

**NM1 -     5**

**SPILL  
REPORT**

**2007**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**RECEIVED**  
2007 JUN 27 PM 12:51

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	BASIN DISPOSAL	Contact	JOHN VOLKERDING/JIMMY BARNES
Address	200 MONTANA AVE. BLOOMFIELD, NM	Telephone No.	505-320-2840/505-486-3078
Facility Name	BASIN DISPOSAL	Facility Type	WATER DISPOSAL

Surface Owner	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
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Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release	: RAIN WATER & OIL	Volume of Release	Volume Recovered
Source of Release	: RECEIVING AREA SUMP	Date and Hour of Occurrence	Date and Hour of Discovery 5/2/07, 7AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? TO: BRANDON POWELL, BY JIMMY BARNES, 5/2/07 9AM TO: WAYNE PRICE, BY JOHN VOLKERDING, 5/2/07 11:20 PM	
By Whom? (SEE ABOVE)		Date and Hour (SEE ABOVE)	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause-of Problem and Remedial Action Taken.\*

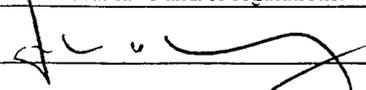
THE INVESTIGATION SHOWED THAT RAIN WATER OVERFLOWED THE RECEIVING TANK OVERFLOW SUMP ALLOWING A MIXTURE OF WATER AND OIL TO BE RELEASED. THE EXACT AMOUNT OF OIL RELEASED IS UNKNOWN, HOWEVER: THE MAXIMUM VOLUME OF OIL POSSIBLE TO HAVE BEEN RELEASED IS 22 GALLONS (0.53 bbls). THE SUMP HAD BEEN EMPTIED IN THE AFTERNOON OF MAY 2<sup>ND</sup>. THE ONLY OIL THAT WOULD HAVE BEEN PRESENT IN THE SUMP WOULD BE THAT WHICH HAD REMAINED IN THE LOADING LINE. THE LOADING LINE WAS EMPTIED THAT EVENING TO PREVENT FREEZING. THE TOTAL VOLUME OF THE LINE IS 22 GALLONS. THUS ASSUMING WORST CASE THAT THE ENTIRE LOADING LINE VOLUME WAS COMPRISED OF OIL. THE MAXIMUM OIL VOLUME THAT WOULD HAVE BEEN IN THE SUMP AND SUBSEQUENTLY RELEASED WOULD BE 22 GALLONS OR 0.53 BBLs.

THE SUMP IS BEING EMPTIED TWICE A DAY NOW, WITH AN END OF THE DAY CHECK OF THE SUMP BY THE MANAGER ON DUTY TO ENSURE THAT NO OIL REMAINS IN THE SUMP OVERNIGHT. A CONCRETE BERM WITH A GATE WILL BE PLACED IN FRONT (NORTH) OF THE SUMP WHERE THE GATE CAN BE EASILY AND QUICKLY CLOSED TO ALLOW RUN OFF WATER TO BE DIVERTED AROUND THE SUMP THEREBY PREVENTING ANY FUTURE RELEASES.

Describe Area Affected and Cleanup Action Taken.\*

PLEASE SEE ATTACHMENT A, ENVIROTECH'S REPORT DATED 6/4/07

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: JOHN VOLKERDING	Approved by District Supervisor:		
Title: GENERAL MANAGER	Approval Date:	Expiration Date:	
E-mail Address: <b>BDINC@DIGIL.NET</b>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 6/25/07	Phone: 505-320-2840		

# ENVIROTECH INC.

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

June 4, 2007

Project No. 03058-002

Basin Disposal, Inc.  
Attn: Mr. Jimmy Barnes  
200 Montana Road  
Bloomfield, New Mexico 87413

Phone: (505) 486-3078

**RE: ADDENDUM: SPILL CLEANUP REPORT AT BASIN DISPOSAL 200 MONTANA ROAD, SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Barnes:

Envirotech, Inc. has completed a spill cleanup at Basin Disposal 200 Montana Road, San Juan County, New Mexico. Previously you have received the *Spill Cleanup Report*. The following is an addendum to that report documenting the sampling in the pond and the determination from New Mexico Oil and Conservation Division (NMOCD).

## SITE ACTIVITIES

Envirotech was contracted to perform spill cleanup activities at the above referenced location. The spill traveled down a bar ditch and into a storm water retention pond. The excavation of the bar ditch and sample results are discussed in the previous report. The pond was allowed to dry out and a sample was taken per NMOCD's request at the location believed to be the deepest. The samples were transported to Envirotech's Laboratory and analyzed via USEPA Method 8021 Aromatic Volatile Organics (BTEX) and USEPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons (TPH); see *Appendix A, Laboratory Analysis*. The sample was below the most stringent NMOCD standard; see **Table 1, Laboratory Results**.

**Table 1, Laboratory Results**

Sample ID	TPH (ppm)	Benzene (ppb)	Total BTEX (ppb)
Pond Composite	3.3	3.6	136
NMOCD Regulation	100	10000	50000

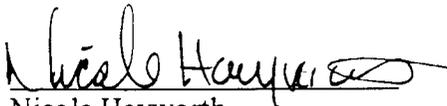
After speaking with NMOCD it was determined that this level of contamination is not of concern and excavation is not required for this pond.

**CONCLUSION**

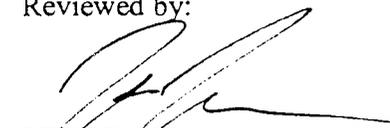
Envirotech, Inc. has completed a spill cleanup at Basin Disposal 200 Montana Road, San Juan County, New Mexico. Laboratory results show that no contamination tested for was above regulatory standards. Envirotech recommends no further action with regards to this site. Envirotech also recommends that measures need to be taken to ensure that a spill of this matter does not occur again.

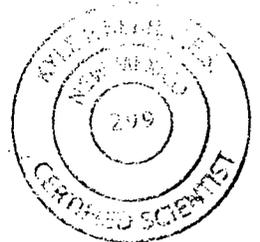
If you have any questions or comments regarding this spill cleanup, please feel free to contact us at (505) 632-0615.

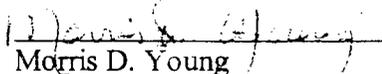
Sincerely,  
**ENVIROTECH, INC.**

  
Nicole Hayworth  
Environmental Scientist  
[nhayworth@envirotech-inc.com](mailto:nhayworth@envirotech-inc.com)

Reviewed by:

  
Kyle P. Kerr  
Senior Environmental Scientist/Manager  
NMCES #299  
[kpkerr@envirotech-inc.com](mailto:kpkerr@envirotech-inc.com)



  
Morris D. Young  
President  
NMCES #098  
[myoung@envirotech-inc.com](mailto:myoung@envirotech-inc.com)



Enclosures: Appendix A, Laboratory Analysis

Cc: Client File 03058

**Appendix A:**

Laboratory Analysis

# ENVIROTECH LABS

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

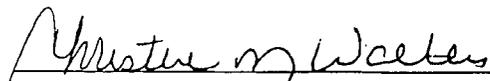
Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Composite	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	05-16-07
Chain of Custody No:	2680	Date Received:	05-16-07
Sample Matrix:	Soil	Date Extracted:	05-17-07
Preservative:	Cool	Date Analyzed:	05-17-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2.1	0.2
Diesel Range (C10 - C28)	1.2	0.1
Total Petroleum Hydrocarbons	3.3	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Basin Yard on 550 Stormwater Pond.**

  
Analyst

  
Review

# ENVIROTECH LABS

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

EPA Method 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

## Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	05-17-07 QA/QC	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-17-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0166E+003	1.0170E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.1785E+003	1.1790E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	2.1	2.0	4.8%	0 - 30%
Diesel Range C10 - C28	1.2	1.2	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	2.1	250	252	100.0%	75 - 125%
Diesel Range C10 - C28	1.2	250	250	99.6%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 41568 - 41569.

  
Analyst

  
Review

# ENVIROTECH LABS

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW.**

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Composite	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	05-16-07
Chain of Custody:	2680	Date Received:	05-16-07
Sample Matrix:	Soil	Date Analyzed:	05-17-07
Preservative:	Cool	Date Extracted:	05-17-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	3.6	1.8
Toluene	20.2	1.7
Ethylbenzene	6.5	1.5
p,m-Xylene	79.2	2.2
o-Xylene	26.0	1.0
<b>Total BTEX</b>	<b>136</b>	

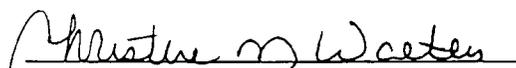
ND - Parameter not detected at the stated detection limit.

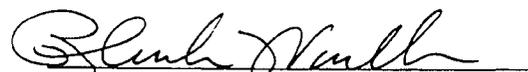
Surrogate Recoveries:	Parameter	Percent Recovery
	<b>Fluorobenzene</b>	<b>98.0 %</b>
	<b>1,4-difluorobenzene</b>	<b>98.0 %</b>
	<b>Bromochlorobenzene</b>	<b>98.0 %</b>

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Basin Yard on 550 Stormwater Pond.**

  
Analyst

  
Review

# ENVIROTECH LABS

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	05-17-BTEX QA/QC	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-17-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect Limit
		Accept. Range 0 - 15%			
Benzene	2.8840E+007	2.8898E+007	0.2%	ND	0.2
Toluene	2.8032E+007	2.8088E+007	0.2%	ND	0.2
Ethylbenzene	2.3709E+007	2.3756E+007	0.2%	ND	0.2
p,m-Xylene	4.8620E+007	4.8718E+007	0.2%	ND	0.2
o-Xylene	2.1753E+007	2.1797E+007	0.2%	ND	0.1

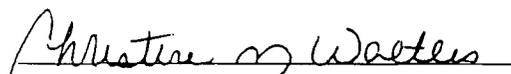
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect Limit
Benzene	3.6	3.6	0.0%	0 - 30%	1.8
Toluene	20.2	20.1	0.5%	0 - 30%	1.7
Ethylbenzene	6.5	6.5	0.0%	0 - 30%	1.5
p,m-Xylene	79.2	79.1	0.1%	0 - 30%	2.2
o-Xylene	26.0	26.1	0.4%	0 - 30%	1.0

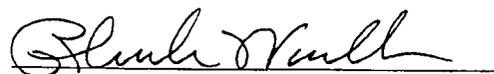
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	3.6	50.0	53.5	99.8%	39 - 150
Toluene	20.2	50.0	70.1	99.9%	46 - 148
Ethylbenzene	6.5	50.0	56.4	99.8%	32 - 160
p,m-Xylene	79.2	100	179	99.8%	46 - 148
o-Xylene	26.0	50.0	75.9	99.9%	46 - 148

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 41568 - 41569.

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

2680

<b>Client / Project Name</b> Basin Disposal 1		<b>Project Location</b> Basin Yard on 550		<b>ANALYSIS / PARAMETERS</b>				<b>Remarks</b>	
<b>Sampler:</b> G. Crabtree		<b>Client No.</b> 03058-002		<b>Sample Matrix</b> Soil		No. of Containers 1		Stormwater Pond	
<b>Sample No./ Identification</b> Composite		<b>Sample Date</b> 5/16/07		<b>Sample Time</b> 1400		No. of Containers 1		Stormwater Pond	
<b>Relinquished by: (Signature)</b> 		<b>Date</b> 5/16/07		<b>Time</b> 1445		<b>Received by: (Signature)</b> 		<b>Date</b> 5/16/07	
<b>Relinquished by: (Signature)</b> _____		<b>Relinquished by: (Signature)</b> _____		<b>Relinquished by: (Signature)</b> _____		<b>Received by: (Signature)</b> _____		<b>Date</b> _____	
<b>Relinquished by: (Signature)</b> _____		<b>Relinquished by: (Signature)</b> _____		<b>Relinquished by: (Signature)</b> _____		<b>Received by: (Signature)</b> _____		<b>Date</b> _____	
<b>ENVIROTECH INC.</b>						<b>Sample Receipt</b>			
5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615						Y <input type="checkbox"/> N <input type="checkbox"/> N/A <input type="checkbox"/>		Received Intact <input checked="" type="checkbox"/>	
						Cool - Ice/Blue Ice <input checked="" type="checkbox"/>			

District I  
1625 N. French Dr., Hobbs, NM 88240  
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Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
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with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	BASIN DISPOSAL	Contact	JOHN VOLKERDING/JIMMY BARNES
Address	200 MONTANA AVE. BLOOMFIELD, NM	Telephone No.	505-320-2840/505-486-3078
Facility Name	BASIN DISPOSAL	Facility Type	WATER DISPOSAL

Surface Owner	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release	: RAIN WATER & OIL	Volume of Release	Volume Recovered
Source of Release	: RECEIVING AREA SUMP	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	5/2/07, UNDETERMINED	5/2/07, 7AM
By Whom? (SEE ABOVE)		If YES, To Whom?	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	TO: BRANDON POWELL, BY JIMMY BARNES, 5/2/07 9AM	TO: WAYNE PRICE, BY JOHN VOLKERDING, 5/2/07 11:20 PM
		Date and Hour (SEE ABOVE)	
		If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
INITIAL INVESTIGATION SUGGESTS THAT RAIN WATER OVERFLOWED THE RECEIVING TANK OVERFLOW SUMP ALLOWING A MIXTURE OF WATER AND OIL TO BE RELEASED. A BERM WILL BE PLACED IN FRONT OF THE SUMP TO DIVERT RAINWATER RUNOFF IN ORDER TO PREVENT A RECCURANCE. PLEASE SEE ATTACHMENTS A, B, C, D, E

Describe Area Affected and Cleanup Action Taken.\*  
PLEASE SEE ATTACHMENT F, ENVIROTECH'S REPORT

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: JOHN VOLKERDING	Approved by District Supervisor:		
Title: GENERAL MANAGER	Approval Date:	Expiration Date:	
E-mail Address: BDINC@DIGIL.NET	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 5/17/07	Phone: 505-320-2840		

\* Attach Additional Sheets If Necessary

## ATTACHMENT A

### Description of Cause of Problem and Remedial Action Taken

Excerpt from Basin Disposal's Health, Safety, and Environmental Policy Manual dated August 11, 2006, Section 20, Paragraph 5.2, Spill Prevention Control and Countermeasure (SPCC) Policy

#### 20.5.2 Employee duties and recommendations

- i. No Basin Employees shall intentionally cause any spill of any oil, oil related or chemical materials at the Basin Disposal Plant.
- ii. Basin Employees shall be knowledgeable and have understanding of the operation and maintenance of Basin equipment and storage apparatuses to prevent oil discharges. Basin Employees shall be knowledgeable and have understanding of applicable pollution laws, rules and regulations.
- iii. Basin Employees working at the Basin Disposal Plant shall ensure that the risk of discharge or spill of oil, and oil-related products, reaching "navigable waters" is minimized.
- iv. Basin Employees working at the Basin Disposal Plant or on, or around, any undiked areas (e.g., pumps, tanks, cellar and pits) shall ensure a ditch or berm leading to secondary containment or reserve pit controls the area.
- v. **Basin Employees working at the Basin Disposal Plant shall make every effort to prevent any petroleum products from leaving the primary containment and from reaching "navigable waters", especially in areas or periods of heavy rain or flood.**
- vi. **In the event of a spill, Basin Employees working at the Basin Disposal Plant shall attempt to contain the spill by building a secondary basin or a diversionary structure; whichever is appropriate at the time. Spills shall be reported to the Plant Manager. Plant Managers shall notify the General Manager.** The General Manager shall request that the owner, or their authorized representative, provide such equipment as is necessary to build structures to contain the spill.
- vii. Basin Employees working at the Basin Disposal Plant shall make every effort to ensure all third party equipment used to transport and store oil is sized to accommodate any expected volumes of oil.

A. The root cause analysis identified that Items v. and vi. in the policy were not adhered to by the Basin Disposal personnel on duty.

The standing procedure during rain storms, had been for Basin Disposal personnel to construct a dirt berm to the north and west of the receiving area sump to divert runoff from entering that sump. Also, if necessary, personnel are to remove water from that sump using the water truck. Documented by the fact that no incident of this nature has occurred previously, that procedure had worked. The personnel on duty failed to follow that procedure this time. Their failure to follow procedures has been documented.

B. The root cause analysis identified, while the procedure was in place and all employees acknowledged understanding it, the procedure was not formalized in writing.

The procedure was evaluated to determine if it was adequate, modified as needed, and documented in writing.

B. The root cause analysis identified that operational controls at the facility could be enhanced and the procedure modified to provide greater assurance of preventing another occurrence.

Past practice had been to inspect and pull water from the sump daily, but generally first thing in the morning. Throughout the day, as water is received, the loading line will likely have a small accumulation of oil. During the cooler months, the loading line is drained at the end of the day to prevent freezing in that line overnight. The contents of that line go to the receiving area sump. Having the contents remain in the receiving area sump overnight, allowed for the possibility that a small amount of oil would remain in the sump overnight. It was determined that the procedure should be modified to have the sump pulled at the end of the day after the loading line was drained to ensure that no oil remained in the receiving area sump overnight. The record keeping documentation has been changed to reflect that requirement and has added a location for the person pulling the water from the sump to place the time and their initials for increased accountability.

Past practice has been to require the personnel on duty to construct a temporary dirt berm to the north and west of the receiving area sump to divert water during periods of heavy rainfall. It was determined that constructing a concrete berm instead would provide greater reliability. The concrete berm will have a pvc pipe running through the bottom to ensure that any water released by trucks during unloading will continue to flow into the sump. The PVC pipe will be equipped with caps that can be easily attached during periods of heavy rain to prevent the runoff from overflowing the receiving area sump.

ATTACHMENT B

**BASIN DISPOSAL, INC.**

**DOCUMENTATION OF UNSATISFACTORY PERFORMANCE**

Type of Notice: Written Date(s): May 2, 2006

Issuing Supervisor(s): Jimmy Barnes/John Volkerding Notice Print Date: May 7, 2006

Employee Name: Chris Sam

**Details**

Reason For This Notice: On the evening of May 1-2, 2007, the sump for the water receiving area overflowed. The resulting spill caused contamination the length of Montana Ave all the way to the receiving pond on the east side of the highway. To prevent this from occurring, Chris should have done three things: 1) alerted the Plant Manager and the Asst Manager on call, 2) constructed a temporary dirt berm in front of the tank to prevent overflow, and 3) pulled water out of the sump.

Action Taken: Due to manpower constraints, Chris was not given time off without pay. This would have been the preferred action to allow time for Chris to reflect on his commitment to performance at Basin Disposal.

Consequences or Repeat Violations: Termination

Supervisor Comments: The resulting spill cost Basin Disposal a fair amount of money, caused potential environmental damage and seriously damaged the relationship between Basin Disposal and the State of NM OGD. All of these consequences are completely unacceptable.

Employee Comments: I'm sorry

**Follow-Up Required**

Required Follow-Up Action: Modify procedures, add a signature page for procedures, and shift Asst Managers to night shift until employees are responsible.

Person Responsible for Follow-Up: John Volkerding

**Acknowledgment**

Issuing Supervisor's Signature: [Signature] Date: 5/15/07

Employee Signature: [Signature] Date: 5-15-07

*Signing this form does not indicate agreement, but only signifies that you have been informed of this action and have received a copy of this disciplinary notice. This notice is a disciplinary reprimand and any additional violations, of any type, could lead to additional disciplinary action.*

# BASIN DISPOSAL, INC.

Basin Disposal of Wastewater and Sewage  
10000 Edgewood Drive, Santa Fe, NM 87507

## DOCUMENTATION OF UNSATISFACTORY PERFORMANCE

Type of Notice: Written Date(s): May 2, 2006

Issuing Supervisor(s): Jimmy Barnes/John Volkerding Notice Print Date: May 7, 2006

Employee Name: Ed Charlie

### Details

Reason for This Notice: On the evening of May 1-2, 2007, the sump for the water receiving area overflowed. The resulting spill caused contamination the length of Montana Ave all the way to the receiving pond on the east side of the highway. To prevent this from occurring, Ed should have done three things: 1) alerted the Plant Manager and the Asst. Manager on call, 2) constructed a temporary dirt berm in front of the tank to prevent overflow, and 3) pulled water out of the sump.

Action Taken: Due to manpower constraints, Ed was not given time off without pay. This would have been the preferred action to allow time for Ed to reflect on his commitment to performance at Basin Disposal.

Consequences of Repeat Violations: Termination

Supervisor Comments: The resulting spill cost Basin Disposal a fair amount of money, caused potential environmental damage and seriously damaged the relationship between Basin Disposal and the State of NM OCD. All of these consequence are completely unacceptable.

Employee Comments: \_\_\_\_\_

### Follow-Up Required

Identified Follow-Up Action: Modify procedures, add a signature page for procedures, and shift Asst Managers to night shift and employees are responsible.

Person Responsible for Follow-Up: John Volkerding

### Acknowledgment

Issuing Supervisor's Signature: \_\_\_\_\_ Date: 5/7/07

Employee Signature: \_\_\_\_\_ Date: 5/7/07

*Signing this form does not indicate agreement, but only signifies that you have been informed of this action and have received a copy of this disciplinary notice. This notice is a disciplinary reprimand and any additional violations, of any type, could lead to additional disciplinary action.*

**ATTACHMENT C, UPDATED RECORD KEEPING**

**BASIN DISPOSAL, INC.**  
**DAILY AIR AND WATER INSPECTION**  
 WEEK BEGINNING \_\_\_\_\_

YEAR 2007 MONTH \_\_\_\_\_

AMBIENT AIR WIND SPEED/DIRECTION  
 4 AM READINGS, NOTE INITIALS AND TIME  
 8 PM READINGS, NOTE INITIALS AND TIME

LOADING SUMP EMPTIED  
 A. LOADING AREA SUMP EMPTIED AT 4 PM, NOTE INITIALS AND TIME  
 CONCRETE SLAB EMPTIED  
 A. SLAB EMPTIED AT 4 PM, NOTE INITIALS AND TIME

SUMP LEVELS  
 A. POND AND SLAB CHECKED DAILY, NOTE INITIALS AND TIME  
 B. PUMP SUMP CHECKED AM & PM, NOTE INITIALS AND TIME  
 C. LOADING AREA SUMP CHECKED AM & PM, NOTE INITIALS AND TIME

Date	Sun	Mon	Tues	Wed	Thu	Fri	Sat
<b>Ambient Air H2S (AM)</b>							
H2S Reading							
Wind Speed							
Wind Direction							
Initials and Time							
<b>Ambient Air H2S (PM)</b>							
H2S Reading							
Wind Speed							
Wind Direction							
Initials and Time							
<b>Sump Levels</b>							
Pond Sump AM							
Cement Slab Sump AM							
Loading Area Sump AM							
Pump House Sump AM							
Initials and Time							
Loading Area Sump PM							
Pump House Sump PM							
Initials and Time							
<b>Loading Sump Emptied</b>							
Initials and Time							
<b>Concrete Slab Emptied</b>							
Initials and Time							
<b>Pond Conditions</b>							
Pond Level							
Overflow Color							
Pond Color							
Water Temperature							
pH							
Dissolved Oxygen							
Total Chlorine							
Dissolved H2S/Sulfides							
<b>Bleach/Chemical</b>							
Volume							
Time							
Initials							
Volume							
Time							
Initials							
Volume							
Time							
Initials							
<b>Manager Verification</b>							
Initials and Time							

*Forms at  
 plant on legal  
 size paper*

**BASIN DISPOSAL, INC.  
DAILY PLANT OPERATIONAL INSPECTION**

YEAR 2007 MONTH \_\_\_\_\_ WEEK BEGINNING \_\_\_\_\_

EMPLOYEES SHALL PERFORM A ROUTINE INSPECTION AT THE BEGINNING OF EACH SHIFT:

- SERVICE PUMPS:**  
 A. DAILY OIL CHECKED AND GREASED. TIME AND INITIALS IN BOX  
 B. MAKE NOTES AS NEEDED
- EQUIPMENT CHECKS:**  
 A. CHECK ELECTRICAL CORDS ON WEEKEND FOR DAMAGE. INITIALS IN BOX  
 B. CHECK FIRST AID KIT ON WEEKEND INITIALS IN BOX. INFORM MGR  
 C. CHECK FIRE EXTINGUISHERS ON WEEKEND. INITIALS IN BOX  
 D. CHECK ON WEEKEND FOR LOW SUPPLIES. INITIALS IN BOX  
 E. CHECK SODIAT PRIOR TO USE. INITIALS IN BOX  
 F. CHECK LOADER PRIOR TO USE. INITIALS IN BOX

- LOOK FOR SPILLS:**  
 A. IF ANY ARE FOUND CLEAN IMMEDIATELY  
 B. NOTIFY SUPERVISOR IMMEDIATELY
- INSPECT FOR LEAKS:**  
 A. TIME AND INITIALS IN BOX  
 B. PRODUCTION TANKS. VALVES. HOSES. PUMPS  
 C. FUEL TANKS. CHEMICAL STORAGE TANKS
- INJECTION VOLUME:**  
 A. AM SHIFT. NOTE TIME AND INITIALS IN BOX  
 B. PM SHIFT. NOTE TIME AND INITIALS IN BOX

- PRESSURES:**  
 A. PUMP PRESSURE  
 B. WELL HEAD PRESSURE  
 C. TIME AND INITIALS IN BOX
- CONOCO METER:**  
 A. READING  
 B. TIME AND INITIALS IN BOX
- FILTER CHANGES:**  
 A. FILTER SIZE, TIME AND INITIALS IN BOX
- OIL VOLUMES:**  
 A. NOTE VOLUMES AND COMPANY, TIME AND INITIALS IN BOX

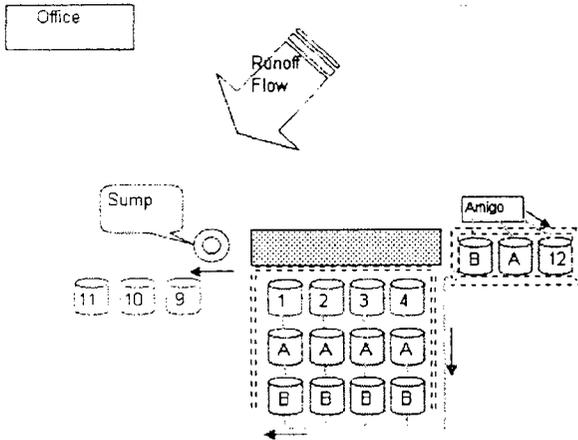
Date	Sun	Mon	Tues	Wed	Thu	Fri	Sat
<b>Service Pumps</b>							
Notes							
<b>Equipment</b>							
Electrical Cords							
First Aid Kit							
Fire Extinguishers							
BooCAT							
Loader							
<b>Spills</b>							
Action Taken							
<b>Leaks</b>							
Production Tanks, Valves							
Hoses and Pumps							
Fuel & Chemical Tanks							
<b>Injection Volume</b>							
AM Shift Reading							
Initials and Time							
PM Shift Reading							
Initials and Time							
<b>Pressure</b>							
Well head Pressure							
<b>Conoco Meter</b>							
Reading							
<b>Filter Changes</b>							
5um							
5um							
5um							
5um							
20um							
20um							
20um							
20um							
<b>Oil Sales</b>							
	Tank/BBLS						
Petrosource							
Petrosource							
Petrosource							
Petrosource							
Giant							
Giant							
Giant							
Giant							
<b>Manager Verification</b>							

*Forms at plant on legal size paper*

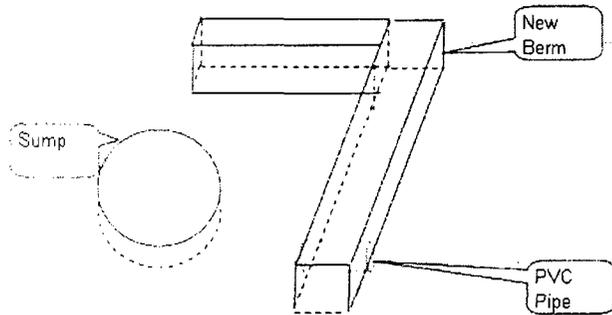
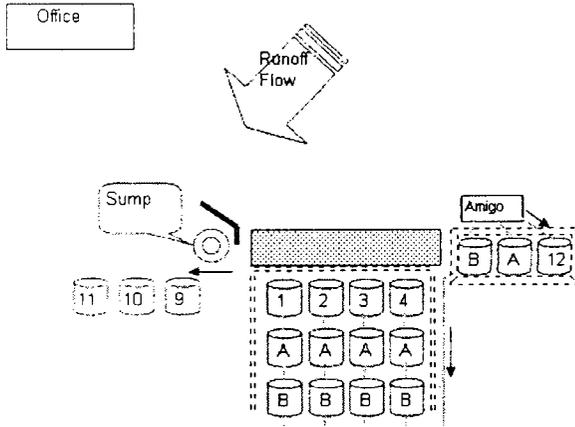
# ATTACHMENT D, DRAWING OF PROPOSED BERM

A B C D E F G H

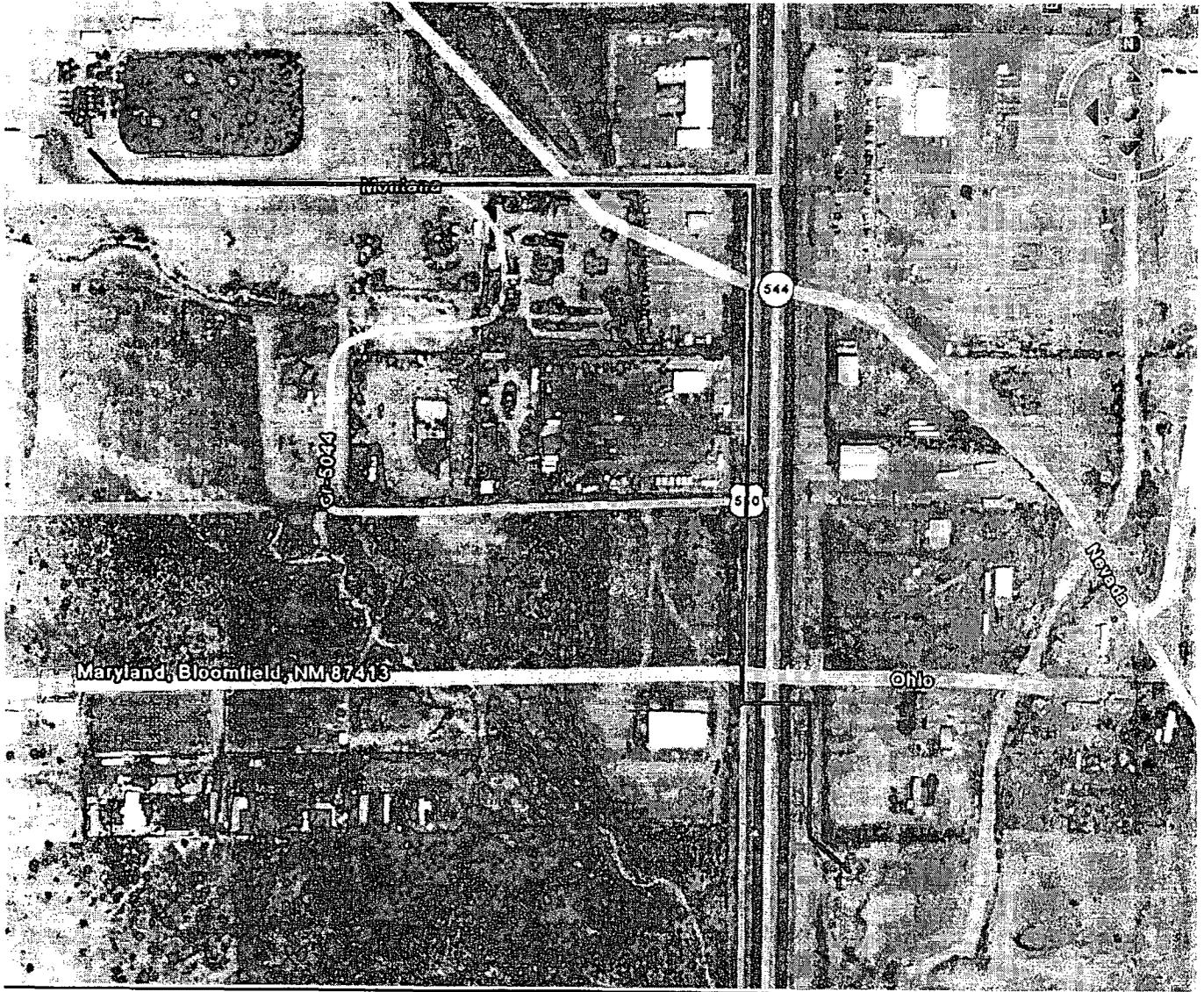
Current Layout



Planned Layout



**ATTACHMENT E. PATH OF FLOW**



District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	BASIN DISPOSAL	Contact	JOHN VOLKERDING/JIMMY BARNES
Address	200 MONTANA AVE. BLOOMFIELD, NM	Telephone No.	505-320-2840/505-486-3078
Facility Name	BASIN DISPOSAL	Facility Type	WATER DISPOSAL

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release	: WATER & OIL	Volume of Release	Volume Recovered
Source of Release	OVERFLOW TANK	Date and Hour of Occurrence	Date and Hour of Discovery 5/2/07, 7AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom? (SEE ABOVE)		Date and Hour (SEE ABOVE)	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
INITIAL INVESTIGATION SUGGESTS THAT RAIN WATER OVERFLOWED THE RECEIVING TANK OVERFLOW SUMP ALLOWING A MIXTURE OF WATER AND OIL TO BE RELEASED. A TEMPORARY BERM HAS BEEN PLACED AROUND THE SUMP TO PREVENT RECCURANCE UNTIL FURTHER ROOT CAUSE ANALYSIS CAN BE PERFORMED.

Describe Area Affected and Cleanup Action Taken.\*  
ENVIROTECH HAS SUREVYED THE SITE A PROPOSES TO REMOVE THE OIL CONTAMINATED DIRT AND DISPOSE OF AT THEIR LANDFILL. THE AREA AFFECTED IS PROPOSED TO BE TREATED WITH A BIODEGRADING SOLUTION.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	<u>OIL CONSERVATION DIVISION</u>		
Printed Name: JOHN VOLKERDING	Approved by District Supervisor:		
Title: GENERAL MANAGER	Approval Date:	Expiration Date:	
E-mail Address: <u>BDINC@DIGIL.NET</u>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 5/3/07	Phone: 505-320-2840		

\* Attach Additional Sheets If Necessary



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor  
**Joanna Prukop**  
Cabinet Secretary

**Mark E. Fesmire, P.E.**  
Director  
Oil Conservation Division

June 20, 2007

Mr. John Volkerding  
General Manager  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, NM 87410

**RE: Basin Disposal, Inc. Minor Modification Request  
Commercial Surface Waste Management Facility Permit NM-1-005  
Facility Location: SE/4 NW/4 of Section 3, Township 29 North, Range 11 West  
NMPM, San Juan County, New Mexico**

Dear Mr. Volkerding:

The New Mexico Oil Conservation Division (OCD) has received and reviewed Basin Disposal Inc.'s proposal to modify the pump house sump to comply with the secondary containment requirements regarding below-grade tanks (Paragraph 2 of Subsection C of 19.15.2.50 NMAC). This minor modification request is hereby approved under the following conditions and understandings:

1. Prior to the installation and construction of the proposed below-grade tank design, Basin Disposal, Inc. shall sample the soils beneath the existing pump house sump tank to determine if contamination has occurred. Basin Disposal, Inc. shall collect four discrete samples and submit to the laboratory to create one laboratory composite sample. The laboratory composite sample shall be analyzed for total petroleum hydrocarbons (TPH), as determined by United States environmental protection agency (EPA) method 418.1 or other EPA method approved by the division; BTEX, as determined by EPA SW-846 method 8021B or 8260B; chlorides; and Total Metals, as determined by EPA SW-846 method 6010B or other EPA method approved by the division. A summary report of the investigation shall be submitted to OCD within 14 days of the receipt of the analytical results. If contamination is discovered, Basin Disposal, Inc. shall submit a remediation plan within 30 days of the finding.
2. Basin Disposal, Inc. shall modify the existing pump house sump by constructing a tank within a tank design with leak detection to satisfy the secondary containment requirements regarding below-grade tanks.
3. The below grade tank will be constructed to prevent stormwater from entering the primary tank and/or the secondary containment-leak detection tank.
4. The primary tank will be constructed to prevent access of wildlife.
5. Basin Disposal, Inc. will operate such modification under all of the terms and conditions placed on the facility by permit number NM-1-005.

Mr. Volkerding  
June 20, 2007  
Page 2 of 2

Please be advised that OCD approval does not relieve the Basin Disposal, Inc. of responsibility should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the Basin Disposal, Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations

If you have any questions regarding this matter, please contact Brad A Jones of my staff at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Wayne Price  
Environmental Bureau Chief

LWP/baj

cc: OCD District III Office, Aztec

# ENVIROTECH INC.

PRactical SOLUTIONS FOR A BETTER TOMORROW

June 4, 2007

RECEIVED

Project No. 03058-002

2007 JUN 15 PM 1 29

Basin Disposal, Inc.  
Attn: Mr. Jimmy Barnes  
200 Montana Road  
Bloomfield, New Mexico 87413

Phone: (505) 486-3078

**RE: ADDENDUM: SPILL CLEANUP REPORT AT BASIN DISPOSAL 200 MONTANA ROAD, SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Barnes:

Envirotech, Inc. has completed a spill cleanup at Basin Disposal 200 Montana Road, San Juan County, New Mexico. Previously you have received the *Spill Cleanup Report*. The following is an addendum to that report documenting the sampling in the pond and the determination from New Mexico Oil and Conservation Division (NMOCD).

## SITE ACTIVITIES

Envirotech was contracted to perform spill cleanup activities at the above referenced location. The spill traveled down a bar ditch and into a storm water retention pond. The excavation of the bar ditch and sample results are discussed in the previous report. The pond was allowed to dry out and a sample was taken per NMOCD's request at the location believed to be the deepest. The samples were transported to Envirotech's Laboratory and analyzed via USEPA Method 8021 Aromatic Volatile Organics (BTEX) and USEPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons (TPH); see *Appendix A, Laboratory Analysis*. The sample was below the most stringent NMOCD standard; see **Table 1, Laboratory Results**.

**Table 1, Laboratory Results**

Sample ID	TPH (ppm)	Benzene (ppb)	Total BTEX (ppb)
Pond Composite	3.3	3.6	136
NMOCD Regulation	100	10000	50000

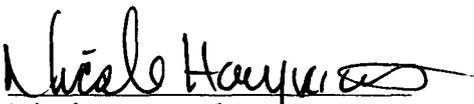
After speaking with NMOCD it was determined that this level of contamination is not of concern and excavation is not required for this pond.

**CONCLUSION**

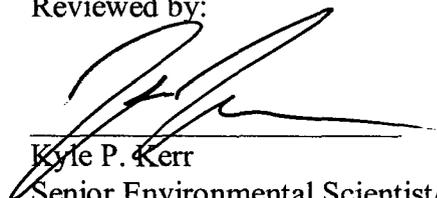
Envirotech, Inc. has completed a spill cleanup at Basin Disposal 200 Montana Road, San Juan County, New Mexico. Laboratory results show that no contamination tested for was above regulatory standards. Envirotech recommends no further action with regards to this site. Envirotech also recommends that measures need to be taken to ensure that a spill of this matter does not occur again.

If you have any questions or comments regarding this spill cleanup, please feel free to contact us at (505) 632-0615.

Sincerely,  
**ENVIROTECH, INC.**

  
Nicole Hayworth  
Environmental Scientist  
[nhayworth@envirotech-inc.com](mailto:nhayworth@envirotech-inc.com)

Reviewed by:

  
Kyle P. Kerr  
Senior Environmental Scientist/Manager  
NMCES #299  
[kpkerr@envirotech-inc.com](mailto:kpkerr@envirotech-inc.com)



  
Morris D. Young  
President  
NMCES #098  
[myoung@envirotech-inc.com](mailto:myoung@envirotech-inc.com)



Enclosures: Appendix A, Laboratory Analysis

Cc: Client File 03058

**Appendix A:**

Laboratory Analysis

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

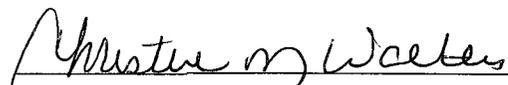
Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Composite	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	05-16-07
Chain of Custody No:	2680	Date Received:	05-16-07
Sample Matrix:	Soil	Date Extracted:	05-17-07
Preservative:	Cool	Date Analyzed:	05-17-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2.1	0.2
Diesel Range (C10 - C28)	1.2	0.1
Total Petroleum Hydrocarbons	3.3	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Basin Yard on 550 Stormwater Pond.**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	05-17-07 QA/QC	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-17-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	1.0166E+003	1.0170E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.1785E+003	1.1790E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

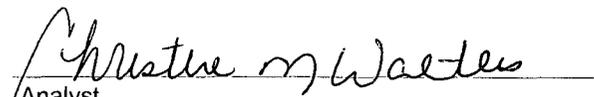
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	2.1	2.0	4.8%	0 - 30%
Diesel Range C10 - C28	1.2	1.2	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	2.1	250	252	100.0%	75 - 125%
Diesel Range C10 - C28	1.2	250	250	99.6%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 41568 - 41569.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Composite	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	05-16-07
Chain of Custody:	2680	Date Received:	05-16-07
Sample Matrix:	Soil	Date Analyzed:	05-17-07
Preservative:	Cool	Date Extracted:	05-17-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
<b>Benzene</b>	<b>3.6</b>	<b>1.8</b>
<b>Toluene</b>	<b>20.2</b>	<b>1.7</b>
<b>Ethylbenzene</b>	<b>6.5</b>	<b>1.5</b>
<b>p,m-Xylene</b>	<b>79.2</b>	<b>2.2</b>
<b>o-Xylene</b>	<b>26.0</b>	<b>1.0</b>
<b>Total BTEX</b>	<b>136</b>	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	<b>Fluorobenzene</b>	<b>98.0 %</b>
	<b>1,4-difluorobenzene</b>	<b>98.0 %</b>
	<b>Bromochlorobenzene</b>	<b>98.0 %</b>

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

**Comments: Basin Yard on 550 Stormwater Pond.**

  
Analyst

  
Review

# ENVIROTECH LABS

PRAGTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	05-17-BTEX QA/QC	Date Reported:	05-18-07
Laboratory Number:	41568	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-17-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	2.8840E+007	2.8898E+007	0.2%	ND	0.2
Toluene	2.8032E+007	2.8088E+007	0.2%	ND	0.2
Ethylbenzene	2.3709E+007	2.3756E+007	0.2%	ND	0.2
p,m-Xylene	4.8620E+007	4.8718E+007	0.2%	ND	0.2
o-Xylene	2.1753E+007	2.1797E+007	0.2%	ND	0.1

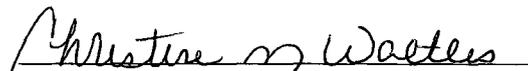
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	3.6	3.6	0.0%	0 - 30%	1.8
Toluene	20.2	20.1	0.5%	0 - 30%	1.7
Ethylbenzene	6.5	6.5	0.0%	0 - 30%	1.5
p,m-Xylene	79.2	79.1	0.1%	0 - 30%	2.2
o-Xylene	26.0	26.1	0.4%	0 - 30%	1.0

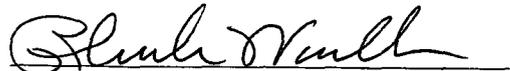
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	3.6	50.0	53.5	99.8%	39 - 150
Toluene	20.2	50.0	70.1	99.9%	46 - 148
Ethylbenzene	6.5	50.0	56.4	99.8%	32 - 160
p,m-Xylene	79.2	100	179	99.8%	46 - 148
o-Xylene	26.0	50.0	75.9	99.9%	46 - 148

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 41568 - 41569.

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

2680

Client / Project Name		Project Location		ANALYSIS / PARAMETERS												
Basin Disposal		Basin Yard on 550														
Sampler: G. Crabtree		Client No. 03058-002														
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	8:15	BTEX	✓	✓	Stormwater Pond	Remarks					
Composite	5/16/07	1400	41568	Soil	1	✓	✓									
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time						
<i>G. Crabtree</i>		5/16/07		1445		<i>Paul S. Vulliamy</i>		5/16/07		1445						
Relinquished by: (Signature)						Received by: (Signature)										
Relinquished by: (Signature)						Received by: (Signature)										
												Sample Receipt				
												Y	N	N/A		
												Received Intact	✓			
												Cool - Ice/Blue Ice	✓			

**ENVIROTECH INC.**

5796 U.S. Highway 64  
 Farmington, New Mexico 87401  
 (505) 632-0615

# ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

# RECEIVED

MAY 21 2007

Oil Conservation Division  
1220 S. St. Francis Drive  
Project No. 03058a002 NM 87505

May 15, 2007

Mr. Jimmy Barnes  
Basin Disposal Inc.  
P.O. Box 100  
Aztec, New Mexico 87410

Phone (505) 486-3078

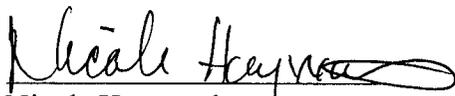
**RE: SPILL CLEANUP REPORT AT BASIN DISPOSAL 200 MONTANA ROAD, SAN JUAN COUNTY, NEW MEXICO**

Dear Mr. Barnes:

Attached please find the *Spill Cleanup Report* at Basin Disposal 200 Montana Road, San Juan County, New Mexico. We have included one (1) original and two (2) copies. Please review the report and forward one (1) copy to Mr. Brandon Powell with the NMOCD.

We appreciate the opportunity to be of service. If you should have any questions, please do not hesitate to contact our office at (505) 632-0615.

Sincerely,  
**ENVIROTECH, INC.**



Nicole Hayworth  
Environmental Scientist  
[nhayworth@envirotech-inc.com](mailto:nhayworth@envirotech-inc.com)

Enclosure

**BASIN DISPOSAL  
SPILL CLEANUP REPORT  
200 MONTANA ROAD  
SAN JUAN COUNTY, NEW MEXICO**

**TABLE OF CONTENTS**

Introduction .....	1
Scope of Work.....	1
Description of Work .....	1
Recommendations.....	3
Statement of Limitations .....	4
Sections:	
Section 1, Figures	
Section 2, Site Photography	
Section 3, Laboratory Results	

## INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Basin Disposal to perform activities associated with a spill cleanup that began at 200 Montana Road near Bloomfield, New Mexico; see *Figure 1, Vicinity Map*. A below grade tank was the source of the release. The excavation of contaminated soil is detailed in this report and laboratory analysis is presented in a separate appendix.

## SCOPE OF WORK

The scope of work included excavation of contaminated soil from along the bar ditch that runs parallel to Montana Road and turns to run parallel to Highway 550; see *Figure 2, Site Map*. Also included in the scope of work was field determination of BTEX components using a Photo-Ionization Detector (PID), and for Total Petroleum Hydrocarbons (TPH) using USEPA Method 418.1, documentation, reporting, and preparation of appropriate New Mexico Oil Conservation Division (NMOCD) forms. Confirmation laboratory samples were also collected per NMOCD request. Based on the site location, it was determined that a cleanup level of 100 ppm TPH for the hydrocarbon-impacted soil would be necessary to comply with the current NMOCD Guidelines that will adequately protect the environment.

## DESCRIPTION OF WORK

### **Wednesday, May 2, 2007**

Work on the site began on May 2, 2007. Upon arriving on the site a brief site assessment was performed to outline the extent of the spill area, photographs were taken, and samples collected from the pond at the extent of the flow path; see *Section 2, Site Photography*. Samples were collected from the pond to determine if contamination had reached the pond. Upon arriving on site it was determined that hand shoveling had been completed to remove most of the visible contamination.

### **Thursday, May 3, 2007**

Excavation of the contaminated areas in the bar ditch that runs parallel to Highway 550 began. An environmental scientist was on site to determine the necessity of excavation in areas of concern. A composite sample was collected every 200 feet of the path traveled by the contaminant and analyzed in the field using USEPA Method 418.1 TPH and an PID to detect organic vapors. Six (6) surface samples were collected from the bar ditch that ran parallel to Montana Road. One (1) background sample was collected and one (1) sample at six (6) inches below ground surface was taken from the area with the highest TPH reading to determine background TPH levels and depth of contamination. After contamination was removed from the bar ditch that runs parallel to Highway 550 four (4) samples were collected to determine if cleanup levels had been met. One (1) sample collected did not pass the clean up standard and was re-sampled after further excavation was completed. Due to the fact that samples from along US HWY 550 between 400 to 875 feet (Samples 9 & 10) from Montana Road passed the regulatory standard prior to any excavation, no further sampling was performed. All field results are listed below in **Table 1: Field Analysis**.

**Table 1, Field Analysis**

Sample Date	Sample Location	Sample ID	TPH (ppm)	OVM (ppm)
05/03/07	Montana 0-200'	1	<b>984</b>	5.6
05/03/07	Montana 200-400'	2	<b>272</b>	6.0
05/03/07	Montana 400-600'	3	<b>340</b>	14.6
05/03/07	Montana 600-800'	4	<b>452</b>	16.4
05/03/07	Montana 800-1000'	5	<b>660</b>	6.6
05/03/07	Montana 1000-1200'	6	<b>576</b>	3.0
05/03/07	Background	BG	24	1.8
05/03/07	Montana 0-200' Six (6) inches BGS	1A	36	0.0
05/03/07	HWY 550 0-200'	7	96	0.4
05/03/07	HWY 550 200-400'	8	<b>316</b>	0.0
05/03/07	HWY 550 400-600'	9	92	0.9
05/03/07	HWY 550 600-800'	10	60	0.3
05/03/07	HWY 550 200-400'	8A	100	1.1
05/04/07	Montana 0-200'	1B	100	0.0
05/04/07	Montana 200-400'	2A	88	0.0
05/04/07	Montana 400-600'	3A	56	0.0
05/04/07	Montana 600-800'	4A	56	0.0
05/04/07	Montana 800-1000'	5A	72	0.0
05/04/07	Montana 1000-1200'	6A	96	0.7
<b>NMOCD Regulations</b>			<b>100</b>	<b>100</b>

**Values in bold are above regulatory limits**

Along the flow path of the contaminants six (6) culverts are in place. To clean the culverts a pressure washer and pump truck were used. The pressure washer was placed on the upstream side of the culvert and the pump truck on the downstream to ensure that a release did not occur.

The first 800 feet of the bar ditch was excavated to a depth of approximately 6 inches using a blade. The remaining length of the bar ditch was too wide to efficiently use the blade. This work was completed by a construction firm, Foutz and Bursom.

All contaminated soil was stockpiled and transported by Basin Disposal to a lined pit inside the Basin Disposal yard. The soil is to be disposed of at a later date.

**Friday, May 4, 2007**

Envirotech completed excavation of the remaining length of the bar ditch running parallel to Montana Road using a skid steer and removing approximately six (6) inches of soil. An environmental scientist was again on site to determine if cleanup standards had been met. Six (6) samples were again taken from the bar ditch along Montana Road.

In addition to the field samples analyzed, NMOCD requested that one (1) sample be taken from

**SECTION 1**

**Figure 1, Vicinity Map**

**Figure 2, Site Map**

every 400 feet along the entire flow path and analyzed in Envirotech's Laboratory using USEPA Method 8021 (BTEX) and USEPA Method 8015M Total Petroleum Hydrocarbons (TPH). NMOCD also requested an additional sample was taken from inside the culvert that runs under Highway 550 and from the mouth of the ditch into the pond. Please see **Table 2, Laboratory Analysis** and **Section 3, Laboratory Results**.

**Table 2, Laboratory Analysis**

Sample Date	Sample Location	Sample ID	TPH (ppm)	BTEX (ppb)
05/04/07	Montana 0-400'	1	0.4	254
05/04/07	Montana 400-800'	2	ND	186
05/04/07	Montana 800-1200'	3	ND	14
05/04/07	HWY 550 0-400'	4	6.3	ND
05/04/07	HWY 550 400-800'	5	1.5	18
05/04/07	Pond Intake	6	ND	4650
05/04/07	Culvert under 550	7	ND	762
	<b>NMOCD Regulations</b>		<b>100</b>	<b>50000</b>

Although all soil samples passed NMOCD regulatory standards, laboratory results from the water in the pond show that total naphthalene is above the New Mexico Water Quality standard of 30 ppb. Naphthalene levels in the pond are 102.7 ppb, which requires remediation to occur; see **Section 3, Laboratory Results**.

**RECOMMENDATIONS**

Excavation was performed to remove all contamination to below a 100 ppm TPH standard. All site activities were performed in accordance with NMOCD requirements. Excavation at Basin Disposal was performed and field sample results indicated that the sites were cleaned to below the 100 ppm limit determined for these sites. Envirotech cannot recommend no further action with regards to this site at this time, since results from the pond show contamination is present in the water. Further remediation will be required once the pond dries out and the soil can be characterized.

**STATEMENT OF LIMITATIONS**

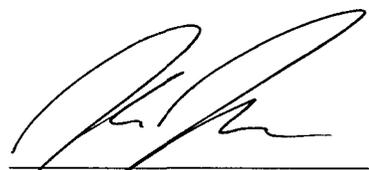
Envirotech performed soil remediation and reporting at Basin Disposal, San Juan County, New Mexico. The work and services provided by Envirotech were under the guidelines of the NMOCD. All observations and conclusions provided here are based on the information and current site conditions found during this investigation.

The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

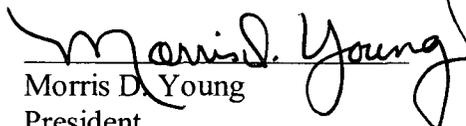
Respectfully Submitted,  
**ENVIROTECH, INC.**

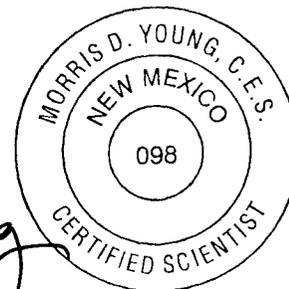
  
Nicole Hayworth  
Environmental Scientist  
[nhayworth@envirotech-inc.com](mailto:nhayworth@envirotech-inc.com)

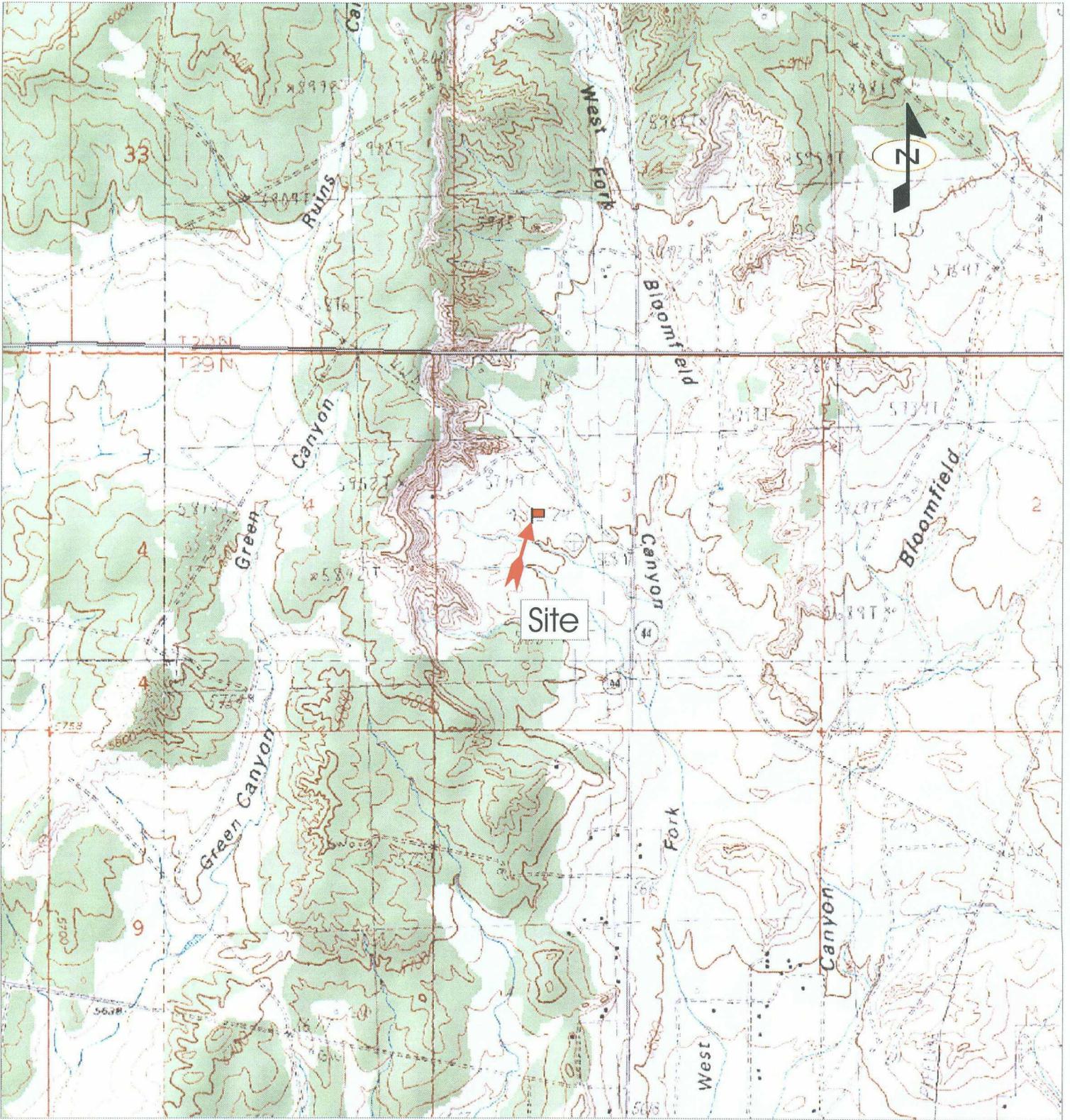
Reviewed by:

  
\_\_\_\_\_  
Kyle P. Kerr  
Senior Environmental Scientist/Manager  
NMCES #299  
[kpkerr@envirotech-inc.com](mailto:kpkerr@envirotech-inc.com)



  
\_\_\_\_\_  
Morris D. Young  
President  
NMCES #098  
[myoung@envirotech-inc.com](mailto:myoung@envirotech-inc.com)





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

<p>Basin Disposal          200 Montana          Bloomfield, New Mexico</p>	<p><b>ENVIROTECH INC.</b>          ENVIRONMENTAL SCIENTISTS &amp; ENGINEERS          5796 U.S. HIGHWAY 64          FARMINGTON, NEW MEXICO 87401          PHONE (505) 632-0615</p>	<p>Vicinity Map</p>	
<p>PROJECT No 03058-002    Date Drawn: 05/14/07</p>		<p>Figure 1</p> <p>DRAWN BY: Juli Thompson    PROJECT MANAGER: Kyle Kerr</p>	

**SITE MAP  
SPILL CLEAN UP**

BASIN DISPOSAL  
200 MONTANA  
BLOOMFIELD, NM

SCALE: 1" = 200'  
PROJECT NO. 03058-002

FIGURE NO. 2

REV

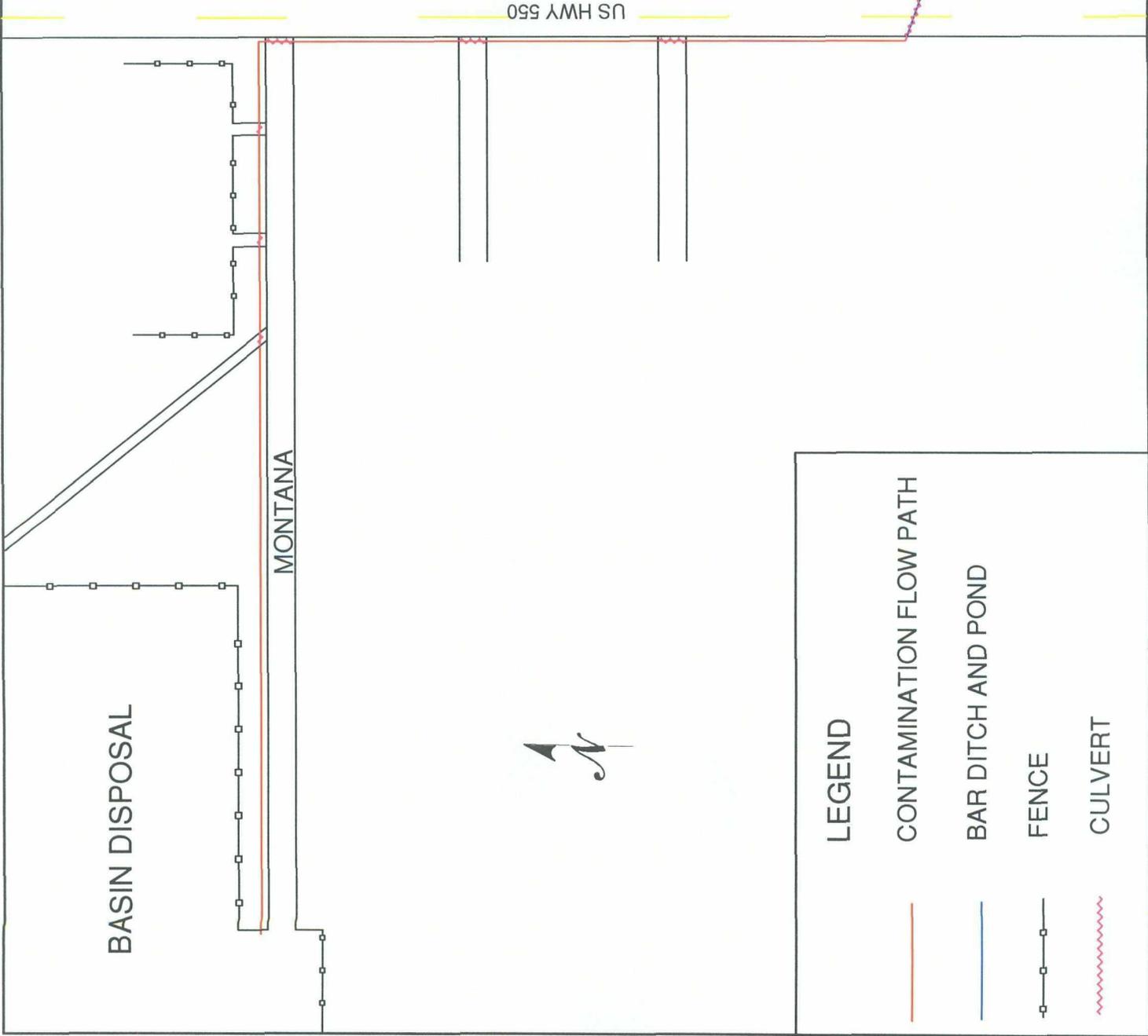
REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN ENH 05/14/07 BASE DRWN

**ENVIROTECH**  
ENVIRONMENTAL SCIENTISTS & ENGINEERS

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615



US HWY 550

MONTANA

BASIN DISPOSAL

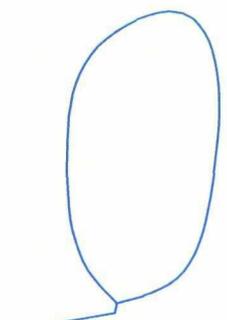
**LEGEND**

CONTAMINATION FLOW PATH

BAR DITCH AND POND

FENCE

CULVERT



**SECTION 2**

**Site Photography**

**Basin Disposal  
Spill Cleanup  
Montana Road and US Highway 550**



Photo 1: Source of Release



Photo 2: Flow Path of Contamination

**Basin Disposal  
Spill Cleanup  
Montana Road and US Highway 550**



Photo 3: Culvert with Contamination Inside



Photo 4: Pressure Washing the Culverts

**Basin Disposal  
Spill Cleanup  
Montana Road and US Highway 550**



Photo 5: Bar Ditch after Remediation



Photo 6: Bar Ditch after Remediation

**SECTION 3**

**Laboratory Results**

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Basin	Project #:	03058-002
Sample No.:	1	Date Reported:	5/16/2007
Sample ID:	Composite Montana 0-200'	Date Sampled:	5/3/2007
Sample Matrix:	Soil	Date Analyzed:	5/3/2007
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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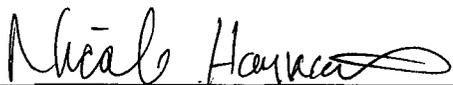
<b>Total Petroleum Hydrocarbons</b>	<b>984</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample



Analyst

Nicole Hayworth

Printed



Review

Juli Thompson

Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 2 Date Reported: 5/16/2007  
Sample ID: Composite Montana 200-400' Date Sampled: 5/3/2007  
Sample Matrix: Soil Date Analyzed: 5/3/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

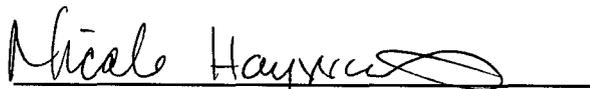
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
<b>Total Petroleum Hydrocarbons</b>	<b>272</b>	<b>5.0</b>

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Nicole Hayworth  
Printed

  
Review

Juli Thompson  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Basin	Project #:	03058-002
Sample No.:	3	Date Reported:	5/16/2007
Sample ID:	Composite Montana 400-600'	Date Sampled:	5/3/2007
Sample Matrix:	Soil	Date Analyzed:	5/3/2007
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

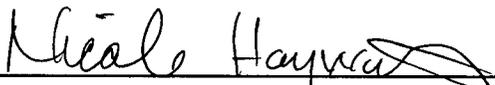
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	340	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

Juli Thompson  
\_\_\_\_\_  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Basin	Project #:	03058-002
Sample No.:	4	Date Reported:	5/16/2007
Sample ID:	Composite Montana 600-800'	Date Sampled:	5/3/2007
Sample Matrix:	Soil	Date Analyzed:	5/3/2007
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

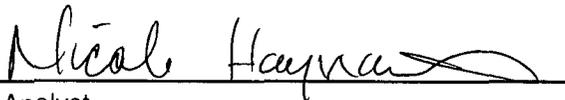
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	452	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

Juli Thompson  
\_\_\_\_\_  
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## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 5 Date Reported: 5/16/2007  
Sample ID: Composite Montana 800-1000' Date Sampled: 5/3/2007  
Sample Matrix: Soil Date Analyzed: 5/3/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

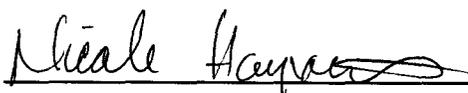
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	660	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

Juli Thompson  
\_\_\_\_\_  
Printed

Client: Basin Project #: 03058-002  
Sample No.: 6 Date Reported: 5/16/2007  
Sample ID: Composite Montana 1000-1200' Date Sampled: 5/3/2007  
Sample Matrix: Soil Date Analyzed: 5/3/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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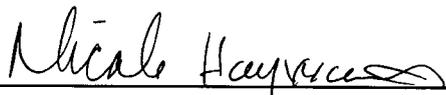
<b>Total Petroleum Hydrocarbons</b>	<b>576</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Nicole Hayworth**  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

**Juli Thompson**  
\_\_\_\_\_  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Basin	Project #:	03058-002
Sample No.:	BG	Date Reported:	5/16/2007
Sample ID:	Background	Date Sampled:	5/3/2007
Sample Matrix:	Soil	Date Analyzed:	5/3/2007
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

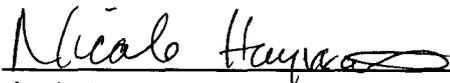
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	24	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

Juli Thompson  
\_\_\_\_\_  
Printed

Client: Basin Project #: 03058-002  
Sample No.: 1A Date Reported: 5/16/2007  
Sample ID: Composite Montana 0-200'  
Six(6) inches deep Date Sampled: 5/3/2007  
Sample Matrix: Soil Date Analyzed: 5/3/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
-----------	--------------------------	--------------------------

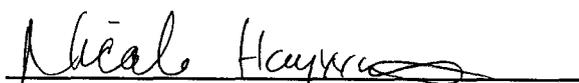
Total Petroleum Hydrocarbons	36	5.0
------------------------------	----	-----

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
Analyst

Nicole Hayworth  
Printed

  
Review

Juli Thompson  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 7 Date Reported: 5/16/2007  
Sample ID: Composite HWY 550 0-200' Date Sampled: 5/3/2007  
Sample Matrix: Soil Date Analyzed: 5/3/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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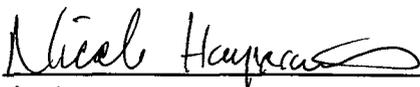
<b>Total Petroleum Hydrocarbons</b>	<b>96</b>	<b>5.0</b>
-------------------------------------	-----------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Nicole Hayworth**  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

**Juli Thompson**  
\_\_\_\_\_  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Basin	Project #:	03058-002
Sample No.:	8	Date Reported:	5/16/2007
Sample ID:	Composite HWY 550 200-400'	Date Sampled:	5/3/2007
Sample Matrix:	Soil	Date Analyzed:	5/3/2007
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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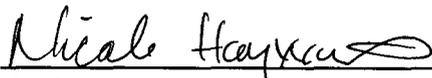
<b>Total Petroleum Hydrocarbons</b>	<b>316</b>	<b>5.0</b>
-------------------------------------	------------	------------

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample



Analyst

Nicole Hayworth

Printed



Review

Juli Thompson

Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 9 Date Reported: 5/16/2007  
Sample ID: Composite HWY 550 400-600' Date Sampled: 5/3/2007  
Sample Matrix: Soil Date Analyzed: 5/3/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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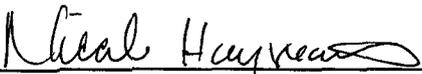
<b>Total Petroleum Hydrocarbons</b>	<b>92</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
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Juli Thompson  
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## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Basin	Project #:	03058-002
Sample No.:	10	Date Reported:	5/16/2007
Sample ID:	Composite HWY 550 600-875'	Date Sampled:	5/3/2007
Sample Matrix:	Soil	Date Analyzed:	5/3/2007
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	60	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

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Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 8A Date Reported: 5/16/2007  
Sample ID: Composite HWY 550 0-200' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	100	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
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Juli Thompson  
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## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 1B Date Reported: 5/16/2007  
Sample ID: Composite Montana 0-200' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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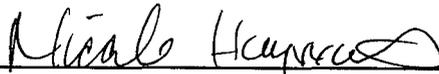
<b>Total Petroleum Hydrocarbons</b>	<b>100</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument calibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Nicole Hayworth**  
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Review

**Juli Thompson**  
\_\_\_\_\_  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 3A Date Reported: 5/16/2007  
Sample ID: Composite Montana 400-600' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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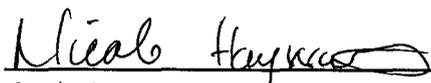
<b>Total Petroleum Hydrocarbons</b>	<b>56</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Nicole Hayworth**  
\_\_\_\_\_  
Printed

  
\_\_\_\_\_  
Review

**Juli Thompson**  
\_\_\_\_\_  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 4A Date Reported: 5/16/2007  
Sample ID: Composite Montana 600-800' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

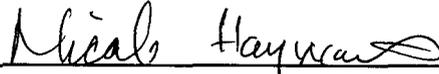
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	56	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

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Printed

Client: Basin Project #: 03058-002  
Sample No.: 5A Date Reported: 5/16/2007  
Sample ID: Composite Montana 800-1000' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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<b>Total Petroleum Hydrocarbons</b>	<b>72</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

**Nicole Hayworth**  
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**Juli Thompson**  
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Printed

Client: Basin Project #: 03058-002  
Sample No.: 6A Date Reported: 5/16/2007  
Sample ID: Composite Montana 1000-1200' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

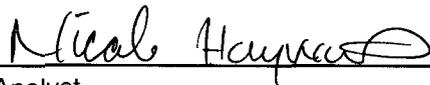
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	96	5.0

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

  
\_\_\_\_\_  
Analyst

Nicole Hayworth  
\_\_\_\_\_  
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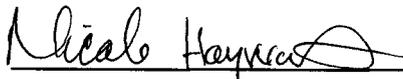
Juli Thompson  
\_\_\_\_\_  
Printed

CONTINUOUS CALIBRATION  
EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS

Cal. Date: 3-May-07

Parameter	Standard Concentration mg/L	Concentration Reading mg/L
TPH	100	235
	200	
	500	
	1000	

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

  
\_\_\_\_\_  
Analyst

05/16/07  
\_\_\_\_\_  
Date

Nicole Hayworth  
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\_\_\_\_\_  
Review

16-MAY-07  
\_\_\_\_\_  
Date

Juli Thompson  
\_\_\_\_\_  
Printed

## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client: Basin Project #: 03058-002  
Sample No.: 2A Date Reported: 5/16/2007  
Sample ID: Composite Montana 200-400' Date Sampled: 5/4/2007  
Sample Matrix: Soil Date Analyzed: 5/4/2007  
Preservative: Cool Analysis Needed: TPH-418.1  
Condition: Cool and Intact

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
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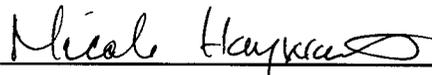
<b>Total Petroleum Hydrocarbons</b>	<b>88</b>	<b>5.0</b>
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ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Basin Disposal**

Instrument callibrated to 200 ppm standard. Zeroed before each sample



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# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Montana - A	Date Reported:	05-09-07
Laboratory Number:	41393	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

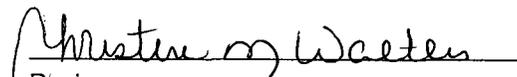
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.4	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.4	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

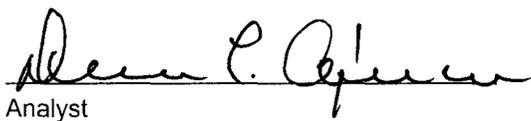
Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Montana - B	Date Reported:	05-09-07
Laboratory Number:	41394	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

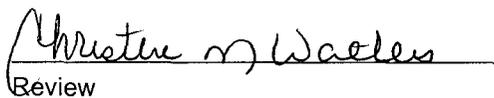
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Montana - C	Date Reported:	05-09-07
Laboratory Number:	41395	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

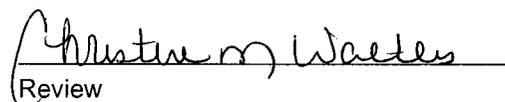
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

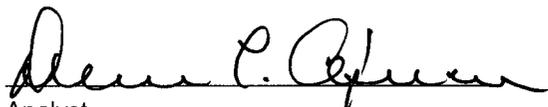
Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Pond	Date Reported:	05-09-07
Laboratory Number:	41396	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

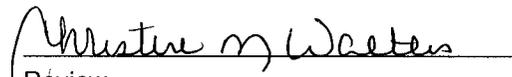
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

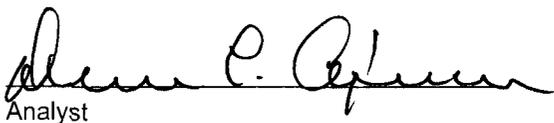
Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Culvert	Date Reported:	05-09-07
Laboratory Number:	41397	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

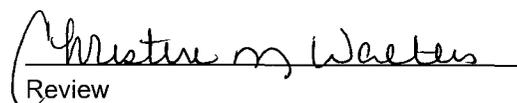
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
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# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Hwy 550 - A	Date Reported:	05-09-07
Laboratory Number:	41398	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

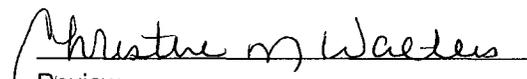
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	6.3	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	6.3	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Hwy 550 - B	Date Reported:	05-09-07
Laboratory Number:	41399	Date Sampled:	05-04-07
Chain of Custody No:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Extracted:	05-07-07
Preservative:	Cool	Date Analyzed:	05-08-07
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.5	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	1.5	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	05-08-07 QA/QC	Date Reported:	05-09-07
Laboratory Number:	41390	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-08-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	9.9960E+002	1.0000E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9960E+002	1.0000E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	6.6	6.6	0.0%	0 - 30%

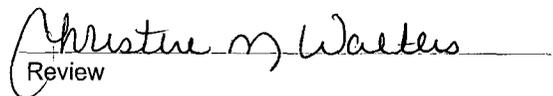
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	6.6	250	256	99.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 41390 - 41391, 41393 - 41399

  
Analyst

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Montana - A	Date Reported:	05-09-07
Laboratory Number:	41393	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	5.5	1.8
Toluene	58.5	1.7
Ethylbenzene	16.1	1.5
p,m-Xylene	144	2.2
o-Xylene	29.5	1.0
<b>Total BTEX</b>	<b>254</b>	

ND - Parameter not detected at the stated detection limit.

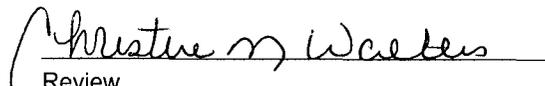
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
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# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Montana - B	Date Reported:	05-09-07
Laboratory Number:	41394	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4.5	1.8
Toluene	10.0	1.7
Ethylbenzene	9.0	1.5
p,m-Xylene	131	2.2
o-Xylene	31.9	1.0
<b>Total BTEX</b>	<b>186</b>	

ND - Parameter not detected at the stated detection limit.

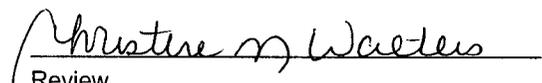
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRAGMATIC SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Montana - C	Date Reported:	05-09-07
Laboratory Number:	41395	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	5.6	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	8.4	2.2
o-Xylene	ND	1.0
<b>Total BTEX</b>	<b>14.0</b>	

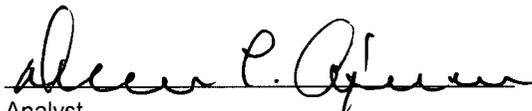
ND - Parameter not detected at the stated detection limit.

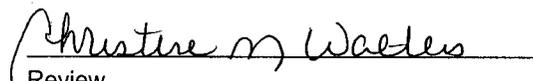
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRAGTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Pond	Date Reported:	05-09-07
Laboratory Number:	41396	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	ND	2.2
o-Xylene	ND	1.0
Total BTEX	ND	

ND - Parameter not detected at the stated detection limit.

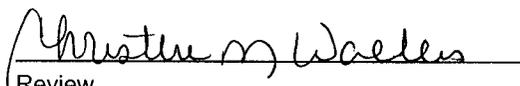
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Montana & Hwy 550

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Culvert	Date Reported:	05-09-07
Laboratory Number:	41397	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	4.4	1.8
Toluene	9.8	1.7
Ethylbenzene	ND	1.5
p,m-Xylene	3.8	2.2
o-Xylene	ND	1.0
<b>Total BTEX</b>	<b>18.0</b>	

ND - Parameter not detected at the stated detection limit.

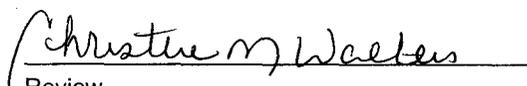
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Hwy 550 - A	Date Reported:	05-09-07
Laboratory Number:	41398	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	553	1.8
Toluene	1,580	1.7
Ethylbenzene	249	1.5
p,m-Xylene	1,790	2.2
o-Xylene	478	1.0
<b>Total BTEX</b>	<b>4,650</b>	

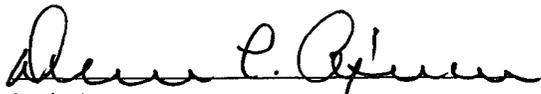
ND - Parameter not detected at the stated detection limit.

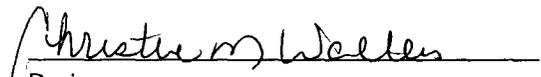
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Montana & Hwy 550

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Hwy 550 - B	Date Reported:	05-09-07
Laboratory Number:	41399	Date Sampled:	05-04-07
Chain of Custody:	2597	Date Received:	05-04-07
Sample Matrix:	Soil	Date Analyzed:	05-08-07
Preservative:	Cool	Date Extracted:	05-07-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	42.4	1.8
Toluene	306	1.7
Ethylbenzene	24.7	1.5
p,m-Xylene	340	2.2
o-Xylene	79.3	1.0
<b>Total BTEX</b>	<b>792</b>	

ND - Parameter not detected at the stated detection limit.

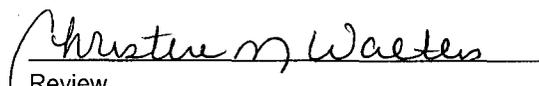
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Montana & Hwy 550**

  
Analyst

  
Review

# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	05-08-BTEX QA/QC	Date Reported:	05-09-07
Laboratory Number:	41390	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-08-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff.	Blank Conc	Detect. Limit
		Accept. Range 0 - 15%			
Benzene	3.9249E+006	3.9328E+006	0.2%	ND	0.2
Toluene	9.6594E+006	9.6788E+006	0.2%	ND	0.2
Ethylbenzene	9.7601E+006	9.7796E+006	0.2%	ND	0.2
p,m-Xylene	2.7767E+007	2.7822E+007	0.2%	ND	0.2
o-Xylene	1.2449E+007	1.2474E+007	0.2%	ND	0.1

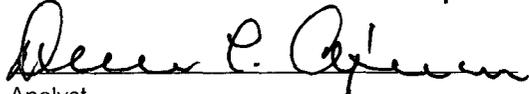
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	13.5	13.4	0.7%	0 - 30%	1.7
Ethylbenzene	3.2	3.2	0.0%	0 - 30%	1.5
p,m-Xylene	27.1	27.0	0.4%	0 - 30%	2.2
o-Xylene	4.6	4.6	0.0%	0 - 30%	1.0

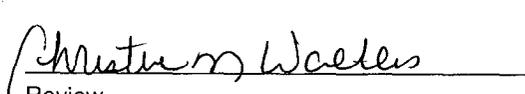
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	13.5	50.0	63.4	99.8%	46 - 148
Ethylbenzene	3.2	50.0	53.1	99.8%	32 - 160
p,m-Xylene	27.1	100	127	99.8%	46 - 148
o-Xylene	4.6	50.0	54.6	100.0%	46 - 148

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 41390 - 41391, 41393 - 41399

  
Analyst

  
Review



# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8260B

Volatile Organic Compounds by GC/MS

Client:	Basin Disposal	Project #:	03058-002
Sample ID:	Pond	Date Reported:	05-04-07
Chain of Custody:	2582	Date Sampled:	05-02-07
Laboratory Number:	41354	Date Received:	05-03-07
Sample Matrix:	Water	Date Analyzed:	05-04-07
Preservative:	Cool & HgCl	Analysis Requested:	8260 VOC
Condition:	Cool and Intact		

Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
Benzene	1.2	(ug/L)	1.0	1
Toluene	13.9	(ug/L)	1.0	1
Ethylbenzene	15.5	(ug/L)	1.0	1
Xylenes, Total	10.4	(ug/L)	1.0	1
Methyl tert-butyl ether (MTBE)	ND	(ug/L)	1.0	1
1,2,4-Trimethylbenzene	4.6	(ug/L)	1.0	1
1,3,5-Trimethylbenzene	16.5	(ug/L)	1.0	1
1,2-Dichloroethane (EDC)	ND	(ug/L)	1.0	1
1,2-Dibromoethane (EDB)	ND	(ug/L)	1.0	1
Naphthalene	42.0	(ug/L)	1.0	1
1-Methylnaphthalene	26.6	(ug/L)	2.0	1
2-Methylnaphthalene	34.1	(ug/L)	2.0	1
Bromobenzene	ND	(ug/L)	1.0	1
Bromochloromethane	ND	(ug/L)	1.0	1
Bromodichloromethane	ND	(ug/L)	1.0	1
Bromoform	ND	(ug/L)	1.0	1
Bromomethane	ND	(ug/L)	1.0	1
Carbon Tetrachloride	ND	(ug/L)	1.0	1
Chlorobenzene	ND	(ug/L)	1.0	1
Chloroethane	ND	(ug/L)	2.0	1
Chloroform	ND	(ug/L)	1.0	1
Chloromethane	ND	(ug/L)	1.0	1
2-Chlorotoluene	ND	(ug/L)	1.0	1
4-Chlorotoluene	ND	(ug/L)	1.0	1
cis-1,2-Dichloroethene	ND	(ug/L)	1.0	1
cis-1,3-Dichloropropene	ND	(ug/L)	1.0	1
1,2-Dibromo-3-chloropropane	ND	(ug/L)	2.0	1
Dibromochloromethane	ND	(ug/L)	1.0	1
Dibromoethane	ND	(ug/L)	2.0	1
1,2-Dichlorobenzene	ND	(ug/L)	1.0	1
1,3-Dichlorobenzene	ND	(ug/L)	1.0	1
1,4-Dichlorobenzene	ND	(ug/L)	1.0	1
Dichlorodifluoromethane	ND	(ug/L)	1.0	1
1,1-Dichloroethane	ND	(ug/L)	1.0	1
1,1-Dichloroethene	ND	(ug/L)	1.0	1
1,2-Dichloropropane	ND	(ug/L)	1.0	1
1,3-Dichloropropane	ND	(ug/L)	1.0	1
2,2-Dichloropropane	ND	(ug/L)	1.0	1

# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8260B

Volatile Organic Compounds by GC/MS

Client: Basin Disposal

Sample ID: Pond

page 2

Laboratory Number: 41354

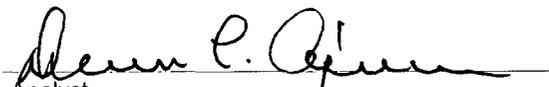
Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
1,1-Dichloropropene	ND	(ug/L)	1.0	1
Hexachlorobutadiene	ND	(ug/L)	1.0	1
Isopropylbenzene	1.3	(ug/L)	1.0	1
4-Isopropyltoluene	1.2	(ug/L)	1.0	1
Methylene Chloride	ND	(ug/L)	3.0	1
n-Butylbenzene	3.3	(ug/L)	1.0	1
n-Propylbenzene	ND	(ug/L)	1.0	1
sec-Butylbenzene	2.1	(ug/L)	1.0	1
Styrene	ND	(ug/L)	1.0	1
tert-Butylbenzene	3.4	(ug/L)	1.0	1
Tetrachloroethene (PCE)	ND	(ug/L)	1.0	1
1,1,1,2-Tetrachloroethane	ND	(ug/L)	1.0	1
1,1,2,2-Tetrachloroethane	ND	(ug/L)	1.0	1
trans-1,2-Dichloroethene	ND	(ug/L)	1.0	1
trans-1,3-Dichloropropene	ND	(ug/L)	1.0	1
Trichloroethene (TCE)	ND	(ug/L)	1.0	1
Trichlorofluoromethane	ND	(ug/L)	1.0	1
1,2,3-Trichlorobenzene	ND	(ug/L)	1.0	1
1,2,4-Trichlorobenzene	ND	(ug/L)	1.0	1
1,1,1-Trichloroethane	ND	(ug/L)	1.0	1
1,1,2-Trichloroethane	ND	(ug/L)	1.0	1
1,2,3-Trichloropropane	ND	(ug/L)	2.0	1
Vinyl Chloride	ND	(ug/L)	2.0	1

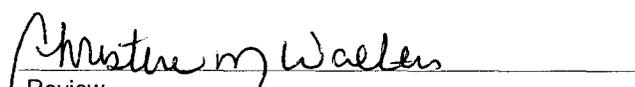
Surrogates:			Rec. Limits	
Dibromofluoromethane	99.1	% Recovery	78.6-115	1
1,2-Dichloroethane-d4	99.6	% Recovery	74.6-123	1
Toluene-d8	98.8	% Recovery	84.2-115	1
4-Bromofluorobenzene	97.1	% Recovery	78.6-115	1

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.  
Method 8260, Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Comments: **Basin Disposal Yard**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

**QUALITY ASSURANCE / QUALITY CONTROL**

**DOCUMENTATION**

# ENVIROTECH LABS

PRAGTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8260B

Volatile Organic Compounds by GC/MS  
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	05-04-07
Laboratory Number:	05-04 VOA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-04-07
Condition:	N/A	Analysis Requested:	8260 VOC

Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
Benzene	ND	(ug/L)	1.0	1
Toluene	ND	(ug/L)	1.0	1
Ethylbenzene	ND	(ug/L)	1.0	1
Xylenes, Total	ND	(ug/L)	1.0	1
Methyl tert-butyl ether (MTBE)	ND	(ug/L)	1.0	1
1,2,4-Trimethylbenzene	ND	(ug/L)	1.0	1
1,3,5-Trimethylbenzene	ND	(ug/L)	1.0	1
1,2-Dichloroethane (EDC)	ND	(ug/L)	1.0	1
1,2-Dibromoethane (EDB)	ND	(ug/L)	1.0	1
Naphthalene	ND	(ug/L)	1.0	1
1-Methylnaphthalene	ND	(ug/L)	2.0	1
2-Methylnaphthalene	ND	(ug/L)	2.0	1
Bromobenzene	ND	(ug/L)	1.0	1
Bromochloromethane	ND	(ug/L)	1.0	1
Bromodichloromethane	ND	(ug/L)	1.0	1
Bromoform	ND	(ug/L)	1.0	1
Bromomethane	ND	(ug/L)	1.0	1
Carbon Tetrachloride	ND	(ug/L)	1.0	1
Chlorobenzene	ND	(ug/L)	1.0	1
Chloroethane	ND	(ug/L)	2.0	1
Chloroform	ND	(ug/L)	1.0	1
Chloromethane	ND	(ug/L)	1.0	1
2-Chlorotoluene	ND	(ug/L)	1.0	1
4-Chlorotoluene	ND	(ug/L)	1.0	1
cis-1,2-Dichloroethene	ND	(ug/L)	1.0	1
cis-1,3-Dichloropropene	ND	(ug/L)	1.0	1
1,2-Dibromo-3-chloropropane	ND	(ug/L)	2.0	1
Dibromochloromethane	ND	(ug/L)	1.0	1
Dibromoethane	ND	(ug/L)	2.0	1
1,2-Dichlorobenzene	ND	(ug/L)	1.0	1
1,3-Dichlorobenzene	ND	(ug/L)	1.0	1
1,4-Dichlorobenzene	ND	(ug/L)	1.0	1
Dichlorodifluoromethane	ND	(ug/L)	1.0	1
1,1-Dichloroethane	ND	(ug/L)	1.0	1
1,1-Dichloroethene	ND	(ug/L)	1.0	1
1,2-Dichloropropane	ND	(ug/L)	1.0	1
1,3-Dichloropropane	ND	(ug/L)	1.0	1
2,2-Dichloropropane	ND	(ug/L)	1.0	1

# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8260B Volatile Organic Compounds by GC/MS Quality Assurance Report

Client: QA/QC  
Sample ID: Laboratory Blank  
Laboratory Number: 05-04 VOA

page 2

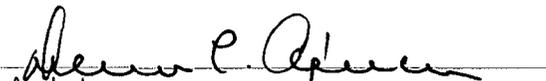
Parameter	Concentration (ug/L)	Units	Det. Limit	Dilution Factor
1,1-Dichloropropene	ND	(ug/L)	1.0	1
Hexachlorobutadiene	ND	(ug/L)	1.0	1
Isopropylbenzene	ND	(ug/L)	1.0	1
4-Isopropyltoluene	ND	(ug/L)	1.0	1
Methylene Chloride	ND	(ug/L)	1.0	1
n-Butylbenzene	ND	(ug/L)	1.0	1
n-Propylbenzene	ND	(ug/L)	1.0	1
sec-Butylbenzene	ND	(ug/L)	1.0	1
Styrene	ND	(ug/L)	1.0	1
tert-Butylbenzene	ND	(ug/L)	1.0	1
Tetrachloroethene (PCE)	ND	(ug/L)	1.0	1
1,1,1,2-Tetrachloroethane	ND	(ug/L)	1.0	1
1,1,2,2-Tetrachloroethane	ND	(ug/L)	1.0	1
trans-1,2-Dichloroethene	ND	(ug/L)	1.0	1
trans-1,3-Dichloropropene	ND	(ug/L)	1.0	1
Trichloroethene (TCE)	ND	(ug/L)	1.0	1
Trichlorofluoromethane	ND	(ug/L)	1.0	1
1,2,3-Trichlorobenzene	ND	(ug/L)	1.0	1
1,2,4-Trichlorobenzene	ND	(ug/L)	1.0	1
1,1,1-Trichloroethane	ND	(ug/L)	1.0	1
1,1,2-Trichloroethane	ND	(ug/L)	1.0	1
1,2,3-Trichloropropane	ND	(ug/L)	2.0	1
Vinyl Chloride	ND	(ug/L)	2.0	1

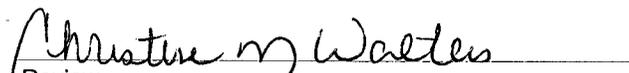
Surrogates:			Rec. Limits	
Dibromofluoromethane	99.8	% Recovery	78.6-115	1
1,2-Dichloroethane-d4	99.6	% Recovery	74.6-123	1
Toluene-d8	99.7	% Recovery	84.2-115	1
4-Bromofluorobenzene	99.4	% Recovery	78.6-115	1

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.  
Method 8260, Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Comments: QA/QC for sample 41354

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8260B Volatile Organic Compounds by GC/MS Quality Assurance Report

Client: QA/QC  
Sample ID: Matrix Spikes  
Laboratory Number: 05-04-VOA - 41354  
Sample Matrix: Water  
Preservative: N/A  
Condition: N/A

Project #: N/A  
Date Reported: 05-04-07  
Date Sampled: N/A  
Date Received: N/A  
Date Analyzed: 05-04-07  
Analysis Requested: 8260 VOC

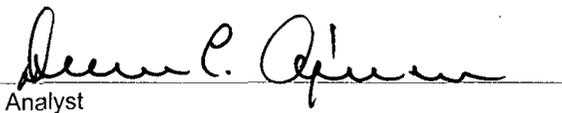
Spike Analyte	Units: uG/L				Recovery Limits	Det. Limit
	Sample	Added	Result	%Recovery		
Benzene	1.2	100.0	101	99.9%	85.3 - 120	1.0
Toluene	13.9	100.0	113	99.6%	73 - 123	1.0
Chlorobenzene	ND	100.0	99.8	99.8%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100.0	99.9	99.9%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100.0	99.9	99.9%	76.1 - 126	1.0

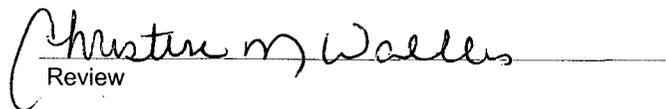
Spike Duplicate Analyte	Units: uG/L				Recovery Limits	Det. Limit
	Sample	Added	Result	%Recovery		
Benzene	1.2	100.0	101	99.9%	85.3 - 120	1.0
Toluene	13.9	100.0	114	100.1%	73 - 123	1.0
Chlorobenzene	ND	100.0	99.9	99.9%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100.0	99.8	99.8%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100.0	99.9	99.9%	76.1 - 126	1.0

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.  
Method 8260, Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Comments: QA/QC for sample 41354

  
Analyst

  
Review

# ENVIROTECH LABS

PRAGTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8260B Volatile Organic Compounds by GC/MS Daily Calibration Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Daily Calibration	Date Reported:	05-04-07
Laboratory Number:	05-04 QA/QC	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-04-07
Condition:	N/A	Analysis Requested:	8260 VOC

Parameter	Concentration (ug/L)	Result	% Recovered	% Recovery Limits
Benzene	100	99.9	99.9	80 - 120
Toluene	100	99.9	99.9	80 - 120
Ethylbenzene	100	99.9	99.9	80 - 120
Xylenes, Total	100	99.9	99.9	80 - 120
Methyl tert-butyl ether (MTBE)	100	99.8	99.8	80 - 120
1,2,4-Trimethylbenzene	100	99.9	99.9	80 - 120
1,3,5-Trimethylbenzene	100	99.9	99.9	80 - 120
1,2-Dichloroethane (EDC)	100	99.9	99.9	80 - 120
1,2-Dibromoethane (EDB)	100	99.9	99.9	80 - 120
Naphthalene	100	99.9	99.9	80 - 120
1-Methylnaphthalene	100	99.9	99.9	80 - 120
2-Methylnaphthalene	100	99.9	99.9	80 - 120
Bromobenzene	100	99.8	99.8	80 - 120
Bromochloromethane	100	99.8	99.8	80 - 120
Bromodichloromethane	100	99.8	99.8	80 - 120
Bromoform	100	99.8	99.8	80 - 120
Bromomethane	100	99.8	99.8	80 - 120
Carbon Tetrachloride	100	99.9	99.9	80 - 120
Chlorobenzene	100	99.8	99.8	80 - 120
Chloroethane	100	99.9	99.9	80 - 120
Chloroform	100	99.8	99.8	80 - 120
Chloromethane	100	99.7	99.7	80 - 120
2-Chlorotoluene	100	99.6	99.6	80 - 120
4-Chlorotoluene	100	99.8	99.8	80 - 120
cis-1,2-Dichloroethene	100	99.7	99.7	80 - 120
cis-1,3-Dichloropropene	100	99.2	99.2	80 - 120
1,2-Dibromo-3-chloropropane	100	99.8	99.8	80 - 120
Dibromochloromethane	100	99.5	99.5	80 - 120
Dibromoethane	100	99.8	99.8	80 - 120
1,2-Dichlorobenzene	100	99.9	99.9	80 - 120
1,3-Dichlorobenzene	100	99.6	99.6	80 - 120
1,4-Dichlorobenzene	100	99.8	99.8	80 - 120
Dichlorodifluoromethane	100	99.8	99.8	80 - 120
1,1-Dichloroethane	100	99.6	99.6	80 - 120
1,1-Dichloroethene	100	99.8	99.8	80 - 120
1,2-Dichloropropane	100	99.6	99.6	80 - 120
1,3-Dichloropropane	100	99.6	99.6	80 - 120
2,2-Dichloropropane	100	99.3	99.3	80 - 120

# ENVIROTECH LABS

PRAGMATIC SOLUTIONS FOR A BETTER TOMORROW

## EPA Method 8260B Volatile Organic Compounds by GC/MS Quality Assurance Report

Client: QA/QC  
Sample ID: Daily Calibration  
Laboratory Number: 05-04 QA/QC

page 2

Parameter	Concentration (ug/L)	Result	% Recovered	% Recovery Limits
1,1-Dichloropropene	100	99.4	99.4	80 - 120
Hexachlorobutadiene	100	99.6	99.6	80 - 120
Isopropylbenzene	100	99.9	99.9	80 - 120
4-Isopropyltoluene	100	99.4	99.4	80 - 120
Methylene Chloride	100	99.5	99.5	80 - 120
n-Butylbenzene	100	99.3	99.3	80 - 120
n-Propylbenzene	100	99.9	99.9	80 - 120
sec-Butylbenzene	100	99.4	99.4	80 - 120
Styrene	100	98.9	98.9	80 - 120
tert-Butylbenzene	100	99.8	99.8	80 - 120
Tetrachloroethene (PCE)	100	99.6	99.6	80 - 120
1,1,1,2-Tetrachloroethane	100	99.8	99.8	80 - 120
1,1,2,2-Tetrachloroethane	100	98.9	98.9	80 - 120
trans-1,2-Dichloroethene	100	99.9	99.9	80 - 120
trans-1,3-Dichloropropene	100	99.8	99.8	80 - 120
Trichloroethene (TCE)	100	99.8	99.8	80 - 120
Trichlorofluoromethane	100	99.9	99.9	80 - 120
1,2,3-Trichlorobenzene	100	99.6	99.6	80 - 120
1,2,4-Trichlorobenzene	100	99.5	99.5	80 - 120
1,1,1-Trichloroethane	100	99.5	99.5	80 - 120
1,1,2-Trichloroethane	100	99.7	99.7	80 - 120
1,2,3-Trichloropropane	100	99.6	99.6	80 - 120
Vinyl Chloride	100	99.8	99.8	80 - 120

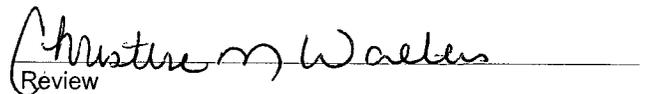
Surrogates:			Rec. Limits
Dibromofluoromethane	99.9	% Recovery	78.6-115
1,2-Dichloroethane-d4	99.9	% Recovery	74.6-123
Toluene-d8	99.8	% Recovery	84.2-115
4-Bromofluorobenzene	99.8	% Recovery	78.6-115

ND = Parameter not detected at the stated detection limit.

References: Method 5030, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.  
Method 8260, Volatile Organic Compounds by Gas Chromatography / Mass Spectrometry, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Comments: QA/QC for sample 41354

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

2582

Client / Project Name		Project Location		ANALYSIS / PARAMETERS													
Basin Disposal		Basin Disposal Yard		Client No.		No. of Containers											
Sampler:		G. Crabtree		03050-002		8260											
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix													
Pond	5/2/07	1430	41354	Water	2	✓											
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
<i>[Signature]</i>		5/3/07		0730		<i>[Signature]</i>		5/3/07		0730							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
												Sample Receipt					
												Y	N	N/A			
												Received Intact		✓			
												Cool - Ice/Blue Ice		✓			

**ENVIROTECH INC.**

5796 U.S. Highway 64  
 Farmington, New Mexico 87401  
 (505) 632-0615

# RECEIVED

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

MAY 21 2007

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form  
Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

## Release Notification and Corrective Action

**OPERATOR**  Initial Report  Final Report

Name of Company	BASIN DISPOSAL	Contact	JOHN VOLKERDING/JIMMY BARNES
Address	200 MONTANA AVE. BLOOMFIELD, NM	Telephone No.	505-320-2840/505-486-3078
Facility Name	BASIN DISPOSAL	Facility Type	WATER DISPOSAL

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

### NATURE OF RELEASE

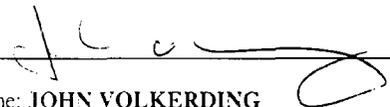
Type of Release	: RAIN WATER & OIL	Volume of Release	Volume Recovered
Source of Release	: RECEIVING AREA SUMP	Date and Hour of Occurrence	Date and Hour of Discovery 5/2/07, 7AM
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? TO: BRANDON POWELL, BY JIMMY BARNES, 5/2/07 9AM TO: WAYNE PRICE, BY JOHN VOLKERDING, 5/2/07 11:20 PM	
By Whom? (SEE ABOVE)	Date and Hour (SEE ABOVE)		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted. Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
INITIAL INVESTIGATION SUGGESTS THAT RAIN WATER OVERFLOWED THE RECEIVING TANK OVERFLOW SUMP ALLOWING A MIXTURE OF WATER AND OIL TO BE RELEASED. A BERM WILL BE PLACED IN FRONT OF THE SUMP TO DIVERT RAINWATER RUNOFF IN ORDER TO PREVENT A RECCURANCE. PLEASE SEE ATTACHMENTS A, B, C, D, E

Describe Area Affected and Cleanup Action Taken.\*  
PLEASE SEE ATTACHMENT F, ENVIROTECH'S REPORT

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: JOHN VOLKERDING	Approved by District Supervisor:		
Title: GENERAL MANAGER	Approval Date:	Expiration Date:	
E-mail Address: BDINC@DIGIL.NET	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 5/17/07	Phone: 505-320-2840		

\* Attach Additional Sheets If Necessary

## ATTACHMENT A

### Description of Cause of Problem and Remedial Action Taken

Excerpt from Basin Disposal's Health, Safety, and Environmental Policy Manual dated August 11, 2006, Section 20, Paragraph 5.2, Spill Prevention Control and Countermeasure (SPCC) Policy

#### 20.5.2 Employee duties and recommendations

- i. No Basin Employees shall intentionally cause any spill of any oil, oil related or chemical materials at the Basin Disposal Plant.
- ii. Basin Employees shall be knowledgeable and have understanding of the operation and maintenance of Basin equipment and storage apparatuses to prevent oil discharges. Basin Employees shall be knowledgeable and have understanding of applicable pollution laws, rules and regulations.
- iii. Basin Employees working at the Basin Disposal Plant shall ensure that the risk of discharge or spill of oil, and oil-related products, reaching "navigable waters" is minimized.
- iv. Basin Employees working at the Basin Disposal Plant or on, or around, any un-diked areas (e.g., pumps, tanks, cellar and pits) shall ensure a ditch or berm leading to secondary containment or reserve pit controls the area.
- v. **Basin Employees working at the Basin Disposal Plant shall make every effort to prevent any petroleum products from leaving the primary containment and from reaching "navigable waters", especially in areas or periods of heavy rain or flood.**
- vi. **In the event of a spill, Basin Employees working at the Basin Disposal Plant shall attempt to contain the spill by building a secondary basin or a diversionary structure; whichever is appropriate at the time. Spills shall be reported to the Plant Manager. Plant Managers shall notify the General Manager.** The General Manager shall request that the owner, or their authorized representative, provide such equipment as is necessary to build structures to contain the spill.
- vii. Basin Employees working at the Basin Disposal Plant shall make every effort to ensure all third party equipment used to transport and store oil is sized to accommodate any expected volumes of oil.

A. The root cause analysis identified that Items v. and vi. in the policy were not adhered to by the Basin Disposal personnel on duty.

The standing procedure during rain storms, had been for Basin Disposal personnel to construct a dirt berm to the north and west of the receiving area sump to divert runoff from entering that sump. Also, if necessary, personnel are to remove water from that sump using the water truck. Documented by the fact that no incident of this nature has occurred previously, that procedure had worked. The personnel on duty failed to follow that procedure this time. Their failure to follow procedures has been documented.

B. The root cause analysis identified, while the procedure was in place and all employees acknowledged understanding it, the procedure was not formalized in writing.

The procedure was evaluated to determine if it was adequate, modified as needed, and documented in writing.

B. The root cause analysis identified that operational controls at the facility could be enhanced and the procedure modified to provide greater assurance of preventing another occurrence.

Past practice had been to inspect and pull water from the sump daily, but generally first thing in the morning. Throughout the day, as water is received, the loading line will likely have a small accumulation of oil. During the cooler months, the loading line is drained at the end of the day to prevent freezing in that line overnight. The contents of that line go to the receiving area sump. Having the contents remain in the receiving area sump overnight, allowed for the possibility that a small amount of oil would remain in the sump overnight. It was determined that the procedure should be modified to have the sump pulled at the end of the day after the loading line was drained to ensure that no oil remained in the receiving area sump overnight. The record keeping documentation has been changed to reflect that requirement and has added a location for the person pulling the water from the sump to place the time and their initials for increased accountability.

Past practice has been to require the personnel on duty to construct a temporary dirt berm to the north and west of the receiving area sump to divert water during periods of heavy rainfall. It was determined that constructing a concrete berm instead would provide greater reliability. The concrete berm will have a pvc pipe running through the bottom to ensure that any water released by trucks during unloading will continue to flow into the sump. The PVC pipe will be equipped with caps that can be easily attached during periods of heavy rain to prevent the runoff from overflowing the receiving area sump.

ATTACHMENT B

**BASIN DISPOSAL, INC.**

**DOCUMENTATION OF UNSATISFACTORY PERFORMANCE**

Type of Notice Written Date(s): May 2, 2006

Issuing Supervisor(s): Jimmy Barnes/John Volkerding Notice Print Date: May 7, 2006

Employee Name: Chris Sam

**Details**

Reason For This Notice: On the evening of May 1-2, 2007, the sump for the water receiving area overflowed. The resulting spill caused contamination the length of Montana Ave all the way to the receiving pond on the east side of the highway. To prevent this from occurring, Chris should have done three things: 1) alerted the Plant Manager and the Asst Manager on call, 2) constructed a temporary dirt berm in front of the tank to prevent overflow, and 3) pulled water out of the sump.

Action Taken: Due to manpower constraints, Chris was not given time off without pay. This would have been the preferred action to allow time for Chris to reflect on his commitment to performance at Basin Disposal.

Consequences or Repeat Violations: Termination

Supervisor Comments: The resulting spill cost Basin Disposal a fair amount of money, caused potential environmental damage and seriously damaged the relationship between Basin Disposal and the State of NM/OCD. All of these consequences are completely unacceptable.

Employee Comments: I'm sorry

**Follow-Up Required**

Ignored Follow-Up Action: Modify procedures, add a signature page for procedures, and shift Asst Managers to night shift until employees are responsible.

Person Responsible for Follow-Up: John Volkerding

**Acknowledgment**

Issuing Supervisor's Signature: [Signature] Date: 5/15/07

Employee Signature: [Signature] Date: 5-15-07

*Signing this form does not indicate agreement, but only signifies that you have been informed of this action and have received a copy of this disciplinary notice. This notice is a disciplinary reprimand and any additional violations, of any type, could lead to additional disciplinary action.*

# BASIN DISPOSAL, INC.

10000 N. MOUNTAIN AVENUE, SUITE 100, ALBUQUERQUE, NM 87117  
505-263-1100 FAX 505-263-1101

## DOCUMENTATION OF UNSATISFACTORY PERFORMANCE

Type of Notice: Written Date(s): May 2, 2006

Issuing Supervisor(s): Jimmy Barnes/John Volkerding Notice Print Date: May 7, 2006

Employee Name: Ed Charlie

### Details

Reason For This Notice: On the evening of May 1-2, 2007, the sump for the water receiving area overflowed. The resulting spill caused contamination the length of Montana Ave all the way to the receiving pond on the east side of the highway. To prevent this from occurring, Ed should have done three things: 1) alerted the Plant Manager and the Asst. Manager on call, 2) constructed a temporary dirt berm in front of the tank to prevent overflow, and 3) pulled water out of the sump.

Action Taken: Due to manpower constraints, Ed was not given time off without pay. This would have been the preferred action to allow time for Ed to reflect on his commitment to performance at Basin Disposal.

Consequences of Repeat Violations: Termination

Supervisor Comments: The resulting spill cost Basin Disposal a fair amount of money, caused potential environmental damage and seriously damaged the relationship between Basin Disposal and the State of NM OCD. All of these consequence are completely unacceptable.

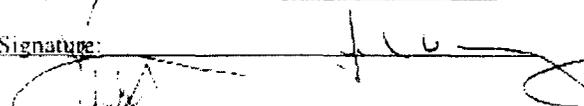
Employee Comments:

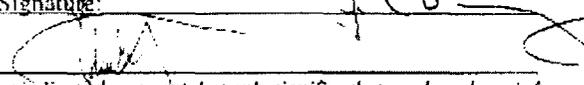
### Follow-Up Required

Identified Follow-Up Action: Modify procedures, add a signature page for procedures, and shift Asst Managers to night shift until employees are responsible.

Person Responsible for Follow-Up: John Volkerding

### Acknowledgment

Issuing Supervisor's Signature:  Date: 5/7/07

Employee Signature:  Date: 5/7/07

*Signing this form does not indicate agreement, but only signifies that you have been informed of this action and have received a copy of this disciplinary notice. This notice is a disciplinary reprimand and any additional violations, of any type, could lead to additional disciplinary action*

**ATTACHMENT C, UPDATED RECORD KEEPING**

**BASIN DISPOSAL, INC.**  
**DAILY AIR AND WATER INSPECTION**

YEAR 2007 MONTH \_\_\_\_\_ WEEK BEGINNING \_\_\_\_\_

AMBIENT AIR WIND SPEED/DIRECTION  
 A. AM READINGS, NOTE INITIALS AND TIME  
 B. PM READINGS, NOTE INITIALS AND TIME  
 SUMP LEVELS  
 A. POND AND SLAB CHECKED DAILY, NOTE INITIALS AND TIME  
 B. PUMP SUMP CHECKED AM & PM, NOTE INITIALS AND TIME  
 C. LOADING AREA SUMP CHECKED AM & PM, NOTE INITIALS AND TIME

LOADING SUMP EMPTIED  
 A. LOADING AREA SUMP EMPTIED AT 4 PM, NOTE INITIALS AND TIME  
 CONCRETE SLAB EMPTIED  
 A. SLAB EMPTIED AT 4 PM, NOTE INITIALS AND TIME

Date	Sun	Mon	Tues	Wed	Thu	Fri	Sat
<b>Ambient Air H2S (AM)</b>							
H2S Reading							
Wind Speed							
Wind Direction							
Initials and Time							
<b>Ambient Air H2S (PM)</b>							
H2S Reading							
Wind Speed							
Wind Direction							
Initials and Time							
<b>Sump Levels</b>							
Pond Sump AM							
Cement Slab Sump AM							
Loading Area Sump AM							
Pump House Sump AM							
Initials and Time							
Loading Area Sump PM							
Pump House Sump PM							
Initials and Time							
<b>Loading Sump Emptied</b>							
Initials and Time							
<b>Concrete Slab Emptied</b>							
Initials and Time							
<b>Pond Conditions</b>							
Pond Level							
Overflow Color							
Pond Color							
Water Temperature							
pH							
Dissolved Oxygen							
Total Chlorine							
Dissolved H2S/Sulfides							
<b>Bleach/Chemical</b>							
Volume							
Time							
Initials							
Volume							
Time							
Initials							
Volume							
Time							
Initials							
<b>Manager Verification</b>							
Initials and Time							

*Forms at  
 plant on legal  
 size paper*

**BASIN DISPOSAL, INC.  
DAILY PLANT OPERATIONAL INSPECTION**

YEAR 2007 MONTH \_\_\_\_\_ WEEK BEGINNING \_\_\_\_\_

EMPLOYEES SHALL PERFORM A ROUTINE INSPECTION AT THE BEGINNING OF EACH SHIFT :

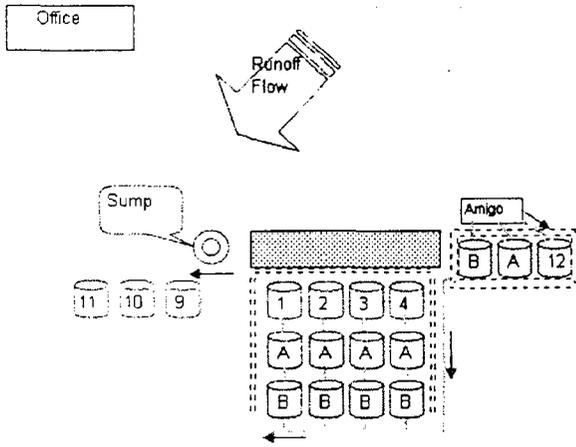
- |  |   |  |
|--|---|--|
| <p><b>SERVICE PUMPS:</b><br/>A. DAILY OIL CHECKED AND GREASED. TIME AND INITIALS IN BOX<br/>B. MAKE NOTES AS NEEDED</p> <p><b>EQUIPMENT CHECKS:</b><br/>A. CHECK ELECTRICAL CORDS ON WEEKEND FOR DAMAGE. INITIALS IN BOX<br/>B. CHECK FIRST AID KIT ON WEEKEND INITIALS IN BOX. INFORM MGR<br/>C. CHECK FIRE EXTINGUISHERS ON WEEKEND. INITIALS IN BOX<br/>D. CHECK ON WEEKEND FOR LOW SUPPLIES. INITIALS IN BOX<br/>E. CHECK BOBCAT PRIOR TO USE. INITIALS IN BOX<br/>F. CHECK LOADER PRIOR TO USE. INITIALS IN BOX</p> | <p><b>LOOK FOR SPILLS:</b><br/>A. IF ANY ARE FOUND. CLEAN IMMEDIATELY<br/>B. NOTIFY SUPERVISOR IMMEDIATELY</p> <p><b>INSPECT FOR LEAKS:</b><br/>A. TIME AND INITIALS IN BOX<br/>B. PRODUCTION TANKS, VALVES, HOSES, PUMPS<br/>C. FUEL TANKS, CHEMICAL STORAGE TANKS</p> <p><b>INJECTION VOLUME:</b><br/>A. AM SHIFT. NOTE TIME AND INITIALS IN BOX<br/>B. PM SHIFT. NOTE TIME AND INITIALS IN BOX</p> | <p><b>PRESSURES:</b><br/>A. PUMP PRESSURE<br/>B. WELL HEAD PRESSURE<br/>C. TIME AND INITIALS IN BOX</p> <p><b>CONOCO METER:</b><br/>A. READING<br/>B. TIME AND INITIALS IN BOX</p> <p><b>FILTER CHANGES:</b><br/>A. FILTER SIZE, TIME AND INITIALS IN BOX<br/>OIL VOLUMES:<br/>B. NOTE VOLUMES AND COMPANY, TIME AND INITIALS IN BOX</p> |
|--|---|--|

Date	Sun	Mon	Tues	Wed	Thu	Fri	Sat
<b>Service Pumps</b>							
Notes							
<b>Equipment</b>							
Electrical Cords							
First Aid Kit							
Fire Extinguishers							
Bobcat							
Loader							
<b>Spills</b>							
Action Taken							
<b>Leaks</b>							
Production Tanks, Valves							
Hoses and Pumps							
Fuel & Chemical Tanks							
<b>Injection Volume</b>							
AM Shift Reading							
Initials and Time							
PM Shift Reading							
Initials and Time							
<b>Pressure</b>							
Well Head Pressure							
<b>Conoco Meter</b>							
Reading							
<b>Filter Changes</b>							
5um							
5um							
5um							
5um							
20um							
20um							
20um							
20um							
<b>Oil Sales</b>							
	Tank/BBLS						
Petrosource							
Petrosource							
Petrosource							
Petrosource							
Giant							
Giant							
Giant							
Giant							
<b>Manager Verification</b>							

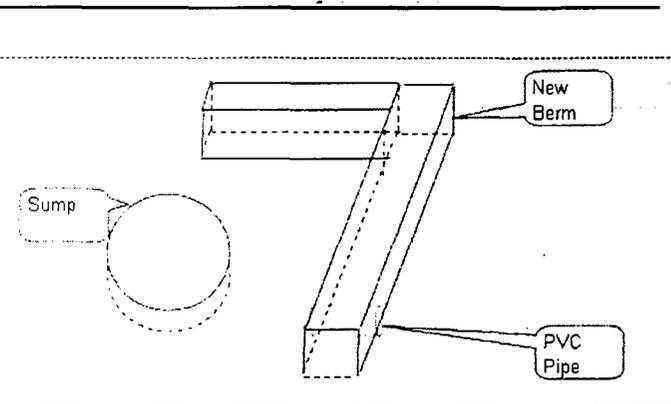
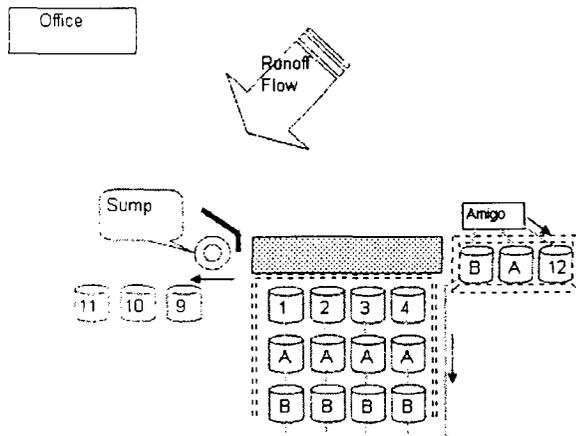
*Forms at plant on legal size paper*

# ATTACHMENT D, DRAWING OF PROPOSED BERM

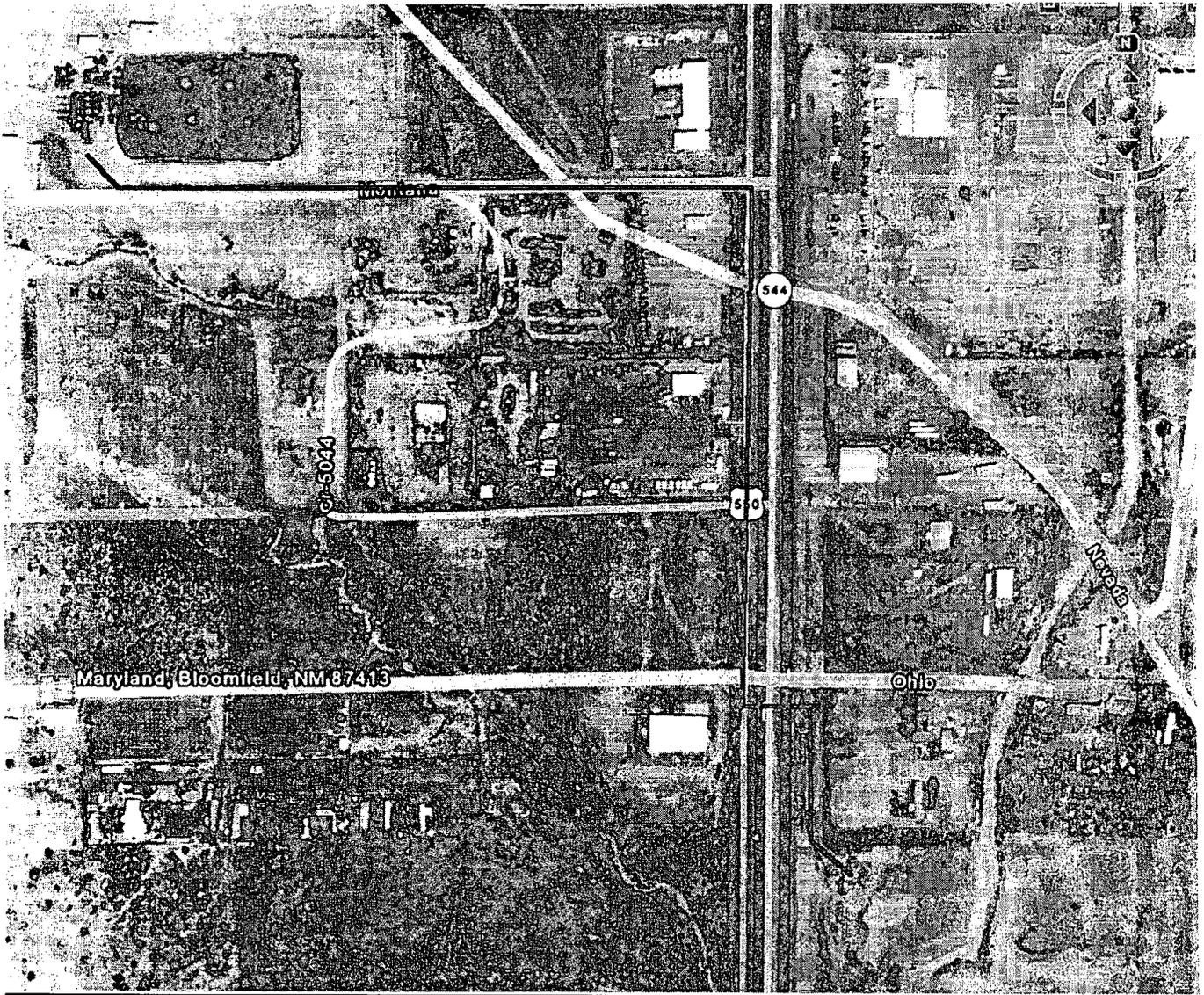
A B C D E F G H  
Current Layout



Planned Layout



**ATTACHMENT E. PATH OF FLOW**



**ATTACHMENT F, ENVIROTECH REPORT**