

3R - 320

REPORTS

DATE:

1997

April 15, 1997

Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505



RE: 1997 SAN JUAN BASIN ANNUAL GROUNDWATER REPORT

Dear Bill:

PNM is pleased to submit the 1997 Annual Groundwater Report on Unlined Surface Impoundments in the San Juan Basin. Pursuant to PNM's Groundwater Management Program for Unlined Surface Impoundment Closures, the report details the ongoing investigation/remedial activities at unlined surface impoundments having groundwater contamination as identified by PNM. A list of groundwater sites reported in this document is provided below.

Cozzens B1
Florance 32A
Florance 40
Florance 44
Florance 47X
Florance 124
Hampton 4M
Honolulu Loop-Line Drip
Jacques 2A
Kaufmann 1
Mangum 1E
McClanahan A2E
McClanahan 22
McCoy A1A
Reid 16 Drip
Templeton 1E
Zachry 18E

RECEIVED

APR 16 1997

Environmental Bureau
Oil Conservation Division

PNM plans to request closure of two of the above sites, the Florance 124 and the Templeton 1E, in our April 30, 1997 filing of the San Juan Pit Closure Reports to the OCD Santa Fe office. We did not report on our newest groundwater site, the Sammons 2, since this was discovered in the second quarter of 1997. If you have any questions regarding the contents of the report, please contact me at (505) 241-2974.

Sincerely,

A handwritten signature in cursive script that reads "Maureen Gannon".

Maureen Gannon
Project Manager

Attachment

cc: Denver Bearden, PNMGS
Denny Foust, OCD-Aztec Office
Robin Prisk, WFS

**PNM 1997 San Juan Basin Groundwater Report
April 15, 1997**

Prepared for:

**New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505**

Prepared by:

**Public Service Company of New Mexico
Environmental Services Department
Alvarado Square - MS 0408
Albuquerque, New Mexico 87158**

PNMGS Well Site: **Hampton 4M**

Groundwater Site Summary Report

Quarter/Year: 4/96 & 1/97

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

Operator: Burlington Resources
Sec: 13 **Twn:** 30N **Rng:** 11W **Unit:** D
Canyon: Hampton Arroyo

Vulnerable Class: Original
OCD Ranking: 40
Lead Agency: NMOCD

Topo Map: previously submitted
Well Completion Diagram: Figure 1
Site Map with Analytical Results: Figure 2
Groundwater Contour Map: Figure 3 (January 1996)
Hydrograph: NA
Analytical Results: attached

Activities for Previous Two Quarters (Oct. - Dec. 1996 & Jan. - Mar. 1997):

On December 16, 1996, PNM conducted drilling at the Hampton 4M well site to determine the vertical extent of hydrocarbon contamination in soil beneath PNM's former pit. During drilling, groundwater was encountered at approximately 28 feet and a monitoring well, MW-2, was installed in the area of PNM's former pit. At the time of installation, the PNM field crew found evidence of free product in the soil boring. A groundwater sample taken from the new well contained a benzene concentration of 3840 ppb and a total benzene, toluene, ethylbenzene and xylenes (BTEX) concentration of 20620 ppb. PNM notified OCD in writing of groundwater contamination at the site on January 13, 1997. On January 28, PNM returned to the site to gauge the water level in MW-2 and discovered approximately 4 feet of free-phase floating product in the well. On January 31, 1997, PNM installed two up-gradient wells in an attempt to locate the source of the free product. Water level and product measurements were taken in each of the three monitoring wells at this time. PNM conducted groundwater sampling in the two up-gradient wells for chemical analyses of benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8020. Sampling was performed in strict compliance with EPA protocol. PNM hand delivered the samples to OnSite Technologies, Farmington, New Mexico.

As part of the January 31 investigation to locate the source of free product on site, PNM also collected samples of various product sources at the site for chemical fuel analysis. These sources included:

- Burlington Resources "Dakota" and "Mesa Verde" product tanks
- WFS separator discharges of "Dakota" and "Mesa Verde" fluids
- MW-2 monitoring well

Sampling was performed in strict compliance with EPA protocol. Fingerprint analysis was conducted on each product sample by Southern Petroleum Laboratory, Houston, Texas.

On February 4, 1997, PNM hosted OCD and Burlington Resources onsite to discuss possible options for addressing contamination at the site.

Results:

Figure 1 presents the Hampden 4M site map with BTEX analytical results. Figure 2 provides a groundwater contour map for the site in February 1997. The direction of groundwater flow is northwesterly beneath the site. From the results, PNM determined that MW-3, the well down-gradient from Burlington Resources' equipment and up-gradient from PNM's former equipment, is contaminated. MW-4, located cross-gradient from the direction of groundwater flow, is clean.

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: Hampton 4M (continued)

Fingerprinting of the various sources of free product on site revealed that there is a marked similarity between the free product discovered in MW-2 and the Burlington Resources Dakota product tank. A hardcopy of the fuel analysis is attached.

Future Actions:

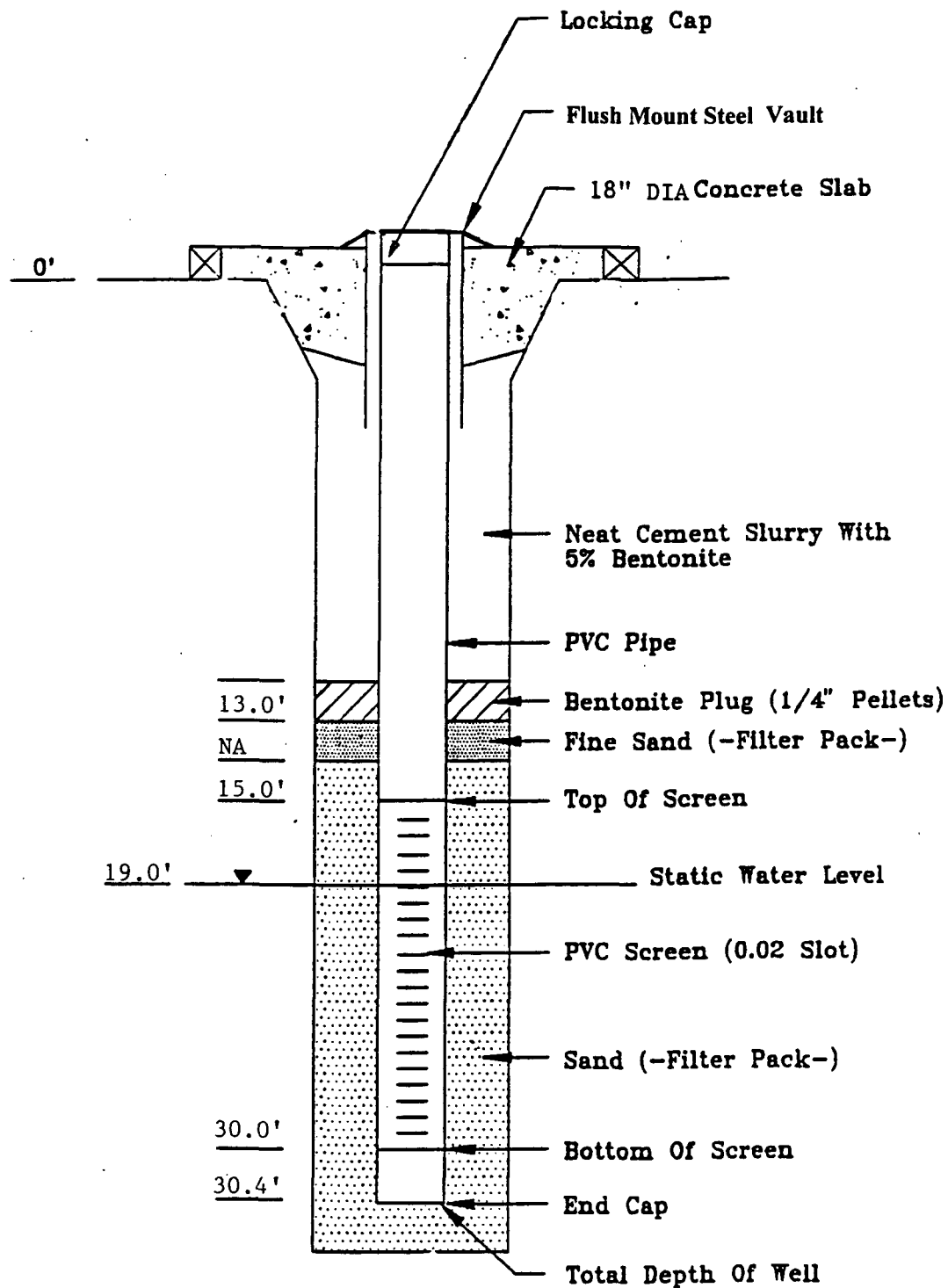
Based upon the fuel analysis, PNM believes the free product in MW-2 is coming from an on site source other than resulting from our previous activities at the site. The fuel analysis conducted on the product in MW-2 does not resemble typical drip product and may be the result of malfunctioning equipment and/or operations upstream of our former separator(s). Therefore, PNM will conduct no further activity at the site other than gauging the product and water levels in each well until further notice from OCD.

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



CLIENT: PNM	
DATE:	REV. NO.: 0
AUTHOR: M.D.G.	DRAWN BY: M.P.
CK'D BY: M.D.G.	FILE: .DWG

Figure 1
Well Completion Diagram

Residence
~ 1000 ft.

Figure 2. Hampton 4M Site Map with Analytical Results
(Concentration in ppb)

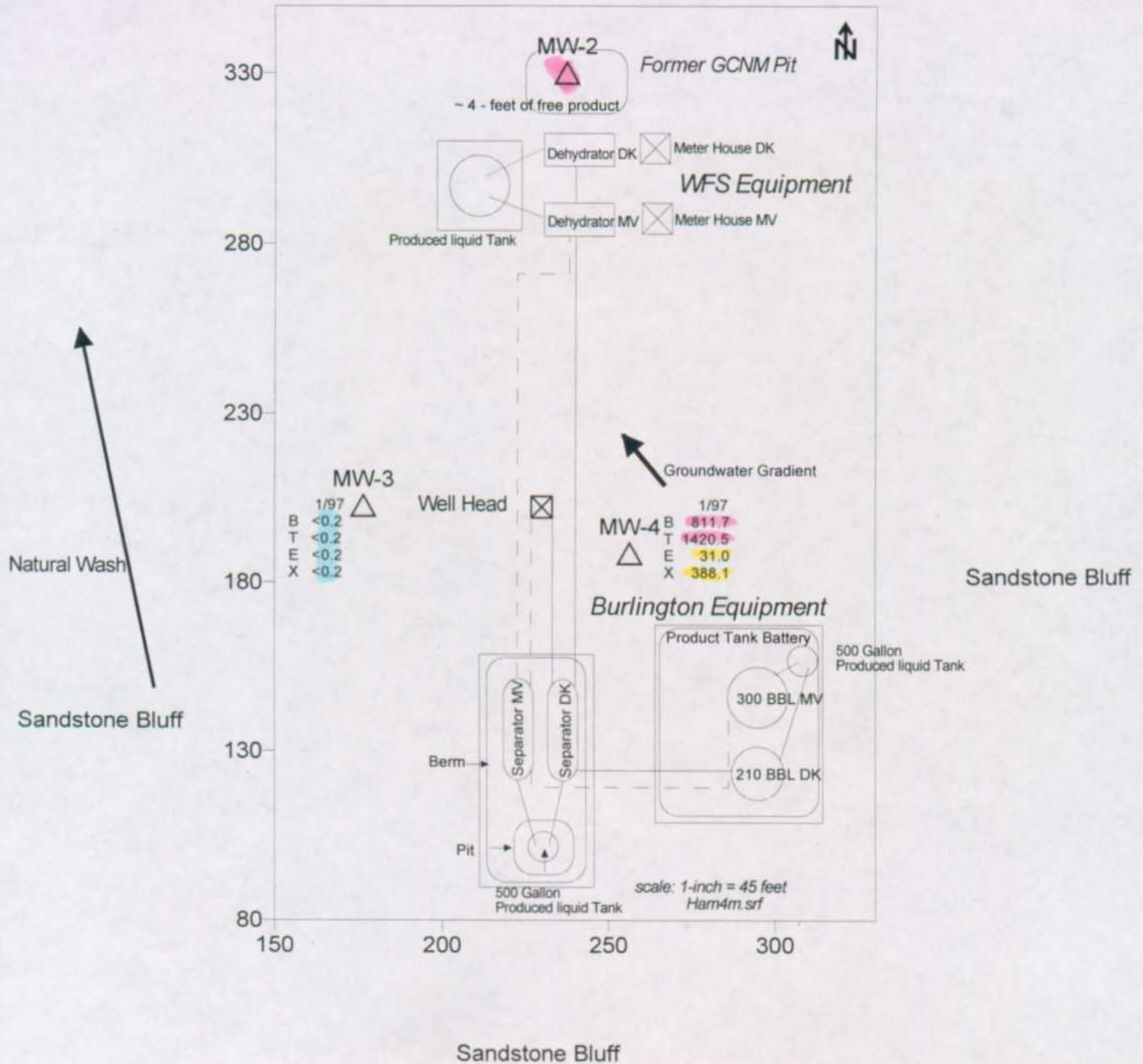
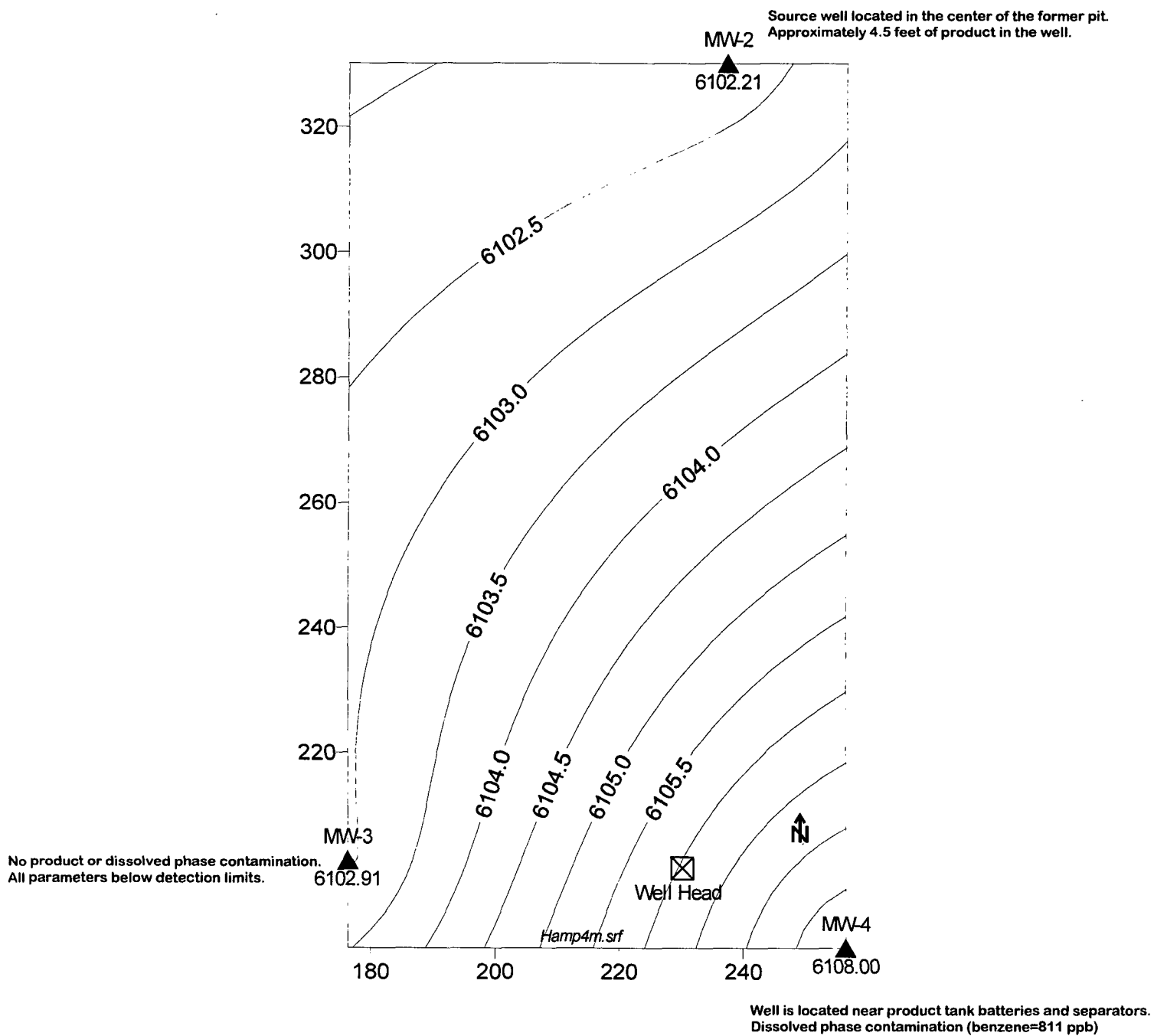


Figure 3. Hampton 4M Groundwater Contour Map (January 1997)



OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *3-Feb-97*
COC No.: *5735*
Sample No.: *13616*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Hampton 4M*
Project Location: *9701311500; MW-3*
Sampled by: *MS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *31-Jan-97* Time: *15:00*
Date: *3-Feb-97*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Benzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i><0.2</i>		<i>ug/L</i>

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

Approved by: *[Signature]*
Date: *2/3/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

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

Date: *3-Feb-97*
COC No.: *5735*
Sample No.: *13617*
Job No.: *2-1000*

Project Name: *PNM Gas Services - Hampton 4M*
Project Location: *9701311530; MW-4*
Sampled by: *MS*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *31-Jan-97* Time: *15:30*
Date: *3-Feb-97*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Benzene</i>	<i>811.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>1420.5</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>31.0</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>303.8</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>84.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>2651.4</i>		<i>ug/L</i>

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

Approved by: *[Signature]*
Date: *2/3/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 3-Feb-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes in Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.2	4	15%
Toluene	ppb	20.0	19.6	2	15%
Ethylbenzene	ppb	20.0	20.0	0	15%
m,p-Xylene	ppb	40.0	39.0	3	15%
o-Xylene	ppb	20.0	19.7	1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	92	90	(39-150)	1	20%
Toluene	95	93	(46-148)	1	20%
Ethylbenzene	97	95	(32-160)	1	20%
m,p-Xylene	94	92	(35-145)	1	20%
o-Xylene	95	94	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
13616-5735	97				
13617-5735	96				

S1: Fluorobenzene

(R)

P.O. BOX 2606 • FARMINGTON, NM 87499

- TECHNOLOGY BLENDING INDUSTRY WITH THE ENVIRONMENT -

FEB-12-1997 16:11 FROM SOUTHERN PETROLEUM LAB. I TO 15053256256 P.03



HOUSTON LABORATORY
6880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. 9702166-01A

Company: On Site Technologies
ID: B MV TANK 9701311300
Date: 01/31/97 @ 13:00

1 Burlington
Mesa Verde Tank (300 BBL)

ATTN: David Cox

Product

COLOR: Medium Straw
SP. GR. 0.7560
@ 60 F

ODOR: Fuel
API 55.65
@ 60 F

CARBON RANGE C₂ - C₂₅

PARAFFIN 21.856 Wt. %
ISOPARAFFINS 28.044 Wt. %
NAPHTHENICS 29.688 Wt. %
AROMATICS 15.863 Wt. %
OLEFINS 4.155 Wt. %
UNKNOWN 0.395 Wt. %
2,2,4-TRI 0.011 Wt. %
METHYLPENTANE

MAJOR RANGE C₆ - C₉

N-HEXANE 2.707 Wt. %
BENZENE 0.614 Wt. %
ETHYL BENZENE 0.493 Wt. %
TOLUENE 6.874 Wt. %
META XYLENE 3.182 Wt. %
PARA XYLENE 1.049 Wt. %
ORTHO XYLENE 0.868 Wt. %
XYLENES 5.099 Wt. %

RESEARCH OCTANE 71.34

LEAD NA

MTRK NA

C₁₇ 0.206 Wt. %

PRISTANE 0.076 Wt. %

NAPHTHALENE 0.078 Wt. %

1-METHYL 0.013 Wt. %

NAPHTHALENE

EDB NA

EDC NA

ETHANOL NA

C₁₈ 0.139 Wt. %

PHYTANE 0.029 Wt. %

2-METHYL 0.077 Wt. %

NAPHTHALENE

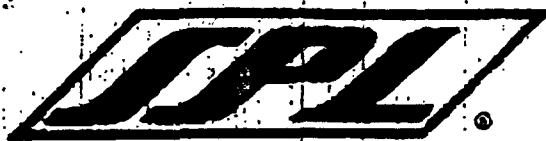
GASOLINE RANGE: C₄, C₅, INDICATORS: 2,2,4-TRI; NIDE; OLEFINS, LEAD

DIESEL RANGE: C₇, C₂₀ INDICATORS: NO OLEFINS, PRISTANE, PHYTANE

CONDENSATE RANGE: C₂-C₂₅+INDICATORS: NO OLEFINS, LIGHT & HEAVIES

HEAVY OIL: C₂₀+

COMMENTS:



HOUSTON LABORATORY
8860 INTERCHANGE DRIVE
HOUSTON, TEXAS 77064
PHONE (713) 860-0901

Certificate of Analysis No. 9702166-02A

Company: On Site Technologies
ID: B DK TANK 9701311330
Date: 01/31/97 @ 13:30

*2 Burlington Dakota
210 BBL Product Tank*

ATTN: David Cox

COLOR: Clear
SP. GR. 0.7427
@ 60 F

ODOR: Fuel
API 59.01
@ 60 F

CARBON RANGE C₂ - C₁₇
PARAFFIN 25.817 Wt. %
ISOPARAFFINS 28.530 Wt. %
NAPHTHENICS 25.421 Wt. %
AROMATICS 15.525 Wt. %
OLEFINS 4.034 Wt. %
UNKNOWN 0.673 Wt. %
2,2,4-TRI ND Wt. %
METHYLPENTANE

MAJOR RANGE C₆ - C₉
N-HEXANE 3.394 Wt. %
BENZENE 0.691 Wt. %
ETHYL BENZENE 0.379 Wt. %
TOLUENE 4.418 Wt. %
META XYLENE 3.273 Wt. %
PARA XYLENE 1.097 Wt. %
ORTHO XYLENE 0.909 Wt. %
XYLENES 5.279 Wt. %

RESEARCH OCTANE 70.49
LEAD NA
MTBE NA
C₁₇ 0.014 Wt. %
PRISTANE ND Wt. %
NAPHTHALENE 0.114 Wt. %
1-METHYL 0.019 Wt. %
NAPHTHALENE

EDB NA
EDC NA
ETHANOL NA
C₁₈ ND Wt. %
PHYTANE ND Wt. %
2-METHYL 0.061 Wt. %
NAPHTHALENE

— GASOLINE RANGE: C₄-C₁₃ INDICATORS: 2,2,4-TMP; MTBE; OLEFINS, LEAD
— DIESEL RANGE: C₇-C₂₀ INDICATORS: NO OLEFINS, PRISTANE, PHYTANE
— CONDENSATE RANGE: C₂-C₂₅+INDICATORS: NO OLEFINS, LIGHT & HEAVIES
— HEAVY OIL: C₂₀+

COMMENTS:



HOUSTON LABORATORY

6880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Certificate of Analysis No. 9702166-03A

Company: On Site Technologies
 ID: P DK SEP 9701311400
 Date: 01/31/97 @ 14:00

3

PNM Dakota Separator

ATTN: David Cox

COLOR: Clear
 SP. GR. 0.7073
 @ 60 F

ODOR: Fuel
 API 68.54
 @ 60 F

CARBON RANGE $C_1 - C_{12}$
 PARAFFIN 29.130 Wt. %
 ISOPARAFFINS 34.558 Wt. %
 NAPHTHENICS 24.411 Wt. %
 AROMATICS 9.447 Wt. %
 OLEFINS 2.453 Wt. %
 UNKNOWNNS 0.000 Wt. %
 2,2,4-TRI ND Wt. %
 METHYLPENTANE

MAJOR RANGE $C_5 - C_8$
 N-HEXANE 7.720 Wt. %
 BENZENE 1.351 Wt. %
 ETHYL BENZENE 0.216 Wt. %
 TOLUENE 4.073 Wt. %
 META XYLENE 1.798 Wt. %
 PARA XYLENE 0.608 Wt. %
 ORTHO XYLENE 0.461 Wt. %
 XYLENES 2.867 Wt. %

RESEARCH OCTANE 69.81
 LEAD NA
 MTBE NA
 C_{17} ND Wt. %
 PRISTANE ND Wt. %
 NAPHTHALENE ND Wt. %
 1-METHYL ND Wt. %
 NAPHTHALENE

EDB NA
 EDC NA
 ETHANOL NA
 C_{18} ND Wt. %
 PHYTANE ND Wt. %
 2-METHYL ND Wt. %
 NAPHTHALENE

— GASOLINE RANGE: $C_4 - C_{13}$ INDICATORS: 2,2,4-TMP; MTBE; OLEFINS, LEAD

— ~~SEBSOL RANGE:~~ $C_7 - C_{20}$ INDICATORS: NO OLEFINS, PRISTANE, PHYTANE

— CONDENSATE RANGE: $C_2 - C_{25}+$ INDICATORS: NO OLEFINS, LIGHT & HEAVIES

— HEAVY OIL: $C_{20}+$

COMMENTS:

FEB-12-1997 16:14

FROM SOUTHERN PETROLEUM LAB. 1 TO

15053256256 P.08



HOUSTON LABORATORY
8800 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 680-0901

Certificate of Analysis No. 9702166-04A

Company: On Site Technologies
ID: P MV Sep 9701311430
Date: 01/31/97 @ 14:30

PNM Yusa Verde Separator

ATTN: David Cox

COLOR: Dark
SP. GR. 0.7464
@ 60 F

ODOR: Fuel
API 58.08
@ 60 F

CARBON RANGE C₁ - C₁₄

PARAFFIN 19.506 Wt. %
ISOPARAFFINS 27.365 Wt. %
NAPHTHENICS 34.240 Wt. %
AROMATICS 14.775 Wt. %
OLEFINS 3.986 Wt. %
UNKNOWN 0.128 Wt. %
2,2,4-TRI 0.017 Wt. %
METHYLPENTANE

MAJOR RANGE C₆ - C₉

N-HEXANE 2.843 Wt. %
BENZENE 0.622 Wt. %
ETHYL BENZENE 0.280 Wt. %
TOLUENE 9.195 Wt. %
META XYLENE 2.116 Wt. %
PARA XYLENE 0.702 Wt. %
ORTHO XYLENE 0.578 Wt. %
XYLENES 3.396 Wt. %

RESEARCH OCTANE 67.03
LEAD NA
MTBE NA
C₁₇ ND Wt. %
PRISTANE ND Wt. %
NAPHTHALENE ND Wt. %
1-METHYL ND Wt. %
NAPHTHALENE

EDB NA
EDC NA
ETHANOL NA
C₁₈ 0.006 Wt. %
PHYTANE ND Wt. %
2-METHYL 0.009 Wt. %
NAPHTHALENE

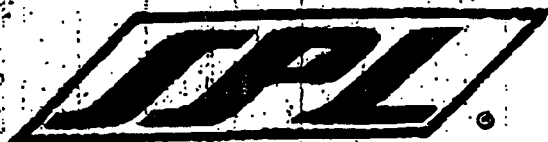
— GASOLINE RANGE: C₄-C₁₃ INDICATORS: 2,2,4-TMP; MTBE; OLEFINS, LEAD
— DIESEL RANGE: C₇-C₂₀ INDICATORS: NO OLEFINS, PRISTANE, PHYTANE
— CONDENSATE RANGE: C₂-C₂₅+INDICATORS: NO OLEFINS, LIGHT & HEAVIES
— HEAVY OIL: C₂₀+

COMMENTS:

FEB-12-1997 16:15

FROM SOUTHERN PETROLEUM LAB. I TO

15053256256 P.10



HOUSTON LABORATORY
8800 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 680-0901

Certificate of Analysis No. 9702166-05A

Company: On Site Technologies
ID: MW-2 9701311445
Date: 01/31/97 @ 14:45

5

Monitoring Well #2

ATTN: David Cox

COLOR: Light Straw
SP. GR. 0.7495
@ 60 F

ODOR: Fuel
API 57.29
@ 60 F

CARBON RANGE $C_3 - C_{17}$ MAJOR RANGE $C_6 - C_9$

PARAFFIN 25.352 Wt. %
ISOPARAFFINS 28.727 Wt. %
NAPHTHENICS 24.739 Wt. %
AROMATICS 16.229 Wt. %
OLEFINS 4.084 Wt. %
UNKNOWN 0.868 Wt. %
2,2,4-TRI ND Wt. %
METHYLPENTANE

N-HEXANE 3.435 Wt. %
BENZENE 0.642 Wt. %
ETHYL BENZENE 0.358 Wt. %
TOLUENE 4.102 Wt. %
META XYLENE 2.272 Wt. %
PARA XYLENE 1.092 Wt. %
ORTHO XYLENE 0.934 Wt. %
XYLENES 5.298 Wt. %

RESEARCH OCTANE 70.49
LEAD NA
MTBE NA
 C_{17} 0.021 Wt. %
PRISTANE ND Wt. %
NAPHTHALENE 0.147 Wt. %
1-METHYL 0.026 Wt. %
NAPHTHALENE

EDB NA
EDC NA
ETHANOL NA
 C_{18} ND Wt. %
PHYTANE ND Wt. %
2-METHYL 0.081 Wt. %
NAPHTHALENE

— GASOLINE RANGE: $C_4 - C_{13}$ INDICATORS: 2,2,4-TMP; MTBE; OLEFINS, LEAD
— DIESEL RANGE: $C_7 - C_{20}$ INDICATORS: NO OLEFINS, PRISTANE, PHYTANE
— CONDENSATE RANGE: $C_2 - C_{25}$ INDICATORS: NO OLEFINS, LIGHT & HEAVIES
— HEAVY OIL: $C_{20}+$

COMMENTS:

[illegible]



January 13, 1997

Mr. William Olson
Hydrogeologist
Oil Conservation Division
2040 So. Pacheco
Santa Fe, New Mexico 87505

RE: NOTIFICATION OF GROUNDWATER CONTAMINATION AT THE HAMPTON 4M WELL SITE

Dear Bill:

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, section 1-203, PNM hereby provides written notification of groundwater contamination at the Hampton 4M well site, located in section 13, township 30 North, range 11 West, unit letter D. A topographic map showing the location of the site is provided as an attachment. The operator is Burlington. This letter follows verbal notification provided to you on Tuesday January 7, 1997 (M. Gannon, PNM to B. Olson, OCD).

On December 16, 1996, groundwater was encountered at approximately 28 feet while conducting vertical extent soil boring. A 2-inch, schedule 40, PVC monitoring well with 15 feet of 0.01 inch screen was placed in the annulus 10 feet below and 5 feet above the soil/water interface. The annulus was backfilled with 10-12 silica sand one foot above the screened interval with a one foot bentonite seal. Clean fill material was then backfilled to the surface. After purging three casing volumes, field personnel collected a groundwater sample for BTEX 8020 analysis. The groundwater sample was delivered to Envirotech Labs, in Farmington, New Mexico, for laboratory analysis. A hardcopy of the analytical results is attached. A summary of the analytical results is provided below:

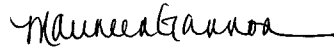
Component	Units	WQCC Stds.	Groundwater Sample
Benzene	ppb	10	3,840
Toluene	ppb	750	7,960
Ethylbenzene	ppb	750	896
Xylenes	ppb	620	7,920
Total BTEX	ppb		20,620

Bold type indicates a WQCC exceedance.

Hampton 4M
1/13/97
Page 2

This letter serves as written notification of groundwater impact at the Hampton 4M. PNM will conduct future activities at the site pursuant to PNM's Groundwater Management Plan. If you have any questions, please call me at (505) 241-2974. Thank you.

Sincerely,
PNM



Maureen Gannon
Project Manager

s/gaspits/hampt4m.doc

Attachment

cc: Colin Adams, PNM
Denver Bearden, PNMGS
Denny Foust, OCD-Aztec Office
Leigh Gooding, WFS
Toni Ristau, PNM
Craig Boch, Burlington

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

**EPA METHOD 8020
AROMATIC VOLATILE ORGANICS**

Client:	Public Service Co. of NM.	Project #:	93108-02
Sample ID:	TB #1	Date Reported:	12-18-96
Chain of Custody:	5035	Date Sampled:	12-16-96
Laboratory Number:	A842	Date Received:	12-16-96
Sample Matrix:	Water	Date Analyzed:	12-17-96
Preservative:	HgCl₂ & Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	3,840	10	1.8
Toluene	7,960	10	1.7
Ethylbenzene	896	10	1.5
p,m-Xylene	5,600	10	2.2
o-Xylene	2,320	10	1.0
Total BTEX	20,620		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	101 %
	Bromofluorobenzene	98 %

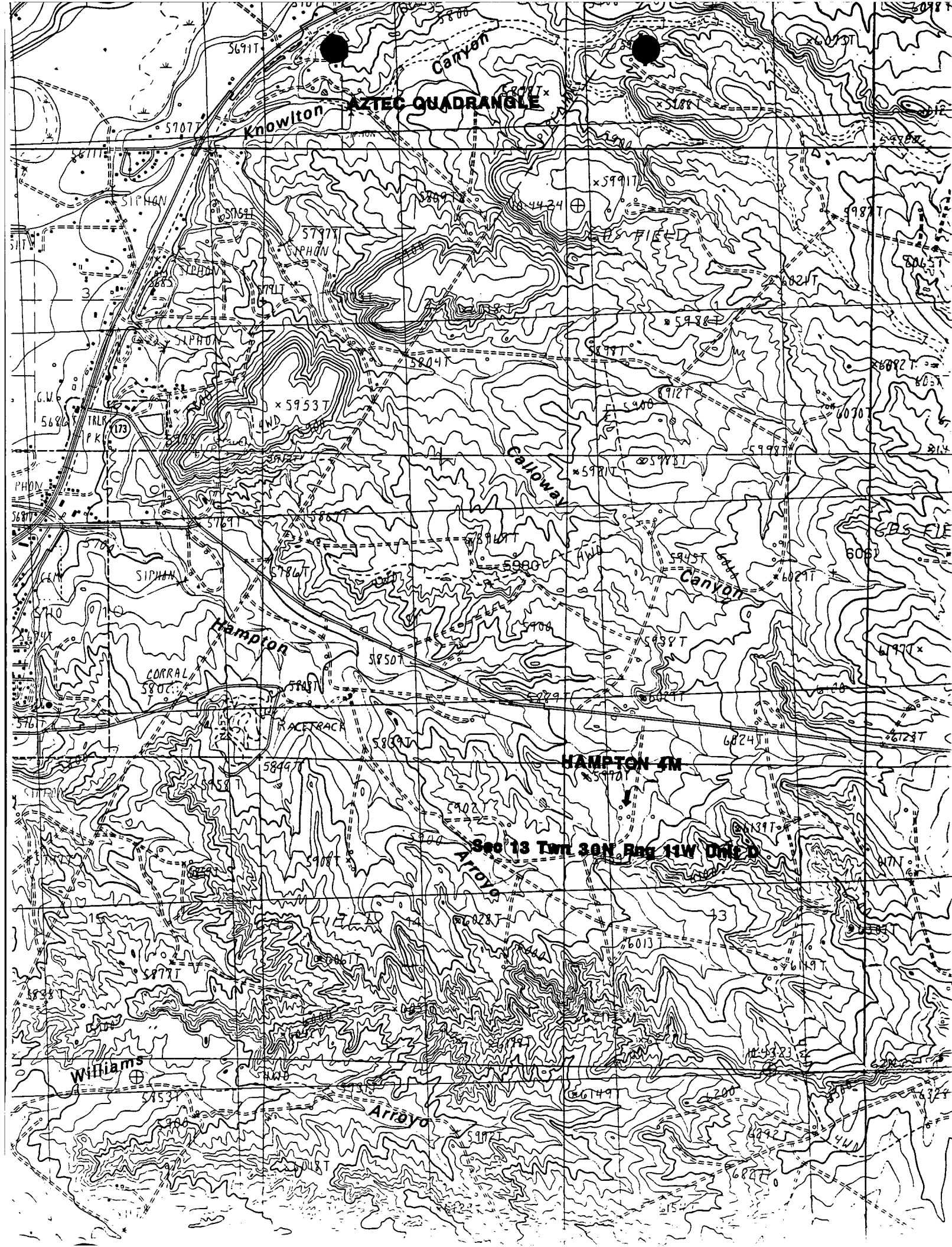
References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: 2.1 Miles South on CR 2585, Hampton #4M (@ GW).

Robert L. Quinn
Analyst

Stacy W. Bender
Review





State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF
NEW MEXICO
OIL
CONSERVATION
DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 1542	Date 1/7/97
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Originating Party

Other Parties

Maureen Cannon - PNM

Bill Olson - Envir. Bureau
(voice mail)

Subject

Ground Water Contamination - Hampton #4 N well site
Jacquez #2A well site

Discussion

Notification of ground water contamination during pit closure activities at:

Hampton #4 N (Burlington well site dehy pit) - unit D sec 13, T30N, R11W
- depth to water = 28'
- Benzene = 4000 ppb, BTEX = 20,000 ppb

Jacquez #2A (Amoco well site dehy pit) - unit D sec 25, T30N, R9W
- depth to water = 30'
- Benzene = 1600 ppb, BTEX = 15,000 ppb

Conclusions or Agreements

Distribution

Signed

Bill Olson

files

Denny Faust - O&P A&T ac