3R - 141

REPORTS

DATE:

1/31/2007

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

3R0141
3R0137

January 31, 2007

Project No. 05161-004

Mr. Glen von Gonten
NMOCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

Phone (505) 476-3440

RE: THIRD 2006-2007 QUARTERLY MONITORING REPORT

Dear Mr. von Gonten:

Enclosed please find one (1) copy of the report entitled, *Third 2006-2007 Quarterly Monitoring Report.* This report details the third quarterly monitoring for the North Hogback 12-1, North Hogback 12-4, and North Hogback 12-9 locations on the Navajo Nation in San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you should have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,
ENVIROTECH, INC.

E. Nicole Hayworth

E. Nicole Hayworth
Environmental Scientist
nhayworth@envirotech-inc.com

Enclosure: One (1) copy

DUNCAN OIL
THIRD 2006-2007 QUARTERLY MONITORING REPORT
NORTH HOGBACK 12-1, 12-4, AND 12-9
NAVAJO NATION
SAN JUAN COUNTY, NEW MEXICO

TABLE OF CONTENTS

INTRODUCTION

Envirotech, Inc. has completed the third quarterly monitoring of seven (7) monitor wells at the Duncan Oil North Hogback 12-1, 12-4, and 12-9 well sites; see ***Figure 1 Vicinity Map.*** Contaminated soil was previously excavated from the sites in September and October of 2005 and monitor wells were installed. The contaminated soil was transported to Envirotech's NMOCD permitted landfarm at Hilltop, NM, for remediation. Water samples collected at the time of excavation indicated that the three (3) sites previously referenced had residual contaminants in the groundwater above the guidelines set forth by the USEPA and adopted by the NNEPA.

GROUNDWATER SAMPLING AND ANALYSIS

Groundwater sampling was performed on seven (7) monitor wells on January 11, 2007. Prior to sampling a minimum of three (3) well volumes of water were bailed out of each well with a new disposable bailer.

Water levels were calculated from the surveying data to draw a water level map. Water levels and groundwater gradient for the North Hogback 12-1 and 12-9 are shown on ***Figure 4, North Hogback 12-1 and 12-9 Water Level Map.*** A water level map with the water gradient indicated is shown in ***Figure 5, North Hogback 12-4 Water Level Map*** for the North Hogback 12-4 location. It appears that the groundwater is moving from southwest to northeast across the 12-4 site. Water levels for the individual wells are tabulated in ***Table 1, Water Levels*** below.

Table 1: Water Levels

Name	Casing Elevation	Water Level	Water Elevation
N. Hogback 12-1 MW-1	5025.84	17.24	5008.6
N. Hogback 12-1 MW-2	5027.47	19.06	5008.41
N. Hogback 12-9 MW-1	5026.12	8.58	5017.54
N. Hogback 12-9 MW-2	5025.61	8.78	5016.83
N. Hogback 12-4 MW-1	4966.45	4.74	4961.71
N. Hogback 12-4 MW-2	4966.60	5.09	4961.51
N. Hogback 12-4 MW-3	4967.44	5.84	4961.6

North Hogback 12-9

Samples were collected from the two (2) monitor wells at the North Hogback 12-9 and analyzed for lead, manganese, and iron via USEPA Method 6010B. Results from this analysis are summarized in ***Table 2, Summary of Laboratory Metals Analysis of North Hogback 12-9*** below and laboratory certificates are presented in ***Appendix A, Laboratory Water Sample Results.***

Table 2: Summary of Laboratory Metals Analysis for North Hogback 12-9

Analyte	Monitor Well #1	Monitor Well #2	**Regulated Level**
Iron (ppm)	0.742	0.457	**1.0**
Manganese (ppm)	**0.404**	**0.553**	**0.2**
Lead (ppm)	ND	ND	**0.050**

Values in bold exceed the USEPA and NNEPA regulated level
ND – indicates analyte is below the method detection limit

Manganese is above standards for both MW-1 and MW-2. Manganese concentrations decreased from the values reported in the second quarter sampling event in MW-1 and slightly increased in MW-2; see ***Appendix B, Historical Data.***

North Hogback 12-1

Samples were collected from the two (2) monitor wells at the North Hogback 12-1 and analyzed for benzene, toluene, ethylbenzene, and total xylene (BTEX) via USEPA method 8021B. Results from this analysis are summarized in ***Table 3, Summary of Laboratory BTEX Analysis for North Hogback 12-1*** below and laboratory certificates are presented in ***Appendix A, Laboratory Water Sample Results.*** All results were below standards.

Table 3: Summary of Laboratory BTEX Analysis for North Hogback 12-1

Analyte	Monitor Well #1	Monitor Well #2	**Regulated Level**
Benzene (ppb)	ND	0.2	**5.0**
Toluene (ppb)	ND	17.6	**1,000**
Ethylbenzene (ppb)	0.2	5.0	**700**
Total Xylenes (ppb)	1.5	46.3	**10,000**

ND – indicates analyte is below the method detection limit

North Hogback 12-4

All three (3) monitor wells at this location were sampled for BTEX via USEPA method 8021B. Prior to sampling three (3) well volumes were bailed from each well. The contaminants of concern were analyzed using Method 8021B and are all below the regulated levels. A summary of the laboratory results is presented in ***Table 4, Summary of Laboratory BTEX Analysis for North Hogback 12-4*** below.

Table 4: Summary of Laboratory BTEX Analysis for North Hogback 12-4

Analyte	Monitor Well #1	Monitor Well #2	Monitor Well #3	**Regulated Level**
Benzene (ppb)	ND	ND	ND	**5.0**
Toluene (ppb)	51.2	3.5	ND	**1,000**
Ethylbenzene (ppb)	26.6	0.7	ND	**700**
Total Xylenes (ppb)	118.5	8.4	1.1	**10,000**

ND – indicates analyte is below the method detection limit

SUMMARY AND CONCLUSIONS

Envirotech has completed the third quarterly monitoring of seven (7) monitor wells at the North Hogback 12-1, 12-4, and 12-9 well sites. All of the contaminants of concern analyzed for are below the USEPA's regulated level at the North Hogback 12-4 and North Hogback 12-1 well sites.

Three (3) consecutive quarters of contaminants of concern below the regulated limit has been achieved at the North Hogback 12-4 site. The revised workplan submitted to the NNEPA and USEPA originally specified four (4) quarters of monitoring at the North Hogback sites. If written approval is received from the NNEPA and USEPA, the wells can be plugged and abandoned at the North Hogback 12-4 well site.

At the North Hogback 12-1 location, all contaminants of concern analyzed for are below the regulated limit. Envirotech recommends a minimum of two (2) additional sampling events at this site.

At the North Hogback 12-9 location, manganese was slightly higher than the regulated level in both monitor wells at 0.404 and 0.553 ppm respectively. Envirotech recommends a minimum of three (3) additional sampling events at this site.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,
ENVIROTECH, INC.

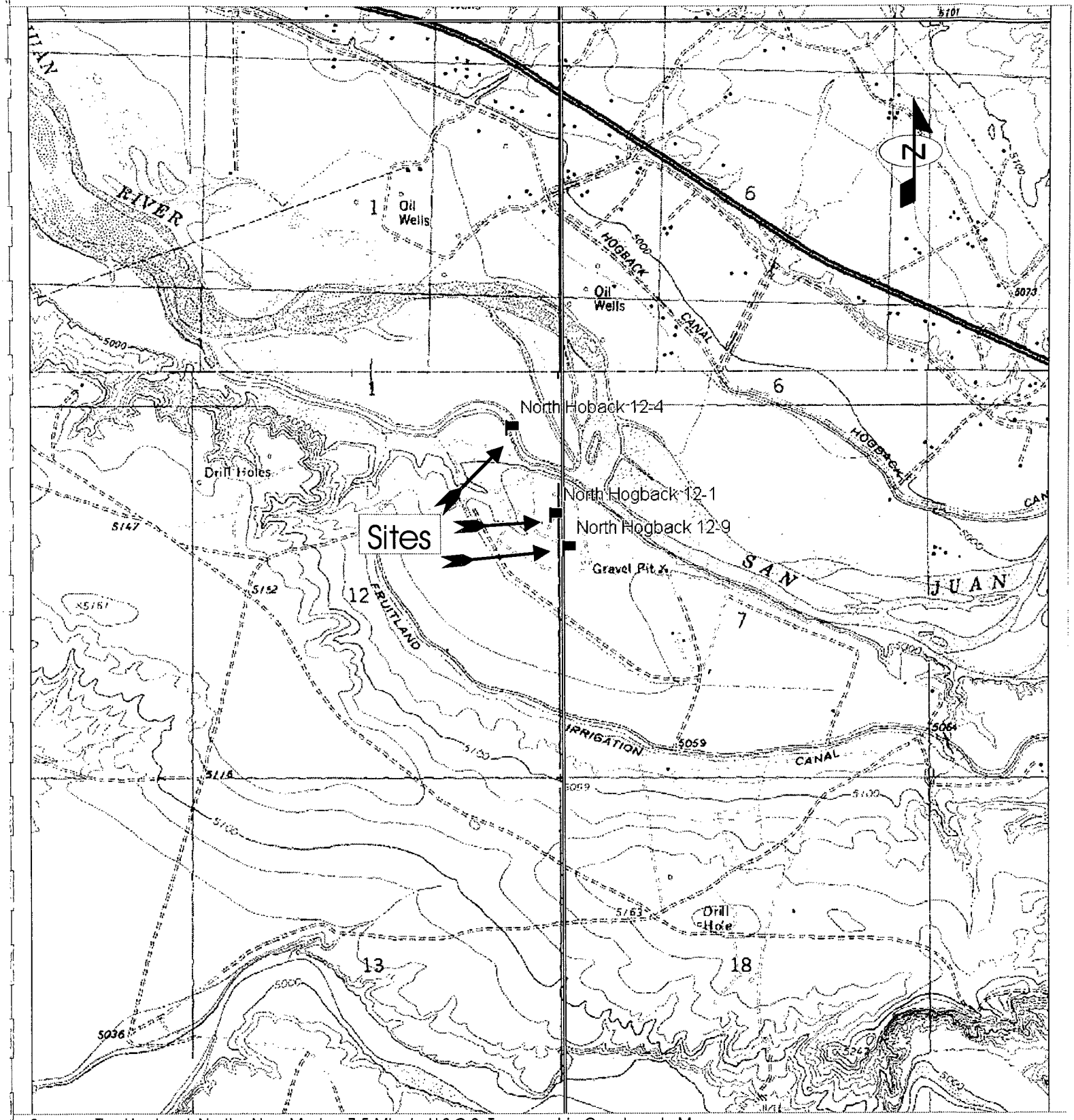
E. Nicole Hayworth
Environmental Scientist
nhayworth@envirotech-inc.com

Reviewed By:

Kyle P. Kerr
Chief Environmental Scientist
NMCES #299
kpkerr@envirotech-inc.com

Morris D. Young
President
NMCES #038
myoung@envirotech-inc.com

FIGURES



Source: The Hogback North, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map
Scale: 1:24,000 1" = 2000'

North Hogback 12-1, 12-4, & 12-9
Section 12, Township 29N, Range 16W
San Juan County, NM

PROJECT No 05161-004 | Date Drawn: 7/20/06

ENVIROTECH INC.
ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64
FARMINGTON, NEW MEXICO 87401
PHONE (505) 632-0615

Vicinity Map

Figure 1

DRAWN BY: Greg Crabtree | PROJECT MANAGER: Kyle Kerr

Duncan Oil
North Hogback
12-1 and 12-9 Site Map

SCALE:1" = 100'	FIGURE NO. 2	REV 2
PROJECT NO.05161-004		

REVISIONS

NO.	DATE	BY	DESCRIPTION
2	01/23/07	ENH	Third Quarter Sampling
1	10/16/06	GWC	Second Quarter Sampling

MAP DRWN	GWC	7/14/06	BASE DRWN	GWC	7/14/06

Legend

- Dry Hole Marker
- Monitor Well Location

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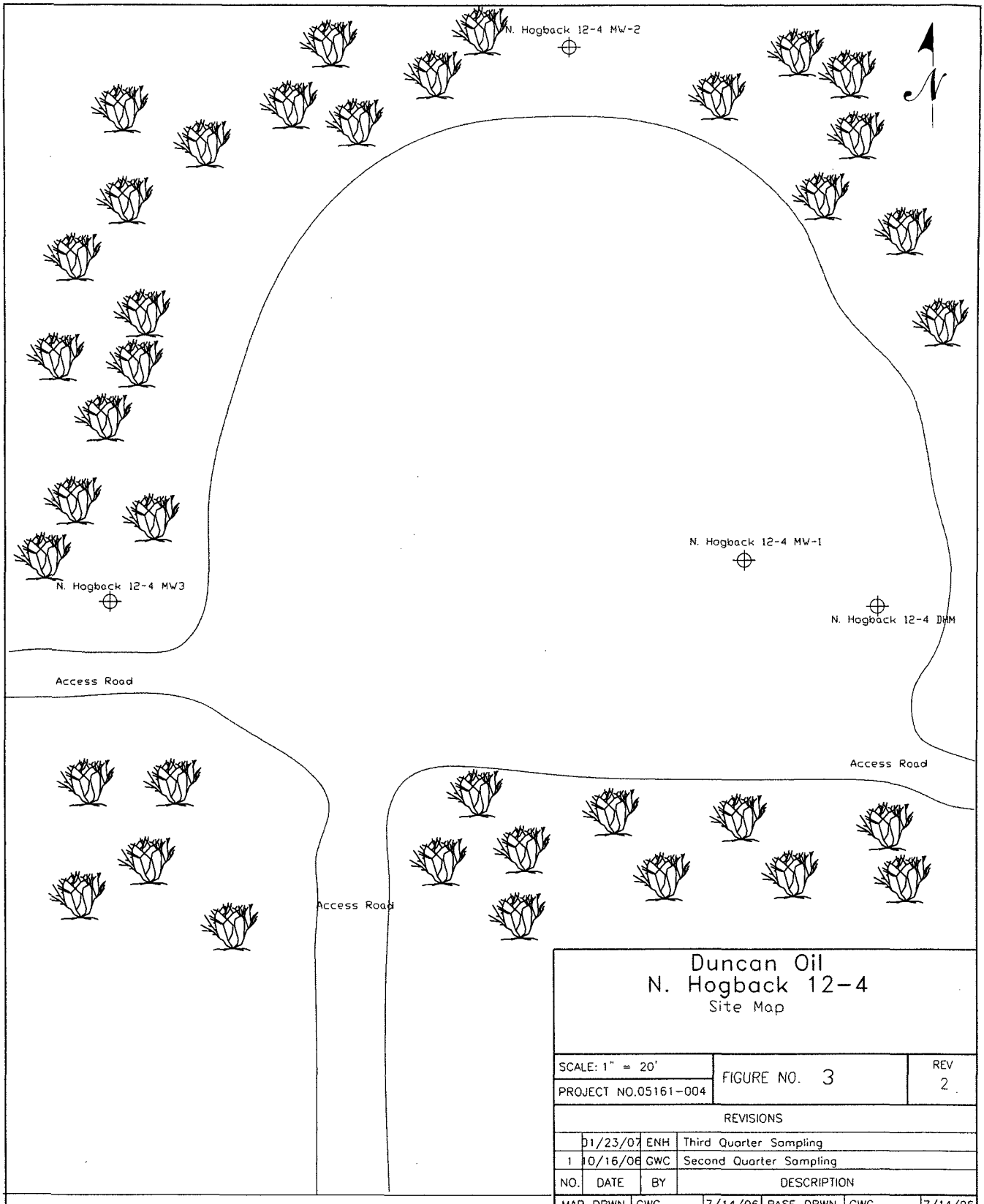

Duncan Oil
N. Hogback 12-4
Site Map

SCALE: 1" = 20'	FIGURE NO. 3	REV 2
PROJECT NO.05161-004		

REVISIONS

NO.	DATE	BY	DESCRIPTION
	01/23/07	ENH	Third Quarter Sampling
1	10/16/06	GWC	Second Quarter Sampling

MAP DRWN	GWC	7/14/06	BASE DRWN	GWC	7/14/06

Legend

- Dry Hole Marker
- Monitor Well Location

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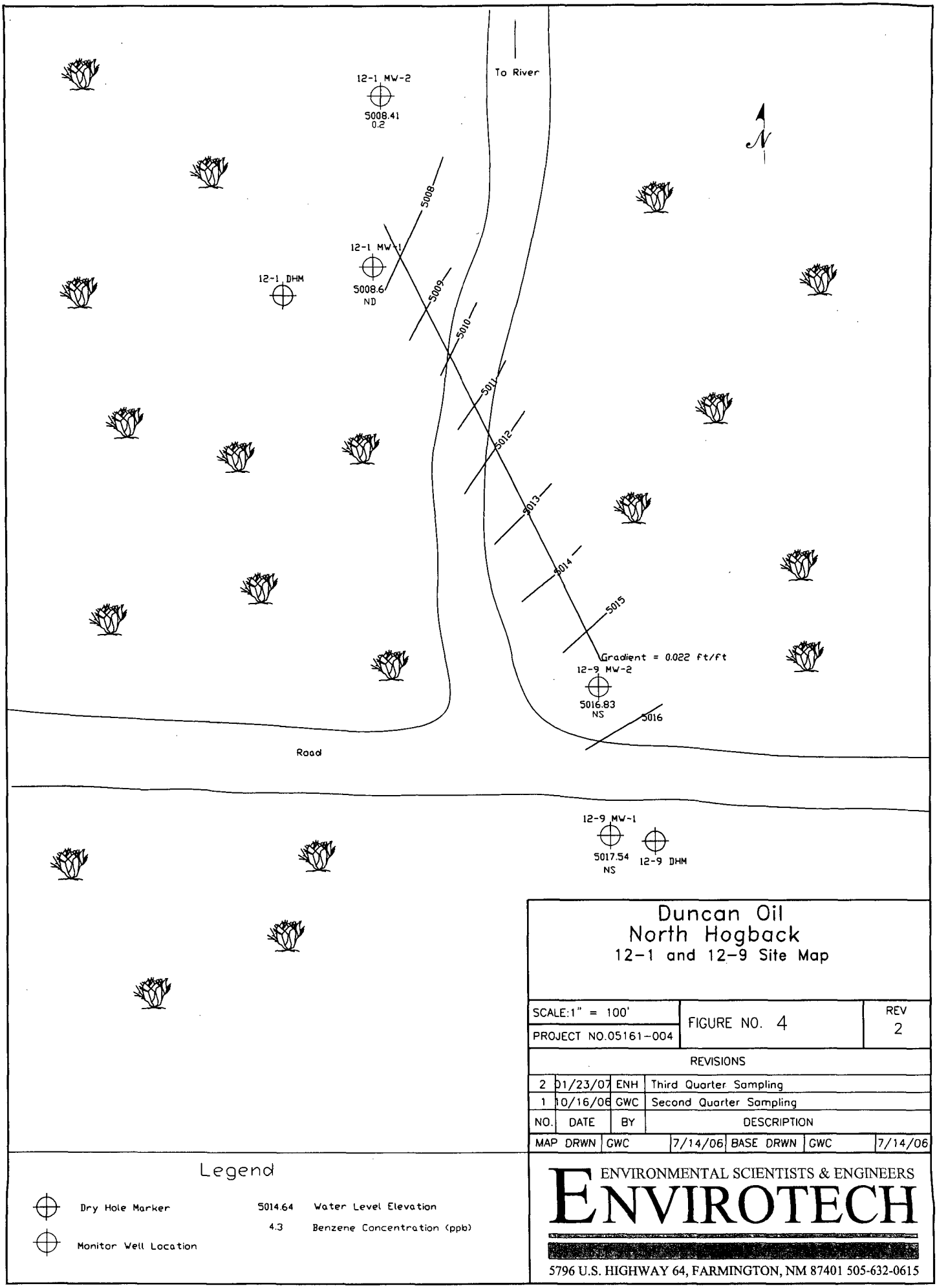

Duncan Oil
North Hogback
12-1 and 12-9 Site Map

SCALE:1" = 100'	FIGURE NO. 4	REV 2
PROJECT NO.05161-004		

REVISIONS

NO.	DATE	BY	DESCRIPTION
2	01/23/07	ENH	Third Quarter Sampling
1	10/16/06	GWC	Second Quarter Sampling

MAP DRWN	GWC	7/14/06	BASE DRWN	GWC	7/14/06

Legend

- Dry Hole Marker
- Monitor Well Location
- 5014.64 Water Level Elevation
- 4.3 Benzene Concentration (ppb)

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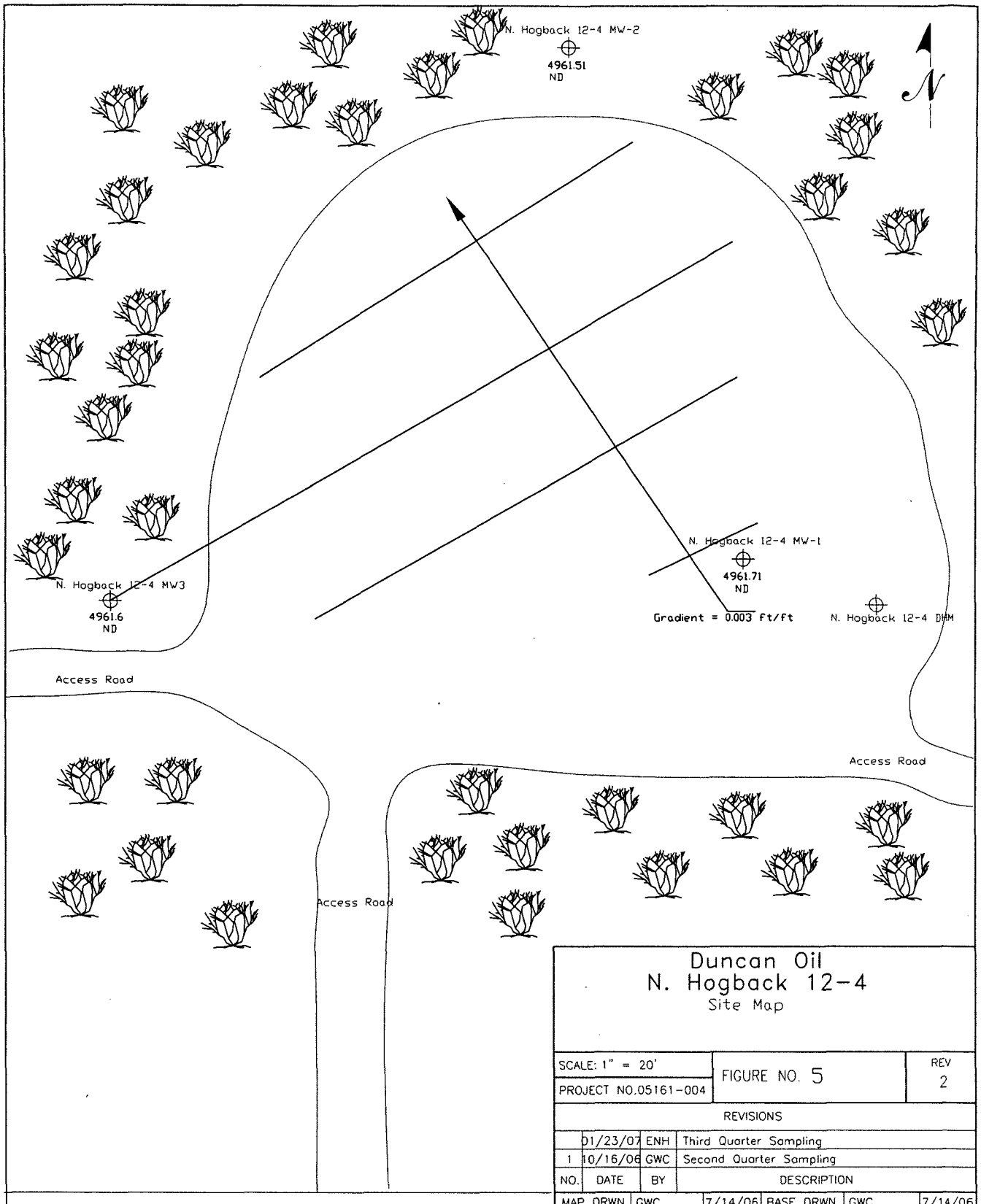

Duncan Oil
N. Hogback 12-4
Site Map

SCALE: 1" = 20'	FIGURE NO. 5	REV 2
PROJECT NO.05161-004		

REVISIONS

NO.	DATE	BY	DESCRIPTION
	01/23/07	ENH	Third Quarter Sampling
1	10/16/06	GWC	Second Quarter Sampling

MAP DRWN	GWC	7/14/06	BASE DRWN	GWC	7/14/06

Legend

- Dry Hole Marker
- Monitor Well Location
- 4958.64 Water Level Elevation
- —4959.00— Water Level Contour
- 3.1 Benzene Concentration (ppb)

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5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

APPENDIX A

Laboratory Water Sample Results

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-9 MW-1	Date Reported:	01-12-07
Laboratory Number:	39701	Date Sampled:	01-11-07
Chain of Custody:	1922	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Date Digested:	01-11-07
Condition:	Cool & Intact	Analysis Needed:	Fe, Mn, Pb

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Iron	**0.742**	**0.001**
Manganese	**0.404**	**0.001**
Lead	**ND**	**0.001**

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils. SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emmision Spectorscopy, SW-846, USEPA, December 1996.

Comments: **Hogback**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-9 MW-2	Date Reported:	01-12-07
Laboratory Number:	39702	Date Sampled:	01-11-07
Chain of Custody:	1922	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Date Digested:	01-11-07
Condition:	Cool & Intact	Analysis Needed:	Fe, Mn, Pb

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Iron	**0.457**	**0.001**
Manganese	**0.553**	**0.001**
Lead	**ND**	**0.001**

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils. SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emmision Spectorscopy, SW-846, USEPA, December 1996.

Comments: **Hogback**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS
Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	01-12-TM QA/QC	Date Reported:	01-12-07
Laboratory Number:	39684	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Fe, Mn, Pb	Date Analyzed:	01-12-07
Condition:	N/A	Date Digested:	01-11-07

Blank & Duplicate Conc. (mg/L)	Instrument Blank (mg/L)	Detection Limit	Sample (mg/L)	Duplicate (mg/L)	% Diff.	Acceptance Range
Iron	**ND**	**0.001**	**0.279**	**0.275**	**1.4%**	**0% - 30%**
Manganese	**ND**	**0.001**	**0.970**	**0.974**	**0.4%**	**0% - 30%**
Lead	***ND***	***0.001***	***ND***	***ND***	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample (mg/L)	Spiked Sample	Percent Recovery	Acceptance Range
Iron	**0.500**	**0.279**	**0.777**	**99.7%**	**80% - 120%**
Manganese	**0.500**	**0.970**	**1.45**	**98.6%**	**80% - 120%**
Lead	**0.500**	**ND**	**0.498**	**99.6%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils. SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emmision Spectorscopy, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 39684 - 39690, 39701 - 39702**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-1 MW-1	Date Reported:	01-12-07
Chain of Custody:	1922	Date Sampled:	01-11-07
Laboratory Number:	39703	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**ND**	**1**	**0.2**
Ethylbenzene	**0.2**	**1**	**0.2**
p,m-Xylene	**1.3**	**1**	**0.2**
o-Xylene	**0.2**	**1**	**0.1**
Total BTEX	**1.7**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**99.8 %**
	1,4-difluorobenzene	**99.8 %**
	4-bromochlorobenzene	**99.8 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Hogback**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-1 MW-2	Date Reported:	01-12-07
Chain of Custody:	1922	Date Sampled:	01-11-07
Laboratory Number:	39704	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**0.2**	**1**	**0.2**
Toluene	**17.6**	**1**	**0.2**
Ethylbenzene	**5.0**	**1**	**0.2**
p,m-Xylene	**37.7**	**1**	**0.2**
o-Xylene	**8.6**	**1**	**0.1**
Total BTEX	**69.1**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**99.8 %**
	1,4-difluorobenzene	**99.8 %**
	4-bromochlorobenzene	**99.8 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Hogback**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-4 MW-1	Date Reported:	01-12-07
Chain of Custody:	1922	Date Sampled:	01-11-07
Laboratory Number:	39705	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**51.2**	**1**	**0.2**
Ethylbenzene	**26.6**	**1**	**0.2**
p,m-Xylene	**93.6**	**1**	**0.2**
o-Xylene	**24.9**	**1**	**0.1**
Total BTEX	**196**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**99.8 %**
	1,4-difluorobenzene	**99.8 %**
	4-bromochlorobenzene	**99.8 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Hogback**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-4 MW-2	Date Reported:	01-12-07
Chain of Custody:	1922	Date Sampled:	01-11-07
Laboratory Number:	39706	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**3.5**	**1**	**0.2**
Ethylbenzene	**0.7**	**1**	**0.2**
p,m-Xylene	**6.8**	**1**	**0.2**
o-Xylene	**1.6**	**1**	**0.1**
Total BTEX	**12.6**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**99.8 %**
	1,4-difluorobenzene	**99.8 %**
	4-bromochlorobenzene	**99.8 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Hogback**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-004
Sample ID:	12-4 MW-3	Date Reported:	01-12-07
Chain of Custody:	1922	Date Sampled:	01-11-07
Laboratory Number:	39707	Date Received:	01-11-07
Sample Matrix:	Water	Date Analyzed:	01-12-07
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**ND**	**1**	**0.2**
Toluene	**ND**	**1**	**0.2**
Ethylbenzene	**ND**	**1**	**0.2**
p,m-Xylene	**0.8**	**1**	**0.2**
o-Xylene	**0.3**	**1**	**0.1**
Total BTEX	**1.1**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**99.8 %**
	1,4-difluorobenzene	**99.8 %**
	4-bromochlorobenzene	**99.8 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Hogback**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	01-12-BTEX QA/QC	Date Reported:	01-12-07
Laboratory Number:	39703	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-12-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	3.7029E+007	3.7141E+007	0.30%	ND	0.2
Toluene	6.4785E+007	6.4980E+007	0.30%	ND	0.2
Ethylbenzene	3.0576E+007	3.0668E+007	0.30%	ND	0.2
p,m-Xylene	1.3202E+008	1.3242E+008	0.30%	ND	0.2
o-Xylene	6.0777E+007	6.0960E+007	0.30%	ND	0.1

Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	ND	ND	0.0%	0 - 30%
Toluene	ND	ND	0.0%	0 - 30%
Ethylbenzene	0.2	0.2	0.0%	0 - 30%
p,m-Xylene	1.3	1.3	0.0%	0 - 30%
o-Xylene	0.2	0.2	0.0%	0 - 30%

Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	ND	50.0	49.9	99.8%	46 - 148
Ethylbenzene	0.2	50.0	50.1	99.8%	32 - 160
p,m-Xylene	1.3	100	101	99.8%	46 - 148
o-Xylene	0.2	50.0	50.1	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for samples 39703 - 39707**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

CHAIN OF CUSTODY RECORD

1922

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Duncan Oil	Hogback	
Sampler: GWC/ENH	Client No. 05161-004	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	6010 Lab, Magnesium, Iron	8021					Remarks
~~HOGBACK~~ 12-9 MW-1	1/11/07	1310	39701	WATER	1	✓						
12-9 MW-2		1307	39702		1	✓						
12-1 MW-1		1351	39703		2		✓					
12-1 MW-2		1400	39704		2		✓					
12-4 MW-1		1425	39705		2		✓					
12-4 MW-2		1430	39706		2		✓					
12-4 MW-3		1440	39707		2		✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Greg Crabtree	1/11/07	1335	Christine M Walters	1/11/07	1335
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

APPENDIX B

Historical Data

Historical Data

NMED Action Levels		5	1000	700	10000	1	0.20	0.05
Well No.	Sample Date	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	Iron (ppm)	Manganese (ppm)	Lead (ppm)
North Hogback 12-1 MW-1	07/20/06	NS	NS	NS	NS	NS	NS	NS
	10/13/06	4.30	2.40	3.90	12.20	NS	NS	NS
	01/11/07	ND	ND	0.20	1.50	NS	NS	NS
North Hogback 12-1 MW-2	07/20/06	NS	NS	NS	NS	NS	NS	NS
	10/13/06	**5.90**	3.00	7.10	15.80	NS	NS	NS
	01/11/07	0.20	17.60	5.00	46.30	NS	NS	NS
North Hogback 12-4 MW-1	07/20/06	1.20	5.90	23.40	16.70	NS	NS	NS
	10/13/06	ND	1.90	1.30	1.90	NS	NS	NS
	01/11/07	ND	51.20	26.60	118.50	NS	NS	NS
North Hogback 12-4 MW-2	07/20/06	1.60	1.80	1.60	8.70	NS	NS	NS
	10/13/06	3.10	1.60	2.80	6.70	NS	NS	NS
	01/11/07	ND	3.50	0.70	8.40	NS	NS	NS
North Hogback 12-4 MW-3	07/20/06	1.30	0.40	0.80	2.80	NS	NS	NS
	10/13/06	ND	ND	0.70	ND	NS	NS	NS
	01/11/07	ND	ND	ND	1.10	NS	NS	NS
North Hogback 12-9 MW-1	07/20/06	NS	NS	NS	NS	0.54	**0.28**	ND
	10/13/06	NS	NS	NS	NS	0.31	**0.50**	ND
	01/11/07					0.74	**0.40**	ND
North Hogback 12-9 MW-2	07/20/06	NS	NS	NS	NS	ND	**0.22**	ND
	10/13/06	NS	NS	NS	NS	0.22	**0.54**	ND
	01/11/07					0.46	**0.55**	ND

NS = Not Sampled
ND = Not Detected

Values in bold exceed New Mexico Water Quality Control Commission (NMWQCC) standards

APPENDIX C

Field Notes

ENVIROTECH INC.
FARMINGTON, NM 5796 HIGHWAY 64
MONITOR WELL DATA

Date: 11-Jan-07 Project No: 05161-004

Project Name: Duncan Oil Chain of Custody No: 1922

Location:

Project Manager: KPK Sampler: ENH/GWC

MONITOR WELL DATA

WELL #	TIME	pH	COND :S	TEMP EF	DEPTH TO WATER FT	TOTAL DEPTH FT	WATER COLUMN FT	BAILED WATER GAL	PRODUCT FT
12-9 MW-1	1310	7.67	1.21	13.9	8.58	21.42	13	6.5	
12-9 MW-2	1307	7.78	1.11	15.0	8.78	15.4	6.62	3.25	
12-1 MW-1	1351	6.95	2.52	18.0	17.24	21.20	4	2	
12-1 MW-2	1400	7.24	2.23	17.8	19.06	21.05	2	1	
12-4 MW-1	1425	7.74	1.61	11.7	4.74	10.01	5.27	3	
12-4 MW-2	1430	7.29	2.63	11.5	5.09	11.89	6.8	3.5	
12-4 MW-3	1440	7.74	2.41	11.7	5.84	11.39	5.55	3	

Notes: TOC = Top of Casing
Bailed = 3 well volummes:
1.25" well = 0.19 gal/ft.
2.00" well = 0.49 gal/ft.
4.00" well = 1.96 gal/ft.
Note well diameter if not one of the above.