene	ND	0.5	µg/L	1	1/24/2000
m,p-Xylene	ND	1	µg/L	1	1/24/2000
o-Xylene	ND	0.5	µg/L	1	1/24/2000

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



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 28-Feb-00

Client: Work Order:	PNM - Public Se 0001023	ervice Company of NN	1	Clien Clie	t Sample Ir ent Sample	<b>ifo:</b> Turner 1A <b>ID:</b> 00011913	56; MW-4	<u></u>
Lab ID: Project:	0001023-04A Turner 1A	Matrix: AQUEOU	JS	C	ollection Da COC Reco	ate: 1/19/2000 ord: 7797	1:56:00 PM	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed	

AROMATIC VOLATILES BY GC/PID	sv	/8021B			Analyst: I	DM
Benzene	ND	0.5	µg/L	· 1	1/24/2000	
Toluene	ND	0.5	µg/L	1	1/24/2000	
Ethylbenzene	ND	0.5	µg/L	1	1/24/2000	
m,p-Xylene	ND	1	µg/L	1	1/24/2000	
o-Xylene	ND	0.5	µg/L	1	1/24/2000	

Qualifiers:

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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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

l of l



LAB: (505) 325-1556

#### ANALYTICAL REPORT

Date: 28-Feb-00

Client:	PNM - Public Ser	vice Company of N	M	Client	Sample I	1fo: Turner 1	A
Work Order:	0001023			Clie	nt Sample	<b>ID:</b> 0001191	415; MW-5
Lab ID:	0001023-05A	Matrix: AQUE	SUC	Co	llection D	ate: 1/19/200	0 2:15:00 PM
Project:	Turner 1A				COC Rec	ord: 7797	
Parameter		Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOL	ATILES BY GC/PIE	S S	N8021B				Analyst: DM
Benzene		ND	0.5		µg/L	1	1/24/2000
Toluene		ND	0.5		µg/L	1	1/24/2000
Ethylbenzene		1.7	0.5		µg/L	1	1/24/2000
m,p-Xylene		2.1	1		µg/L	1	1/24/2000
o-Xvlene		0.7	0.5		ua/L	1	1/24/2000

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

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- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

1 of 1

AGZ Laboratories, Inc.

#### CASE NARRATIVE

February 18, 2000

Client:On-Site Technologies, LTD.Date Rec'd:1/21/00Matrix:GroundwaterSDG#:L26197Lab Nos.:L26197-01 through L26197-02

#### Sample Receipt

ACZ Laboratories, Inc. (ACZ) received two groundwater samples from On-Site Technologies, LTD. on January 21, 2000. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

#### Sample Analysis:

The sample was analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports. The following anomalies were noted during analysis:

1. None.

Holding Times:

All analysis was performed within the applicable EPA recommended holding times.

If you have any questions please do not hesitate to call me at (800) 334-5493.

Scott Gustin, Project Manager

ACZ						•	Ana	llytic	al Resul	ts
4CZ Laboratories, Ir	nc.				Lab Sam	ple ID:	L26197-0	1		
2773 Downhill Drive	?				Client Sam	ple ID:	0001023-	01B		
Steamboat Springs, (	CO 80487				Client Proj	ect ID:				
(800) 334-5493					ACZ Rep	ort ID:	RG11145	9		
On Site Technol	ogies, LTD.				Date Sa	mpled:	01/19/200	00 1:23:	00 PM	
612 E Murray D	r				Date Re	ceived:	01/21/200	00		
Farmington, NM	1 87499				Date Re	ported:	02/03/200	00		
David Cox						-				
	Turner	1A; 0001191	1323 MW-1	₩S.	Sample	Matrix:	Ground W	Vater		
Metals Analysis				·						
Parameter		EPA Method		Ré	sult Qual	Units	MDL	PQL	Date .	Analyst
Arsenic, dissolved		M206.2 GFAA			U	mg/L	0.001	0.005	2/2/2000	ms
Selenium, dissolved		SM 3500-Se C,	AA-Hydride		U	mg/L	0.001	0.005	1/29/2000	ms
Wet Chemistry										
Parameter (		EPA Method		Re	sult Qual	Units	MDL.	PQL	Date	Analyst
Lab Filtration & Aci	idification	***				;			1/25/2000	laa
i		÷								

Inorganic Qualifiers (based on EPA CLP 3/90) U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

Vice President of Operations: Ralph Poulsen

Page 1 of 1

ACZ	V			<u>,                                    </u>	T	Ana	lytie	al Result	S
ACZ Laboratories, Inc.				Lab Sam	ple ID:	L26197-0	2		
2773 Downhill Drive				Client Sam	ple ID:	0001023-	02B		
Steamboat Springs, CO 804	87			Client Proj	ect ID:				
(800) 334-5493				ACZ Rep	ort ID:	RG11146	0		
On Site Technologies,	LTD.			Date Sa	mpled:	01/19/200	0 1:37:	00 PM	
612 E Murray Dr				Date Re	ceived:	01/21/200	0		
Farmington, NM 8749	99			Date Re	ported:	02/03/200	0		
David Cox					•				
Т	urner 1A; 000119133	7 MW-2	HB	Sample	Matrix:	Ground W	Vate <b>r</b>		
Metals Analysis									
Parameter	EPA Method		Result	Qual	dinits.	MDL	PQL	Date	nalyst.
Arsenic, dissolved	M206.2 GFAA		0.003	В	mg/L	0.001	0.005	2/2/2000	ms
Selenium, dissolved	SM 3500-Se C, AA-Hydri	ide		U	mg/L	0.001	0.005	1/29/2000	ms
Wet Chemistry									
Parameter	F.P.N Method	in kante	Result	Qual	🚛 Units	MDL	PQL.	Date	Analyst
Lab Filtration & Acidificati	on ***			,	:			1/25/2000	laa
i									

Inorganic Qualifiers (based on EPA CLP 3/90)

U = Analyte was analyzed for but not detected at the indicated MDL

B = Analyte concentration detected at a value between MDL and PQL

PQL = Practical Quantitation Limit

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Vice President of Operations: Ralph Poulsen

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TECHNOLOGIES, LTD.	612 E. Murphy Dr. • P.O. I LAB: (505) 325-56	3ox 2606 • Farming 67 • FAX: (505) 32	ton, NM 87 5-6256	499	÷							r
Purchase Order No.:	Job No.			0.	Name		Maureen G	annon	Title			
Name Denver Beau	den f			TA T S	Company		NM Gas S	services				T
C Company PNM Gas Se	irvices Dep	ot. 324-3763		רד ורד רד	<b>Mailing Add</b>	ress	Alverado S	quare, M	ail Stop 04	80		
HI S C Address 603 W. Elm :	Street			าร 38	City, State,	diz	Albuquerq	ue, NM 87	158			
City, State, Zip Farmington,	NM 87401			1 <b>1</b> 1	felephone (	40.	05-848-29	74	Telefax N	ło.		
Sampling Location:				s J			ANAL	YSIS REC	NESTED		I	
F-Torque 40				er o iner:	¥c		$\vdash$					<u></u>
Sampler All	nark S.	,		dmuh istrio(	Br							
SAMPLE IDENTIFICATIO	Z	SAMPLE MAT	RIX PRES.	)	US OF						LAB ID	
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Relinauished by:	ă	ate/Time		Receive	d by:				ä	ate/Time		<b></b> r
Method of Shipment:	V			Rush	0	4-48 Hour	s 10 W	/orking Da	ays Special	Instructior	IS:	
Authorized by: Annel OAD	Belice Date 5	20/22/			<u>, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>				-	Results to to both p	be sent artles.	
(Client Signature Must Accort	ipany Request)	•										
	Distribut	ion: White - On Site Ye	How . LAB P	ink - Sample	r Goldenrod -	Client						