

3R - 319

REPORTS

DATE:

2001

3R319



Environmental Services
187 County Road 4980
Bloomfield, New Mexico 87413
(505) 632-4409 (office)
(505) 632-4405 (fax)

March 20, 2002

Mr. William Olson
Hydrologist
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

RECEIVED

APR 04 2002

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RE: 2001 GROUND WATER SUMMARY REPORT

Dear Mr. Olson:

Enclosed for your review is the 2001 Ground Water Summary Report. The report presents monitoring data for eighteen sites having petroleum hydrocarbon impacted ground water, which resulted from the past use of unlined surface impoundments. The sites included in the report are listed in Table 1.

In 2001, three sites met the required remediation standards and were closed with OCD approval. The sites, listed in Table 2, achieved clean closure through a combination of contaminant source removal actions and monitored natural attenuation. Ground water cleanup objectives at each site were met in roughly three years, or less.

Of the eighteen active sites, five have accumulations of LNAPL in one or more monitoring well. In December 2001, the LNAPL accumulations were removed from these wells to evaluate LNAPL recovery rates and to augment the natural attenuation process. In 2002, passive LNAPL collection devices will be deployed or manual LNAPL removal events will be scheduled at some of the sites.

The remaining thirteen active sites either contain concentrations of dissolved BTEX in excess of cleanup standards or have met cleanup standards but have not yet demonstrated four consecutive clean quarters. Pursuant to discussions on the subject with OCD, Williams intends to implement various methods to accelerate the attenuation at select sites. These augmentation methods will be incorporated into an addendum to the Ground Water Management plan.

Table 2. List of Sites Closed in 2001

Count	Site Name	Unit Letter	Section	Township	Range	Longitude	Latitude	OCD Initial Notification	Status
1	Albright #4 Drip	F	22	29N	10W	-107.868451	36.715299	9-Jul-99	Approved; Wells Abandoned
2	Miles Federal 1E Drip	N	5	26N	7W	-107.602489	36.510939	23-Jun-97	Approved; Wells Abandoned
3	Randleman 1	K	13	31N	11W	-107.945067	36.896329	9-May-97	Pending OCD Approval

Site Summary Report

Site Name: Grenier 4A

Reporting Period: 2001

Location: Unit M, Sec 7, Twn 31N, Rng 11W

Canyon: Estes Arroyo

Operator: Burlington

Vulnerable Class:

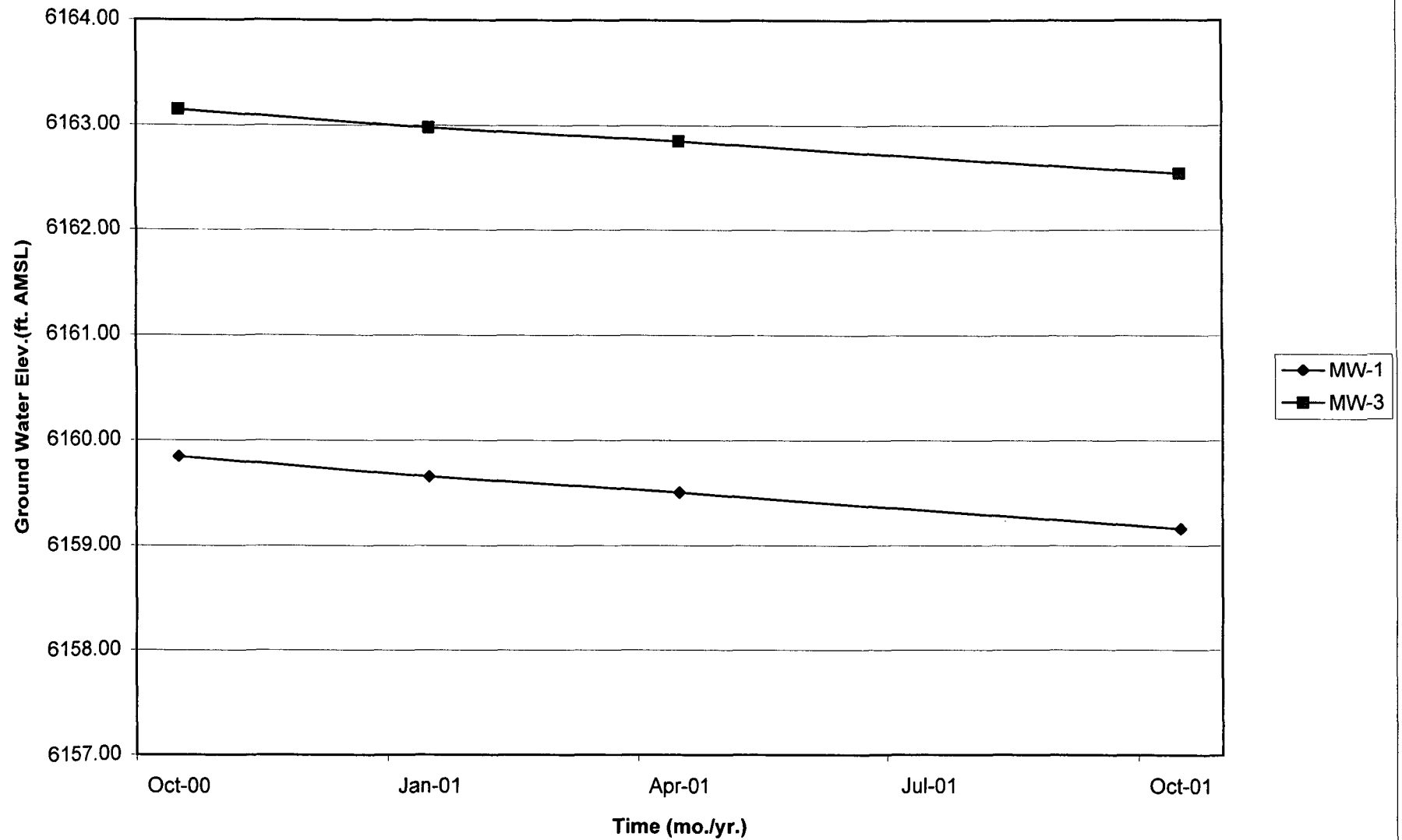
OCD Ranking: 0

Lead Agency: NMOCD

Status Narrative

This site has five monitoring wells, with six quarters of ground water monitoring completed to date. In January 2000, extensive secondary soil remediation was conducted in the area of PNM's former dehydrator pit, which resulted in removal of monitoring wells MW-2 and MW-4. Three new wells (MW-5,-6,-7) were also installed at this time. MW-5 replaced the source area well MW-2, and MW-6 and MW-7 serve as downgradient sentinel wells.

Grenier 4A Hydrograph



Analytical Data Summary

Site Name:
Grenier 4A

Reporting Period:
7/1/00 To 12/31/01

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/l
MW-1						
	10/26/00	123726OCT00	<1	<1	<1	1.20
	4/26/01	114526APR01	<1	<1	<1	<1
	10/8/01	152308OCT01	<1.0	<2.0	<2.0	<2.0
MW-3						
	10/26/00	130626OCT00	<1	<1	<1	<1
	4/26/01	120326APR01	<1	<1	<1	<1
MW-5						
	10/26/00	125326OCT00	<1	<1	8.65	1.75
	1/5/01	123105JAN01	67.1	<1	3.96	<1
	4/26/01	115526APR01	147	1.46	3.25	1.46
	10/8/01	153808OCT01	18	<2.0	<2.0	<2.0
MW-6						
	10/26/00	133126OCT00	<1	<1	<1	<1
	1/5/01	124405JAN01	<1	<1	<1	<1
	4/26/01	122026APR01	1.99	1.44	<1	2.59
	10/8/01	152808OCT01	<1.0	<2.0	<2.0	<2.0
MW-7						
	10/26/00	131826OCT00	<1	<1	<1	<1
	1/5/01	125505JAN01	<1	<1	<1	<1
	4/26/01	121326APR01	<1	<1	<1	<1
	10/8/01	153508OCT01	<1.0	<2.0	<2.0	<2.0

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0010872

SENT WILLIAMS FIELD SERVICES
TO: 187 CNTY RD #4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/GRENIER 4A

DATE REPORTED: 11/06/00
DATE COLLECTED: 10/26/00
DATE RECEIVED: 10/31/00

Reference Fraction:0010872-01A
Sample ID: GRNR4A-UG-MW-1
Sample Date Collected: 10/26/0012:37:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	11/02/00	MB
TOLUENE		ND	UG/L	1.0	11/02/00	MB
ETHYLBENZENE		ND	UG/L	1.0	11/02/00	MB
TOTAL XYLENES		1.20	UG/L	1.0	11/02/00	MB
BFB (SURROGATE)		121	125	75		

ND=NONE DETECTED
PQL=PRACTICAL QUANTITAION LIMIT
SU=STANDARD UNITS
B=DETECTED IN METHOD BLANK

APPROVED BY: Terry Koester
TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0010872

SENT WILLIAMS FIELD SERVICES
 TO: 187 CNTY RD #4980
 BLOOMFIELD, NM 87413
 JIM STRUHS
 PROJECT: WES/GRENIER 4A

DATE REPORTED: 11/06/00
 DATE COLLECTED: 10/26/00
 DATE RECEIVED: 10/31/00

Reference Fraction: 0010872-03A
 Sample ID: GRNR4A-DG-MW-3
 Sample Date Collected: 10/26/0013:06:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	11/02/00	MB
TOLUENE		ND	UG/L	1.0	11/02/00	MB
ETHYLBENZENE		ND	UG/L	1.0	11/02/00	MB
TOTAL XYLENES		ND	UG/L	1.0	11/02/00	MB
BFB (SURROGATE)		121	125	75		

ND=NONE DETECTED
 L=PRACTICAL QUANTITAION LIMIT
 SU=STANDARD UNITS
 B=DETECTED IN METHOD BLANK

APPROVED BY: Terry Koester
 TERRY KOESTER
 LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0010872

SENT WILLIAMS FIELD SERVICES
TO: 187 CNTY RD #4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/GRENIER 4A

DATE REPORTED: 11/06/00
DATE COLLECTED: 10/26/00
DATE RECEIVED: 10/31/00

Reference Fraction:0010872-02A

Sample ID: GRNR4A-SA-MW-5

Sample Matrix: WATER

Sample Date Collected: 10/26/0012:53:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	11/02/00	MB
TOLUENE		ND	UG/L	1.0	11/02/00	MB
ETHYLBENZENE		8.65	UG/L	1.0	11/02/00	MB
TOTAL XYLENES		1.75	UG/L	1.0	11/02/00	MB
BFB (SURROGATE)		121	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITAION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:

Terry Koester
TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S , I N C .

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0010872

SENT WILLIAMS FIELD SERVICES
TO: 187 CNTY RD #4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/GRENIER 4A

DATE REPORTED: 11/06/00
DATE COLLECTED: 10/26/00
DATE RECEIVED: 10/31/00

Reference Fraction: 0010872-05A

Sample ID: GRNR4A-CG-MW-6

Sample Matrix: WATER

Sample Date Collected: 10/26/00 13:31:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	11/02/00	MB
TOLUENE		ND	UG/L	1.0	11/02/00	MB
ETHYLBENZENE		ND	UG/L	1.0	11/02/00	MB
TOTAL XYLENES		ND	UG/L	1.0	11/02/00	MB
BFB (SURROGATE)		117	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITATION LIMIT

SC=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:

Terry Koester
TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0010872

SENT WILLIAMS FIELD SERVICES
 TO: 187 CNTY RD #4980
 BLOOMFIELD, NM 87413
 JIM STRUHS
 PROJECT: WES/GRENIER 4A

DATE REPORTED: 11/06/00
 DATE COLLECTED: 10/26/00
 DATE RECEIVED: 10/31/00

Reference Fraction:0010872-04A

Sample ID: GRNR4A-DG-MW-7

Sample Matrix: WATER

Sample Date Collected: 10/26/0013:18:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	11/02/00	MB
TOLUENE		ND	UG/L	1.0	11/02/00	MB
ETHYLBENZENE		ND	UG/L	1.0	11/02/00	MB
TOTAL XYLENES		ND	UG/L	1.0	11/02/00	MB
BFB (SURROGATE)		121	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITAION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:

Terry Koester
 TERRY KOESTER
 LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0101172

SENT WILLIAMS GAS PIPELINE
TO: 187 COUNTY ROAD # 4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/OSHEA IM-GRN4A-DVSI

DATE REPORTED: 02/08/01
DATE COLLECTED: 01/05/01
DATE RECEIVED: 01/09/01

Reference Fraction: 0101172-05A

Sample ID: GRNR4A-SA-MW5

Sample Matrix: WATER

Sample Date Collected: 01/05/01 12:31:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		67.1	UG/L	1.0	01/10/01	MB
TOLUENE		ND	UG/L	1.0	01/10/01	MB
ETHYLBENZENE		3.96	UG/L	1.0	01/10/01	MB
TOTAL XYLENES		ND	UG/L	1.0	01/10/01	MB
BFB (SURROGATE)		124	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITATION LIMIT

=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:

Terry Koester
TERRY KOESTER
LABORATORY DIRECTOR

PK

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0101172

SENT WILLIAMS GAS PIPELINE
TO: 187 COUNTY ROAD # 4980
BLOOMFIELD, NM 87413
JIM STRUHS

DATE REPORTED: 02/08/01
DATE COLLECTED: 01/05/01
DATE RECEIVED: 01/09/01

PROJECT: WES/OSHEA IM-GRN4A-DVSI

Reference Fraction: 0101172-04A

Sample ID: GRNR4A-CG-MW6

Sample Matrix: WATER

Sample Date Collected: 01/05/01 12:44:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	01/10/01	MB
TOLUENE		ND	UG/L	1.0	01/10/01	MB
ETHYLBENZENE		ND	UG/L	1.0	01/10/01	MB
TOTAL XYLENES		ND	UG/L	1.0	01/10/01	MB
BFB (SURROGATE)		124	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITAION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:

TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S , I N C .

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0101172

SENT WILLIAMS GAS PIPELINE
TO: 187 COUNTY ROAD # 4980
BLOOMFIELD, NM 87413
JIM STRUHS

DATE REPORTED: 02/08/01
DATE COLLECTED: 01/05/01
DATE RECEIVED: 01/09/01

PROJECT: WES/OSHEA IM-GRN4A-DVSI

Reference Fraction: 0101172-03A

Sample ID: GRNR4A-DG-MW7

Sample Matrix: WATER

Sample Date Collected: 01/05/01 12:55:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	01/10/01	MB
TOLUENE		ND	UG/L	1.0	01/10/01	MB
ETHYLBENZENE		ND	UG/L	1.0	01/10/01	MB
TOTAL XYLENES		ND	UG/L	1.0	01/10/01	MB
BFB (SURROGATE)		120	125	75		

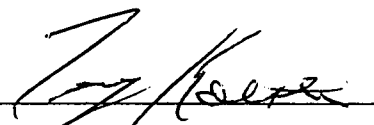
ND=NONE DETECTED

=PRACTICAL QUANTITATION LIMIT

SS=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:



TERRY KOESTER
LABORATORY DIRECTOR



Q W A L L A B O R A T O R I E S , I N C .

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105037

SENT WILLIAMS GAS PIPELINE
 TO: 187 COUNTY ROAD #4980
 BLOOMFIELD, NM 87413
 JIM STRUHS
 PROJECT: WES/GRANIER 4A

DATE REPORTED: 05/11/01
 DATE COLLECTED: 04/26/01
 DATE RECEIVED: 05/01/01

Reference Fraction: 0105037-03A

Sample ID: GRNR4A-UG-MW1

Sample Matrix: WATER

Sample Date Collected: 04/26/01 11:45:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	05/04/01	KKL
TOLUENE		ND	UG/L	1.0	05/04/01	KKL
ETHYLBENZENE		ND	UG/L	1.0	05/04/01	KKL
TOTAL XYLENES		ND	UG/L	1.0	05/04/01	KKL
BFB (SURROGATE)		122	125	75		

NR=NONE DETECTED

=PRACTICAL QUANTITAION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY: TERRY KOESTER

TERRY KOESTER
 LABORATORY DIRECTOR

Q

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105037

SENT WILLIAMS GAS PIPELINE
TO: 187 COUNTY ROAD #4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/GRANIER 4A

DATE REPORTED: 05/11/01
DATE COLLECTED: 04/26/01
DATE RECEIVED: 05/01/01

Reference Fraction: 0105037-05A

Sample ID: GRNR4A-DG-MW3

Sample Matrix: WATER

Sample Date Collected: 04/26/01 12:03:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	05/04/01	KKL
TOLUENE		ND	UG/L	1.0	05/04/01	KKL
ETHYLBENZENE		ND	UG/L	1.0	05/04/01	KKL
TOTAL XYLENES		ND	UG/L	1.0	05/04/01	KKL
BFB (SURROGATE)		122	125	75		

ND=NONE DETECTED

P=PRACTICAL QUANTITATION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY: TERRY KOESTER

TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S , I N C .

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105037

SENT WILLIAMS GAS PIPELINE
TO: 187 COUNTY ROAD #4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/GRANIER 4A

DATE REPORTED: 05/11/01
DATE COLLECTED: 04/26/01
DATE RECEIVED: 05/01/01

Reference Fraction: 0105037-02A

Sample ID: GRNR4A-SA-MW5

Sample Matrix: WATER

Sample Date Collected: 04/26/01 11:55:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		147	UG/L	1.0	05/04/01	KKL
TOLUENE		1.46	UG/L	1.0	05/04/01	KKL
ETHYLBENZENE		3.25	UG/L	1.0	05/04/01	KKL
TOTAL XYLENES		1.46	UG/L	1.0	05/04/01	KKL
BFB (SURROGATE)		122	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITATION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY: TERRY KOESTER

TERRY KOESTER
LABORATORY DIRECTOR



Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105037

SENT WILLIAMS GAS PIPELINE
 TO: 187 COUNTY ROAD #4980
 BLOOMFIELD, NM 87413
 JIM STRUHS
 PROJECT: WES/GRANIER 4A

DATE REPORTED: 05/11/01
 DATE COLLECTED: 04/26/01
 DATE RECEIVED: 05/01/01

Reference Fraction: 0105037-01A
 Sample ID: GRNR4A-DG-MW6
 Sample Date Collected: 04/26/01 12:20:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		1.99	UG/L	1.0	05/04/01	KKL
TOLUENE		1.44	UG/L	1.0	05/04/01	KKL
ETHYLBENZENE		ND	UG/L	1.0	05/04/01	KKL
TOTAL XYLENES		2.59	UG/L	1.0	05/04/01	KKL
BFB (SURROGATE)		90	125	75		

NONE DETECTED
 P= PRACTICAL QUANTIFICATION LIMIT
 SU= STANDARD UNITS
 B= DETECTED IN METHOD BLANK

APPROVED BY: TERRY KOESTER

TERRY KOESTER
 LABORATORY DIRECTOR

(Signature)

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105037

SENT WILLIAMS GAS PIPELINE
TO: 187 COUNTY ROAD #4980
BLOOMFIELD, NM 87413
JIM STRUHS
PROJECT: WES/GRANIER 4A

DATE REPORTED: 05/11/01
DATE COLLECTED: 04/26/01
DATE RECEIVED: 05/01/01

Reference Fraction: 0105037-04A

Sample ID: GRNR4A-DG-MW7

Sample Matrix: WATER

Sample Date Collected: 04/26/01 12:13:00

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	05/04/01	KKL
TOLUENE		ND	UG/L	1.0	05/04/01	KKL
ETHYLBENZENE		ND	UG/L	1.0	05/04/01	KKL
TOTAL XYLENES		ND	UG/L	1.0	05/04/01	KKL
BFB (SURROGATE)		114	125	75		

ND=NONE DETECTED

=PRACTICAL QUANTITATION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY: TERRY KOESTER

TERRY KOESTER
LABORATORY DIRECTOR



ORGANIC ANALYSIS REPORT

Client: Mile High Environmental
Collected: October 8, 2001
Received: October 12, 2001

Contact: Jim Struhs
Analyzed: October 19, 2001

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested: SW8260B/5030A

Lab Sample ID: L47930-01A

Field Sample ID: GRNR-UG-MW1

Site ID: Grenier 4A / JPS-101101-02

463 West 3600 South
Salt Lake City, Utah
84115

Analytical Results

MBTEXN/TPH-P

Units = mg/L

Final Dilution Factor: 1

Compound

Reporting
Limit

Amount
Detected

Benzene

0.0010

< 0.0010

Toluene

0.0020

< 0.0020

Ethylbenzene

0.0020

< 0.0020

Total Xylene

0.0020

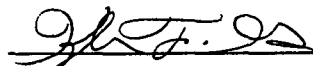
< 0.0020

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687
-mail: awal@xmission.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by:


Laboratory Supervisor

Report Date:

October 26, 2001

Page 1 of 1



ORGANIC ANALYSIS REPORT

Client: Mile High Environmental
Collected: October 8, 2001
Received: October 12, 2001

Contact: Jim Struhs
Analyzed: October 19, 2001

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested: SW8260B/5030A

Lab Sample ID: L47930-04A

Field Sample ID: GRNR-SA-MW5

Site ID: Grenier 4A / JPS-101101-02

Analytical Results

MBTEXN/TPH-P

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/L

Final Dilution Factor: 1

Compound

Reporting
Limit

Amount
Detected

Benzene

0.0010

0.018

Toluene

0.0020

< 0.0020

Ethylbenzene

0.0020

< 0.0020

Total Xylene

0.0020


< 0.0020

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687
e-mail: awal@xmission.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by:


Laboratory Supervisor

Report Date:

October 26, 2001

Page 1 of 1



ORGANIC ANALYSIS REPORT

Client: Mile High Environmental
Collected: October 8, 2001
Received: October 12, 2001

Contact: Jim Struhs
Analyzed: October 19, 2001

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested: SW8260B/5030A

Lab Sample ID: L47930-02A

Field Sample ID: GRNR-DG-MW6

Site ID: Grenier 4A / JPS-101101-02

Analytical Results

MBTEXN/TPH-P

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/L

Final Dilution Factor: 1

Compound

Reporting
Limit

Amount
Detected

Benzene

0.0010

< 0.0010

Toluene

0.0020

< 0.0020

Ethylbenzene

0.0020

< 0.0020

Total Xylene

0.0020

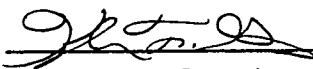
< 0.0020

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687
e-mail: awal@xmission.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by:


Laboratory Supervisor

Report Date:

October 26, 2001

Page 1 of 1



ORGANIC ANALYSIS REPORT

Client: Mile High Environmental
Collected: October 8, 2001
Received: October 12, 2001

Contact: Jim Struhs
Analyzed: October 19, 2001

AMERICAN
WEST
ANALYTICAL
LABORATORIES

Analysis Requested: SW8260B/5030A

Lab Sample ID: L47930-03A

Field Sample ID: GRNR-DG-MW7

Site ID: Grenier 4A / JPS-101101-02

Analytical Results

MBTEXN/TPH-P

463 West 3600 South
Salt Lake City, Utah
84115

Units = mg/L

Final Dilution Factor: 1

Compound

Reporting
Limit

Amount
Detected

Benzene

0.0010

< 0.0010

Toluene

0.0020

< 0.0020

Ethylbenzene

0.0020

< 0.0020

Total Xylene

0.0020

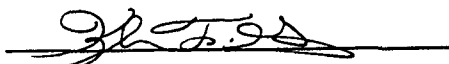
< 0.0020

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687
e-mail: awal@xmission.com

Kyle F. Gross
Laboratory Director

Peggy McNicol
QA Officer

Released by:


Laboratory Supervisor

Report Date:

October 26, 2001

Page 1 of 1