

# PERMIT MODIFICATION Temporary



Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey, Division Director Oil Conservation Division



February 12, 2014

Mr. John Volkerding Basin Disposal, Inc. P.O. Box 100 Aztec, New Mexico 87410

 Re: \$15,000 Cash Bond for Commercial Surface Waste Management Facility Permit: NM1 - 005
 Principle: Basin Disposal, Inc.
 Financial Institution: Citizens Bank
 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 Oil Conservation Division (OCD) has reviewed Basin Disposal, Inc.'s (Basin Disposal) request to release financial assurance, dated February 6, 2014 by demonstrating closure of the emergency temporary modification to the surface waste management facility permit, NM1-005, approved by OCD on April 1, 2008. OCD hereby approves the cancellation of the above-referenced financial assurance and releases Citizens Bank of any liability.

Please be advised that should operations result in pollution of surface water, ground water or the environment, approval of this request does not relieve Basin Disposal of liability. In addition, approval of this request requires Basin Disposal to comply with all applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact Mr. Brad A. Jones of the OCD staff at (505) 476-3487 or brad.a.jones@state.nm.us.

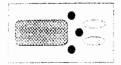
Sincerely,

Gabriel Wade Assistant General Counsel

GW/baj

Enclosure: Copy of Cash Bond (total amount \$15,000.00)

cc: OCD District 3 Office, Aztec



### BASIN DISPOSAL, INC.

P. BOX 100 - AZTEC. NEW MEXICO 87410 - PHONE: (505) 334-3013

2014 FEL 10 P 3: 19

February 6, 2014

Oil Conservation Division Attn: Brad Jones 1220 South St. Francis Dr. Santa Fe, NM 87505 FAX (505) 476-3462

RE: \$15,000 Cash Bond Release Request, Temporary Tanks in 2008

Dear Mr Jones,

In March of 2008, Basin Disposal requested to set additional tanks on a temporary basis. The OCD approved that request on April 1, 2008. The following are the relevant excerpts from the permit modification

I. Basin Disposal, Inc. shall submit an additional \$15,000 of financial assurance for OCD's review and approval prior to initiating any work or activities associated with this approval

12. Basin Disposal, Inc. shall complete the closure of the area impacted from the activities associated with the temporary modification pursuant the Subsection E of 19.15.36 NMAC and the closure plan of the March 28, 2008 submittal and the additional revisions provided March 31, 2008. Such closure activities as the testing and removal of soils above the liner, the removal and disposal of the liner, and the testing of the soils beneath the liner shall be completed within nine months of the effective date of this approval.

13. Basin Disposal, Inc. shall demonstrate that the area impacted from the activities associated with the temporary modification is restored, that no contamination is present, and that the closure is complete to OCD's satisfaction. Upon review, confirmation, and approval of closure, OCD will release the financial assurance associated with the temporary modification.

Last week received a notice that the bank was placing the Cash Bond account in dormant status and plans to start charging Basin Disposal a monthly fee. Since all the of the closure requirements have been satisfied, this letter requests that Basin Disposal have the Cash Bond released.

If you need anything else from me, please feel free to contact me on my cell phone at 505-320-2840 or email at <u>ivolkerding@basindisposalinc.com</u>.

Sincerely,

John Volkerding, PhD Gen Mgr/VP

Encl:

- 1. 3/28/2008 Financial Assurance Letter
- 2. 4/1/2008 Permit
- 3. 4/2/2008 Acceptance of \$15,000 Cash Bond
- 4. 6/13/2008 Soil Analysis after Temp Tanks Removed
- 5. 6/16/2008 Authorization to Dispose of Soils
- 6. 9/2/2008 Soil Analysis
- 7. 1/31/2014 Letter from Citizens Banks

#### Cc: File

Brandon Powell, OCD/Aztec, 1000 Rio Brazos, Aztec, NM 87410

THE CITIZENS BANK 500 W BROADWAY FARMINGTON NM 87401 DORMANT ACCOUNT NOTICE

	1, 2014 2967820
CURRENT BALANCE \$15	5,311.18
LAST TRANSACTION DATE MAR 3	51,2008

BASIN DISPOSAL INC JOHN M VOLKERDING JASON SANDEL PO BOX 100 AZTEC NM 87410-0100

YOUR ACCOUNT HAS HAD NO ACTIVITY IN THE PAST 36 MONTHS AND IS CONSIDERED TO BE A DORMANT ACCOUNT. A \$5.00 MONTHLY DORMANT FEE WILL BE ASSESSED. PLEASE INITIATE A TRANSACTION TO THIS ACCOUNT OR CONTACT US IMMEDIATELY TO RETURN THE ACCOUNT TO ACTIVE STATUS. CITIZENS BANK CALL CENTER (505) 599-0100 OR 800-325-9961

Please return the account to active status. Theik you John on Volkerding June

2 September 2008

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: Analytical Results: Soil Beneath Liner in the Temporary Tank Storage Area Approved in March 2008

Dear Mr. Jones;

Attached please find the results for the lab analysis of the soil beneath the liner from the temporary tank storage area approved in March 2008.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

dear  $\mathcal{S}$ 

John Volkerding General Manager2



August 20, 200

Project No. 03058-0006

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

Phone (505) 486-3078

#### **RE: TCLP SAMPLE UNDER LINER**

Dear Mr. Barnes:

Attached please find the results of the lab analysis from the secondary containment area at Basin Disposal 200 Montana Road, San Juan County, New Mexico.

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.

Kendra Schroeder Environmental Administrator kschroeder@envirotech-inc.com

Enclosure



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

Client:	Basin Disposal	Project #:	03058-0006
Sample ID:	Composite Under Liner	Date Reported:	07-29-08
Laboratory Number:	46392	Date Sampled:	07-15-08
Chain of Custody No:	4793	Date Received:	07-15-08
Sample Matrix:	Soil	Date Extracted:	07-25-08
Preservative:	Cool	Date Analyzed:	07-28-08
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	9.3	0.1
Total Petroleum Hydrocarbons	9.3	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

Analyst

Review Water



#### EPA Method 8015 Modified

Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

Client:	QA/QC		Project #:		N/A
Sample ID:	07-28-08 QA	VQC	Date Reported:		07-29-08
Laboratory Number:	46472		Date Sampled:		N/A
Sample Matrix:	Methylene Chi	loride	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		07-28-08
Condition:	N/A		Analysis Reques	ted:	ТРН
				n n population P	
Gasoline Range C5 - C10	05-07-07	1.0069E+003	1.0073E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0110E+003	1.0114E+003	0.04%	0 - 15%
Gasoline Range C5 - C10		ND		0.2	
Diesel Range C10 - C28		ND		0.1	
Total Petroleum Hydrocarbons		ND		0.2	
	i Hini				
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%	
Diesel Range C10 - C28	9.4	9.3	1.1%	0 - 30%	
Sateral					
Gasoline Range C5 - C10	ND	250	246	98.4%	75 - 125%
Diesel Range C10 - C28	9.4	250	257	99.2%	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 46472 - 46473, 46492 - 46495, and 46392.

Analyst

mister on Walter Review

### **WIROTE** ACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Client:	Basin Disposal	Project #:	03058-0006
Sample ID:	Composite Under Liner	Date Reported:	07-23-08
Chain of Custody:	4793	Date Sampled:	07-15-08
Laboratory Number:	46392	Date Received:	07-15-08
Sample Matrix:	Soil	Date Analyzed:	07-23-08
Preservative:	Cool	Date Extracted:	07-23-08
Condition:	Cool and Intact	Analysis Requested:	8260 VOC

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			Det.	Dilution
Parameter	Concentration	Units	Limit	Factor
Benzene	ND	(ug/Kg)	1.0	1
Toluene	ND	(ug/Kg)	1.0	1
Ethylbenzene	ND	(ug/Kg)	1.0	1
Xylenes, Total	ND	(ug/Kg)	1.0	1
Methyl tert-butyl ether (MTBE)	ND	(ug/Kg)	1.0	1
1,2,4-Trimethyłbenzene	ND	(ug/Kg)	1.0	1
1,3,5-Trimethylbenzene	ND	(ug/Kg)	1.0	1
1,2-Dichloroethane (EDC)	ND	(ug/Kg)	1.0	1
1,2-Dibromoethane (EDB)	ND	(u <b>g/Kg</b> )	1.0	1
Naphthalene	ND	(ug/Kg)	1.0	1
1-Methylnaphthalene	ND	(u <b>g/Kg</b> )	2.0	1
2-Methylnaphthalene	ND	(u <b>g/Kg</b> )	2.0	1
Bromobenzene	ND	(ug/ <b>Kg</b> )	1.0	1
Bromochloromethane	ND	(ug/Kg)	1.0	1
Bromodichloromethane	ND	(ug/Kg)	1.0	1
Bromoform	ND	(ug/Kg)	1.0	1
Bromomethane	ND	(ug/Kg)	1.0	1
Carbon Tetrachloride	ND	(ug/Kg)	1.0	1
Chlorobenzene	ND	(ug/Kg)	1.0	1
Chloroethane	ND	(u <b>g/Kg</b> )	2.0	1
Chloroform	ND	(ug/Kg)	1.0	1
Chloromethane	ND	(ug/Kg)	1.0	1
2-Chlorotoluene	ND	(ug/Kg)	1.0	1
4-Chlorotoluene	ND	(ug/Kg)	1.0	1
cis-1,2-Dichloroethene	ND	(ug/Kg)	1.0	1
cis-1,3-Dichloropropene	ND	(ug/Kg)	1.0	1
1,2-Dibromo-3-chloropropane	ND	(ug/Kg)	2.0	1
Dibromochloromethane	ND	(ug/Kg)	1.0	1
Dibromoethane	ND	(ug/Kg)	2.0	1
1,2-Dichlorobenzene	ND	(ug/Kg)	1.0	1
1,3-Dichiorobenzene	ND	(ug/Kg)	1.0	1
1,4-Dichlorobenzene	ND	(ug/Kg)	1.0	1
Dichlorodifluoromethane	ND	(ug/Kg)	1.0	1
1,1-Dichioroethane	ND	(ug/Kg)	1.0	1
1,1-Dichloroethene	ND	(ug/Kg)	1.0	1
1,2-Dichloropropane	ND	(ug/Kg)	1.0	1
1,3-Dichloropropane	ND	(ug/Kg)	1.0	1
2,2-Dichloropropane	ND	(ug/Kg)	1.0	1
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## PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Sample ID:	Basin Disposal					
Laboratory Number:	Composite Under Liner 46392				page 2	
Laboratory Number.	· · · · · · · · · · · · ·	Concentration				
Parameter		Concentration		Det.	Dilution	
		(ug/Kg)	Units	Limit	Factor	
1,1-Dichloropropene		ND	(ug/Kg)	1.0	1	
Hexachlorobutadiene		ND	(ug/Kg)	1.0	1	
Isopropylbenzene		ND	(ug/Kg)	1.0	1	
4-Isopropyltoluene		ND	(ug/Kg)	1.0	1	
Methylene Chloride		ND	(ug/Kg)	3.0	1	
n-Butylbenzene		ND	(ug/Kg)	1.0	1	
n-Propylbenzene		ND	(ug/Kg)	1.0	1	
sec-Butylbenzene		ND	(ug/Kg)	1.0	1	
Styrene		ND	(ug/Kg)	1.0	1	
tert-Butylbenzene		ND	(ug/Kg)	1.0	1	
Tetrachloroethene (PCE)		ND	(ug/Kg)	1.0	1	
1,1,1,2-Tetrachloroethane		ND	(ug/Kg)	1.0	1	
1,1,2,2-Tetrachloroethane		ND	(ug/Kg)	1.0	1	
trans-1,2-Dichloroethene		ND	(ug/Kg)	1.0	1	
trans-1,3-Dichloropropene	)	ND	(ug/Kg)	1.0	1	
Trichloroethene (TCE)		ND	(ug/Kg)	1.0	1	
Trichlorofluoromethane		ND	(ug/Kg)	1.0	1	
1,2,3-Trichlorobenzene		ND	(ug/Kg)	1.0	1	
1,2,4-Trichlorobenzene		ND	(ug/Kg)	1.0	1	
1,1,1-Trichloroethane		ND	(ug/Kg)	1.0	1	
1,1,2-Trichloroethane		ND	(ug/Kg)	1.0	1	
1,2,3-Trichloropropane		ND	(ug/Kg)	2.0	1	
Vinyl Chloride		ND	(ug/Kg)	2.0	1	
Surrogates:				Rec. Limits		
Dibromofluoromethane		97.0	% Recovery	78.6-115	1	
1,2-Dichloroethane-d4		105	% Recovery	74.6-123	1	
Toluene-d8		105	% Recovery	84.2-115	1	
4-Bromofluorobenzene		103	% 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 Yard.

Analyst

Periew Cetter



### **QUALITY ASSURANCE / QUALITY CONTROL**

### DOCUMENTATION

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#### EPA Method 8260B

Volatile Organic Compounds by GC/MS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-08
Laboratory Number:	07-23 VOA	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-23-08
Condition:	N/A	Analysis Requested:	8260 VOC

	Concentration		Det.	Dilution
Parameter	(ug/L)	Units	Limit	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
Naphthalen <del>e</del>	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
Chioroethane	ND	(ug/L)	2.0	1
Chloroform	ND	(ug/L)	1.0	1
Chloromethane	ND	(ug/L)	1.0	1
2-Chiorotoluene	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	NĎ	(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

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#### EPA Method 8260B

Volatile Organic Compounds by GC/MS Quality Assurance Report

Client: Sample ID:	QA/QC Laboratory Blank				page 2
Laboratory Number:	07-23 VOA				, .
		Concentration		Det.	Dilution
Parameter		(ug/L)	Units	Limit	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-isopropyttoluene		ND	(ug/L)	1.0	1
Methylene Chioride		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 (PC	(E)	ND	(ug/L)	1.0	1
1,1,1,2-Tetrachloroeth	•	ND	(ug/L)	1.0	1
1,1,2,2-Tetrachloroeth		ND	(ug/L)	1.0	1
trans-1,2-Dichloroethe		ND	(ug/L)	1.0	1
trans-1,3-Dichloroprop		ND	(ug/L)	1.0	1
Trichloroethene (TCE)		ND	(ug/L)	1.0	1
Trichlorofluoromethar		ND	(ug/L)	1.0	1
1,2,3-Trichlorobenzen	0	ND	(ug/L)	1.0	1
1,2,4-Trichlorobenzen		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-Trichloropropan	9	ND	(ug/L)	2.0	1
Vinyl Chloride		ND	(ug/L)	2.0	1
Surrogates:	-			Rec. Limits	
Dibromofluoromethan	9	104	% Recovery	78.6-115	1
1,2-Dichloroethane-d4		110	% Recovery	74.6-123	1
Toluene-d8		110	% Recovery	84.2-115	1
4-Bromofluorobenzen	e	102	% 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 46392.

Analyst

Review Matter

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

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N/A Project #: Client: QA/QC 07-25-08 Date Reported: Sample ID: **Daily Calibration** Date Sampled: N/A 07-23 QA/QC Laboratory Number: Date Received: N/A Sample Matrix: Water N/A Date Analyzed: 07-23-08 Preservative: 8260 VOC Analysis Requested: N/A Condition:

. . . . . . . . . . . .

	Concentration		-	% Recovery
Parameter	(ug/L)	Result	% Recovered	Limits
Research	100	100	100	80 - 120
Benzene Toluene	100	109	109	80 - 120
	100	103	103	80 - 120
Ethylbenzene Yedenen Total	100	83.8	83.8	80 - 120
Xylenes, Total	100	101	101	80 - 120
Methyl tert-butyl ether (MTBE)	100	106	106	80 - 120
1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	100	100	100	80 - 120
1,2-Dichloroethane (EDC)	100	95.8	95.8	80 - 120
1,2-Dibromoethane (EDB)	100	109	109	80 - 120
Naphthalene	100	113	113	80 - 120
1-Methylnaphthalene	100	94.9	94.9	80 - 120
2-Methylnaphthalene	100	96.0	96.0	80 - 120
Bromobenzene	100	107	107	80 - 120
Bromochloromethane	100	97.6	97.6	80 - 120
Bromodichloromethane	100	96.0	<b>96</b> .0	80 - 120
Bromoform	100	105	105	80 - 120
Bromomethane	100	98.9	98.9	80 - 120
Carbon Tetrachloride	100	94.0	94.0	80 - 120
Chiorobenzene	100	108	108	80 - 120
Chioroethane	100	105	105	80 - 120
Chloroform	100	91.2	91.2	80 - 120
Chloromethane	100	112	112	80 - 120
2-Chlorotoluene	100	107	107	80 - 120
4-Chiorotoluene	100	113	113	80 - 120
cis-1,2-Dichloroethene	100	1 <b>10</b>	110	80 - 120
cis-1,3-Dichloropropene	100	101	101	80 - 120
1,2-Dibromo-3-chioropropane	100	115	115	80 - 120
Dibromochloromethane	100	103	103	80 - 120
Dibromoethane	100	105	105	80 - 120
1,2-Dichlorobenzene	100	113	113	80 - 120
1,3-Dichlorobenzene	100	109	109	80 - 120
1,4-Dichlorobenzene	100	107	107	80 - 120
Dichlorodifluoromethane	100	99,9	99.9	80 - 120
1,1-Dichloroethane	100	97.5	97.5	80 - 120
1,1-Dichloroethene	100	98.3	98.3	80 - 120
1,2-Dichloropropane	100	103	103	80 - 120
1,3-Dichloropropane	100	107	107	80 - 120
2,2-Dichloropropane	100	98.2	98.2	80 - 120
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#### EPA Method 8260B Volatile Organic Compounds by GC/MS Quality Assurance Report

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Client:	QA/QC				
Sample ID:	Daily Calibration				page 2
Laboratory Number:	07-23 QA/QC	_			
		Concentration	l		% Recovery
Parameter		(ug/L)	Result	% Recovered	Limits
1,1-Dichloropropene		100	98.2	98.2	80 - 120
Hexachlorobutadiene		100	91.0	91.0	80 - 120
isopropylbenzene		100	105	105	80 - 120
4-Isopropyltoluene		100	107	107	80 - 120
Methylene Chloride		100	97.5	97.5	80 - 1 <b>2</b> 0
n-Butylbenzene		100	108	108	80 - 120
n-Propylbenzene		100	103	103	80 - 1 <b>2</b> 0
sec-Butylbenzene		100	107	107	80 - 120
Styrene		100	105	105	80 - 120
tert-Butylbenzene		100	109	109	80 - 120
Tetrachloroethene (PCE)		100	104	104	80 - 120
1,1,1,2-Tetrachloroethane	1	100	105	105	80 - 120
1,1,2,2-Tetrachloroethane	2	100	114	114	80 - 120
trans-1,2-Dichloroethene		100	94.2	94.2	80 - 120
trans-1,3-Dichloropropen	8	100	102	102	80 - 120
Trichloroethene (TCE)		100	104	104	80 - 120
Trichlorofluoromethane		100	96.7	<b>96</b> .7	80 - 120
1,2,3-Trichlorobenzene		100	111	111	80 - 120
1,2,4-Trichlorobenzene		100	114	114	80 - 120
1,1,1-Trichloroethane		100	97.0	97.0	80 - 120
1,1,2-Trichloroethane		100	100	100	80 - 120
1,2,3-Trichloropropane		100	112	112	80 - 120
Vinyl Chloride		100	105	105	80 - 120
Surrogates:				Rec. Limits	
Dibromofluoromethane		100	% Recovery	78.6-115	
1,2-Dichloroethane-d4		110	% Recovery	74.6-123	
Toluene-d8		91.3	% Recovery	84.2-115	
4-Bromofluorobenzene		92.1	% 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 46392.

Analyst

Alistin m Walter

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

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spikes	Date Reported:	07-25-08
Laboratory Number:	07-23-VOA - 46392	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-23-08
Condition:	N/A	Analysis Requested:	8260 VOC

Spike	ī	Jnits: ug/K	g	19 de ante 2000	Recovery	Det.
Analyte	Sample	Added	Result	%Recovery	Limits	Limit
Benzene	ND	100.0	101	101%	85.3 - 120	1.0
Toluene	ND	100.0	101	101%	73 - 123	1.0
Chlorobenzene	ND	100.0	102	102%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100.0	115	115%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100.0	97.9	97.9%	76.1 - 126	1.0
Spike Duplicate	i	Jnits: ug/K	g		Recovery	Det.
Analyte	Sample	Added	Result	%Recovery	Limits	Limit
Benzene	ND	100.0	106	106%	85.3 - 120	1.0
Toluene	ND	100.0	100	99.9%	73 - 123	1.0
Chlorobenzene	ND	100.0	95.1	95.1%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100.0	115	115%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100.0	102	102%	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 46392.

Analyst

Review m Weeter

## PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

#### TRACE METAL ANALYSIS

~ -			00050 0000
Client:	Basin Disposal	Project #:	03058-0006
Sample ID:	Composite Under Liner	Date Reported:	07-25-08
Laboratory Number:	46392	Date Sampled:	07-15-08
Chain of Custody:	4793	Date Received:	07-15-08
Sample Matrix:	Soil	Date Analyzed:	07-23-08
Preservative:	Cool	Date Digested:	07-18 <b>-</b> 08
Condition:	Cool & Intact	Analysis Needed:	Total Metals
		Det.	-
1	Concentration	Limit	
Parameter	(mg/Kg)	(mg/Kg)	
Arsenic	0.003	0.001	
Barium	10.5	0.001	
Cadmium	0.002	0.001	
Chromium	0.033	0.001	
Copper	0.316	0.001	
Iron	55.8	0.001	
Lead	0.062	0.001	
Mercury	ND	0.001	
Manganese	4.05	0.001	
Selenium	ND	0.001	
Silver	ND	0.001	
Zinc	0.170	0.001	

ND - Parameter not detected at the stated detection limit.

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

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

Comments:

Basin Yard.

Analyst

Review

## PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

#### TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

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Client:		QA/QC		Project #:			N/A
Sample ID:		07-23-TM	QA/QC	Date Rep	orted:		07-25-08
Laboratory Number:		46392		Date Sam	pled:		N/A
Sample Matrix:		Soil		Date Rec	eived:		N/A
Analysis Requested:		Trace Me	etals	Date Anal	lyzed:		07-23-08
Condition:		N/A		Date Dige	ested:		07-18-08
	instrumen Slanik (mg/l		interation Linit	d Suria			
Conc. (mg/Kg)	ND		0.001	0.003	0.003	0.0%	0% - 30%
Barium	ND	ND	0.001	10.5	10.4	0.8%	0% - 30%
Cadmium	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.033	0.038	14.6%	0% - 30%
Copper	ND	ND	0.001	0.316	0.315	0.5%	0% - 30%
iron	ND	ND	0.001	55.8	58.0	3.9%	0% - 30%
Lead	ND	ND	0.001	0.062	0.064	2.6%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Manganese	ND	ND	0.001	4.05	4.50	11.2%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Zinc	ND	ND	0.001	0.170	0.179	5.5%	0% - 30%
Sake Sake		Soke	Sampl	- 1977 ALC - 4100 - 140			Acceptance
Conc. (mg/kg)		Added		Semple	ant monther water one.		Range
Arsenic		0.250	0.003	0.254	100.4%		80% - 120%
Barium		0.500	10.5	11.2	102%		80% - 120%
Cadmium		0.250	0.002	0.255	101%		80% - 120%
Chromium		0.500	0.033	0.504	95%		80% - 120%

Barium	0.500	10.5	11.2	102%	80% - 120%
Cadmium	0.250	0.002	0.255	101%	80% - 120%
Chromium	0.500	0.033	0.504	95%	80% - 120%
Copper	0.500	0.316	0.854	105%	80% - 120%
Iron	0.500	55.8	56.7	101%	80% - 120%
Lead	0.500	0.062	0.577	103%	80% - 120%
Mercury	0.100	ND	0.099	99.0%	80% - 120%
Manganese	0.500	4.05	4.65	102%	80% - 120%
Selenium	0.100	ND	0.097	97.0%	80% - 120%
Silver	0.100	ND	0.101	101%	80% - 120%
Zinc	0.500	0.170	0.700	105%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References:

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

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

Comments:

QA/QC for Sample 46392.

Analyst

<u>Review</u> <u>Review</u>

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#### Water Analysis

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				-
Client:	Basin Disposał	Project #:		03058-0006
Sample ID:	Composite Under Liner	Date Repo	orted:	07-21-08
Laboratory Number:	46392	Date Sam	pled:	07-15-08
Sample Matrix:	Soli Extract	Date Rece	eived:	07-15-08
Preservative:	Cool	Date Analy	yzed:	07-17 <b>-</b> 08
Condition:	Cool & Intact	Chain of C	ustody:	4793
-	A	nalytical		
Paramet		Result	Units	
рН		7.34	su	I
Total Dissolved S	olids @ 180C	864	mg/L	
Nitrate Nitrogen		2.04	mg/L	
Cyanide		<0.1	mg/L	
Fluoride		0.485	mg/L	
Chloride		55.2	mg/L	
Sulfate		616	mg/L	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Basin Yard.

Analyst

ml.)cetters Mistin Review

	Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)			Under line 12 Thisky :235	ion Date	Client Phone No.: (505) 166 - 307 8	Client Address: 200 Montana R. Shan Field	Client BASIN Disposed	
579			A			35 46392	Sample Lab No. Time	Client No.: 03058-0006	Sampler Name: 6. Cractric	Project Name / Location: Basing Varia	CHAIN
5796 U.S. Highway 64 - Farmington, New Mexico 87401			Vision 1335			50 1 1- 640 =	Matrix Containers HCCp HNO3	°C		cation:	CHAIN OF CUSTODY REC
Stori, New Mexico 87401 • (505) 632-0615	gn	Received by: (Signature)	Received by: (Signature)				TPH ( BTEX VOC	Method (Method Method 72 Method 72 Method 74 Method	d 8021) 8260) Is	1703	ODY RECORD
5 san yuan reproduction 578-129			Date 7/15/08				РАН ТРН ( Сцан ЦГС Род 810 804	o PAI	221, +2	~	ان با با
fuction 578-129			Time 335			7	+	le Cool	t	_	

#### EPA METHOD 8270 PHENOLS

Client:	Basin Disposal	Project #:	03058-0006
Sample ID:	Composite Under Liner	Date Reported:	07- <b>25-08</b>
Laboratory Number:	46392	Date Sampled:	07-15-08
Chain of Custody:	4793	Date Received:	07-15-08
Sample Matrix:	Soil	Date Extracted:	07-22-08
Preservative:	Cool	Date Analyzed:	07-24-08
Condition:	Intact	Analysis Requested:	Phenois

ι.	Concentration	Detection Limit	Regulatory Limit
Parameter	(mg/Kg)	(mg/Kg)	(mg/Kg)
o-Cresol	ND	0.005	200
p,m-Cresol	ND	0.005	200
2,4,6-Trichlorophenol	ND	0.005	2.0
2,4,5-Trichlorophenol	ND	0.005	400
Pentachlorophenol	ND	0.005	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol 2,4,6-Tribromophenol	98.0% 97.0%

References: Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8270, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Note:

Comments: Basin Yard.

Analyst

mulater Misthe Review

#### EPA METHOD 8270 PHENOLS Quality Assurance Report

QA/QC			Project #:	N/A	
07-24-TCA QA	/QC		Date Reporte	d:	07-25-08
46392			Date Sample	d:	N/A
2-Propanol			Date Receive	ed:	N/A
N/A			Date Analyze	d:	07-24-08
N/A			Analysis Req	uested:	Phenols
Instrument	Method	Detection	Sample	Duplicate	Percent
Blank	Blank	Limit	•		Diff.
ND	ND	0.005	ND	ND	0.0%
ND	ND	0.005	ND	ND	0.0%
ND	ND	0.005	ND	ND	0.0%
ND	ND	0.005	ND	ND	0.0%
ND	ND	0.005	ND	ND	0.0%
	07-24-TCA QA 46392 2-Propanol N/A N/A Instrument Blank ND ND ND ND	07-24-TCA QA/QC 46392 2-Propanol N/A N/A Instrument Method Blank Blank ND ND ND ND ND ND ND ND ND ND	07-24-TCA QA/QC 46392 2-Propanol N/A N/A Instrument Method Detection Blank Blank Limit ND ND 0.005 ND ND 0.005 ND ND 0.005 ND ND 0.005	07-24-TCA QA/QC     Date Reporte       46392     Date Sample       2-Propanol     Date Receive       N/A     Date Analyze       NA     Date Analyze       ND     Doto S       ND     ND       ND     ND       ND     ND       ND     ND       ND     ND       ND     ND       ND     ND	07-24-TCA QA/QC     Date Reported:       46392     Date Sampled:       2-Propanol     Date Received:       N/A     Date Analyzed:       N/A     Analysis Requested:       Instrument     Method     Detection       Blank     Blank     Limit       ND     ND     0.005       ND     ND     ND       ND     ND     ND

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8041, Phenois, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Comments:

QA/QC for Sample 46392.

Analyst

hrester of Walter Review

Hall <b>H</b>	Environmen	tal Ana	lysis La	boratory	, Inc.
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Date: 13-Aug-08

CLIENT:	Envirotech			Clien	t Sample ID:	46392-5 p	t Composite Under Line
Lab Order:	0807220			Col	lection Date:	7/15/2008	12:35:00 PM
Project:	<b>Basin Disposal</b>			Da	te Received:	7/17/2008	
Lab 1D:	0807220-01				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8082: PCB'S						Analyst: JMP
Aroclor 1016		ND	0.020		mg/Kg	1	7/26/2008 7:17:59 AM
Arocior 1221		ND	0.020		mg/Kg	1	7/26/2008 7:17:59 AM
Aroctor 1232		ND	0.020		mg/Kg	1	7/26/2008 7:17:59 AM
Aroclor 1242		ND	0.020		m <b>g/Kg</b>	1	7/28/2008 7:17:59 AM
Aroclor 1248		ND	0,020		mg/Kg	1	7/26/2008 7:17:59 AM
Aroclor 1254		ND	0.020		mg/Kg	1	7/28/2008 7:17:59 AM
Aroclor 1280		ND	0.0 <b>20</b>		mg/Kg	1	7/28/2008 7:17:59 AM
Surr: Decach	nlo <b>robiphenyi</b>	47.6	15.8-133		%REÇ	1	7/26/2008 7:17:59 AM
EPA METHOD	8310: PAHS						Analyst: DMF
Naphthalene		ND	0.25		mg/Kg	1	7/30/2008 3:18:04 AM
1-Methylnaphth	alene	ND	0,25		mg/Kg	1	7/30/2008 3:18:04 AM
2-Methylnaphth	alene	ND	0.25		mg/Kg	1	7/30/2008 3:18:04 AM
Acenaphthylene	•	ND	0.25		mg/Kg	1	7/30/2008 3:18:04 AM
Acenaphthene		ND	0.25		mg/Kg	1	7/30/2008 3:18:04 AM
Fluorene		ND	0.030		mg/Kg	1	7/30/2008 3:18:04 AM
Phenanthrene		NÐ	0.015		mg/Kg	1	7/30/2008 3:18:04 AM
Anthracene		ND	0.015		mg/Kg	1	7/30/2008 3:18:04 AM

0.020

0.025

0.010

0.011

0.010

0.010

0.010

0.010

0.010

0.10

40.7-93.1

•

mg/Kg

%REC

1

1

1

1

1

1

1

1

1

1

1

7/30/2008 3:18:04 AM

ND

53.9

Qualifiers:

Fluoranthene

Benz(a)anthracene

Benzo(b)fluoranthene

Benzo(k)fluoranthene

Dibenz(a,h)anthracene Benzo(g,h,i)perylene

Indeno(1,2,3-cd)pyrene

Surr: Benzo(e)pyrene

Benzo(a)pyrene

Pyrene

Chrysene

- . Value exceeds Maximum Contaminant Level Value above quantitation range
- E
- Analyte detected below quantitation limits J
- Not Detected at the Reporting Limit ND
- S Spike recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

LAB ID: PA39-401

#### Benchmark Analytics, Inc.

4777 Saucon Creek Roa	d
Center Valley, PA 18034	ł

Work Order: 08072639

Phone: (610) 974-8100 Fax: (610) 974-8104

SEND DATA TO: WO#: 08072639 NAME: Ann Thome COMPANY: Hall Environmental Analysis Lab, Inc. PAGE: 1 of 1 ADDRESS: 4901 Hawkins NE, Suite D Albuquerque, NM 87109-4372 PO#: PWS ID# TEST REPORT PHONE: (505) 345-3975 FAX: (505) 345-4107 0807220 DATE: 07/18/2008 8:50 RECEIVED FOR LAB BY: SMM Page 1 of 1 Lab ID: 06072639-001A SAMPLE: 0907220-01B, 46392-5 pt Composite Under Grab Liner SAMPLED BY: Client Sample Time: 07/16/2008 12:35 Anatysia Start Analysis End Analyst." Test Result Method BL 07/29/08 07/23/08 15:10 JRA-CV Uranium 0.312 mg/Kg-dry EPA 6020 PERCENT MOISTURE 07/18/06 12:45 07/21/08 LMH-CV Percent Moleture 1.0 % .....

**REMARKS:** 

The above test procedures meet all the requirements of NELAC and relate only to these samples.

\* CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

climet.

DATE:

LAB ID: PA39-401

OCNO DATA TO

#### BENCHMARK ANALYTICS, INC. 4777 Saucon Creek Road Center Valley, PA 18034-9004

Work Order: 08072639

#### PHONE (610) 974-8100 FAX (610) 974-8104

NAME: COMPANY: ADDRESS:	Ann Thorne Hali Environment 4901 Hawkins Ni Albuquerque, Ni	E, Sulte D				WO7 PAG PO#	E: 1 of 1		
PHONE: FAX:	(505) 345-3975 (505) 345-4107		1	EST REP	ORT	PW	s id#		
0807220 RECEIVED	FOR LAB BY: SMI	M	DA	TE: 07/16/	2008 B:50				Page 1 of I
RECEIVED	FOR LAB BY: SMI 807220-018, 46392- ED BY: Client	5 pt Composi	te Under		: 08072839-001A	Grab		Ĭ	Page 1 of 1
RECEIVED	807220-01 <b>8, 46392-</b> ED BY: Client	5 pt Composi	te Under	Liner Lab ID	: 08072839-001A		Analysis Start		
RECEIVED SAMPLE: 01 SAMPLI Iggi	807220-01 <b>8, 46392-</b> ED BY: Client Re	5 pt Composi S	<b>le Under</b> ampie Tim	Liner Lab ID e 07/15/2008	: 08072639-001A 12:35		Anelysis Start 07/29/06 12:20	Analysia En	

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples. " CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre, PA

MANAGER

climet.

DATE:

8/13/2008

3

#### Hall Environmental Analysis Laboratory, Inc.

#### Date: 13-Aug-08

Client: Envirotech Project: Basin Dispos	al						Wor	k Order: 0807220
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD R	PDLimit Qual
Method: EPA Method 8082: PC	B's				Batch II	): 16637	Anaiysis Date:	7/25/2008 9:15:23 AM
Sample ID: MB-16637		MBLK			Det(CII II	): 100 <i>01</i>	Allaiyala Dala.	112012000 9.10.23 MM
Aroclar 1018	ND	mg/Kg	0.020					
Aroclor 1221	NÐ	mg/Kg	0.020					
Aroclar 1232	ND	mg/Kg	0.020					•
Aroclar 1242	ND	mg/Kg	0.020					
Aroclor 1248	ND	mg/Kg	0.020					
Aroclor 1254	ND	mg/Kg	0.020					
Aroclar 1260	ND .	mg/Kg	0,020					
Sample ID: LCS-16537		LCS			Batch II	D: <b>18637</b>	Analysis Date:	7/25/2008 10:05:06 AM
Aroctor 1260	0.03885	mg/Kg	0.020	31.1	23.7	105		
Sample ID: LCSD-16537		LCSD			Batch II	): <b>18537</b>	Analysis Date:	7/25/2008 10:54:01 AM
Aroclar 1260	0.06295	mg/Kg	0.020	60.4	23.7	105	47.3	20 R

#### **QA/QC SUMMARY REPORT**

Qualifiers:

۰.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD autside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page I

Benchmark Analytics, Inc.	Analytics, I	·										Date: 13-Aug-08	14g-08	
CLLIENT: Work Order: Project:	Hall Environm 08072639 0807220	Hall Environmental Analysis Lab, Inc. 08072639 0807220		۰ ۱				{ <b>`</b> ₹  :	NALY	TIC	AL QC SU TestCode	ANALYTICAL QC SUMMARY REPORT TestCode: MF ICPMS S	REPORT	;   _
Sample ID. MBLK ES 072308 A Client ID: PBS	ES 072308 A	SampType: MBLK Batch ID: ES 072308 A	K .	stCode: ME_ICP TestNo: SW6020	TestCode: ME_ICPMIS_ TestNo: SW6020		Uaits: mg/Kg	~	Prep Date: Analysis Date: 7/22/2008	ter 12	3/2008	RunNo: 25659 SeqNo: 485703	e 5	
Analyte		Result	ಸ್ಥ	SPK value		SPK Ref Val		SREC 10	LowLimit 1	HighLimit	RPD Ref Var	04RPD	RPDLimit Qual	
Uranium		< 0.220	0.220											]
Sample ID: LFB ES 072308 A Citent ID: ZZZZZ	<b>S 072308 A</b> Z	SampType; LFB Batch ID: ES 072309	Test 108 A Ta	stCode: ME_ICP	TestCode: ME_ICPMS_ TestNo: SWM6020	1	Units: mg/Kg		Prep Date: Aralysis Date: 7/23/2008	te: 72	3/2008	RunNo: 25658 SeqNo: 485704	R Ž	
Analyte		Result	<u>8</u>	SPK	alue SP	SPK value SPK Ref Val		KREC L	- Ani he	HighLimi	Low Limit High Limit RPD Ref Val	0-01%	RPDLimit Qual	 · 78
Uranium		18.3	0.243		18.44			94.0	8	115				Ī
Sample ID: MBLK ES 072308 A Client ID: PBS	ES 072308 A	SampType: MBLK Batch (D; ES 072308 A	11	secode: ME_KCPI TestNo: SW6020	TestCode: ME_ICPMS_ TestNo: SW6020	11	Units: mg/Kg		Prep Daite: Analysis Date:		1123/2008	RunNo: 25733 SeqNo: 487433	2 3	
Analyte		Rescut	POL	SPK value		SPK Ref Val		%REC IT	LowLink HighLink	HighLim	t RPD Refval	0 ANY	RPDLim# Qual	
Uranium		< 0.220	0.220											]
Sample ID: LFB ES 072308 A Client ID: 222222	A 802270 S	SampType: LFB Batch ID: ES 072308 A		setCode: ME_ICP	TestCode: ME_ICPMS TestNo: SW6020	1	Units: mg/Kg		Prep Date: Analysis Date: 7/23/2008	ate: 17	3/2008	Runtio: 25733 SeqNo: 487434	124 124	
Analyte		Result	ğ	SPK	SPK value SP	SPK Ref Val		KREC L	withit	HighLim	LowLimit HighLimit RPD Ref Val	Gabk	RPDLimk Qual	
Urankeen			0.243		18,44	<b>0</b>			8	115				
Qualifiert: B	Analyte detected Analyte reported C Sample pH was	B Analyse detected in the associated Method Bis J Analyte reported below quantitation lineits PHQC Sample pH was >2. Due so matrix effects, not	Bitaak motaali	0.00	Limit of 6 Value upo	etection inc we calification intx effects	Limit of detection increased due to matrix interference an Value store calitaration range but within annually verific Due to matrix effects, not all quality control parameters	o maturix is within an	nitericance numbry veri	효 铭 ~   ෆ 달 뜨		Value above quantitation range Lead basod paint is defined as a paint with greater tha RPD outside accepted recovery limits		Page 1 of 5

CLIENT: Hall Environmental / Work Order: 08072639 Project: 0807220	Hall Environmental Analysis Lab, Inc. 08072639 0807220		: ; ; ;	-4 -	ANALYI	ANALYTICAL QC SUMMARY REPORT TestCode: PMOIST	MMARY I Pmoist	RY REPOR	RT
Sample ID. MB-R25211 Client ID: PBS	SampType: MBLK Batch ID: R25211	TestCode: PMOIST TestNa: D2216	Calis: &		Prep Date: Analysis Date: 7/15/2008	7/18/2008	Runno: 25211 Sequo: 476383		
Analyts	Result	POL SPK vatue S	SPK-Raf Vat	%REC	LowLimit Hig	Low-Limit Highlind RPD Ref Var	WRPD RPDLimit		REN O
Sample ID: 08072539-001ADUP Client ID: 08072230-018, 46392-5 pt	Samp <sup>T</sup> ype Batch (D	TestCode: PMOIST TestNo: 02216	Units: %		Prep Date: Analysis Date: 7/19/2008	7/18/2008	RumNo: 25211 SeqNo: 476365		
Analyte	Result	POL SPK vatue S	SPK Ref Vai	%REC	LowLiniñ Highlimi	Atimit RPD Ref Val	Jimloga Ogra		Qual
Percent Moisture	4 <b>1</b>	σ			· ·	<b>000</b>	•	ຊ	

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Limit of detection increased due to marix interference an E Value above quantitation nange. Page 2 of 5 Value above culturation range but within annually verifie LBP Lead based paint is defined as a paint with grader than Due to mutrich efficate, not all quality control parameters ס ר ס PHOC Sample pH was >2. Doe to guatrix cifects, not all quality Analyte detected in the associated Method Effank Analyte reported below quantitation limits **A** ¬

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Qualifiers

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RPD outside accepted recovery limits

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Work Order: 08072639 Project: 0807220	0807220 0807220			•	~4	ANALY		LL QC SU estCode: B	ANALYTICAL QC SUMMARY REPORT TestCode: RA226_903.0	EPOR	<b>[</b>
Sample ID; BLANK Client ID: PBW	SampType: MBLK Batch ID: R26260	TestCode: RAZ26_903.0 TestNo: E903.0	11	Units: pCAL		Prep Date: Anelysis Date:		BDOZYSZIT	RunNo: 28260 SeqNo: 495658		
Aralyte	Resut	PQL SPK value	SPK Ref Vel		%REC	LowLimit H	HighLimt	RPD Ref Val	WRPD RPDI	RPOLIMIK Q	Qual
Radium-228	0.05										
Sample ID: EXTR. BLANK	SampType: MBLK	TestCode: RA228_903.0		Units: pCIAL		Prep Date:	jaj		RunNo: 26260		
Client ID: PBW	Batch ID: R26260	N N				a	<b>103</b>	8008	<b>3</b>		•
Analyte Radium-226	Rejsult 0.03	PQL SPK value	SPK Ref Val	{	%REC	LowLimit H	Highlimit	RPD Ref Val	0°47 0°47%	Reputimit o	Band
Saturda ID- 1 CS	Setter Ture: LCS	TestCode: RA226 903.0		Units: aCiA		Preo Date:			RunNo: 25266		
Client ID. LCSW	Batch ID: R26260	TestNa; E903.8				Analysis Dale:		7/29/2008	SeaMo: 490860		
Analyte	Result	PQL SPK value	SPK Ref Val		%REC	LowLimit HighLimit	lign.imit	RPD Ref Val	0429 042%	Reputinit C	Qual
Radium-226	11.46	10.66		0	<b>5</b>	74	126				
Sample ID: LCS DUP1	SempType: LCSD	TestCode: RA226_903.0		Units: pCIA		Prep Date	Į.		RunNo: 26260		
Client ID: LCSS02	Batch ID: R26260	TestNo: E903.0	~			Analysis Date: 7/29/2008	rta: 7724	8002/4	SeqNo: 496681		
Anakyte	Result	POL · SPK value	SPK Ref Val		%REC	LowLmit HighLimit	fighi.imit	RPD Ref Val	DAR DOAR	RPDLimk (	Qual
Radium-226	13.28	10.66		0	¥ R	\$	<b>8</b> 2 F				
Sample ID: LCS DUP2 RC	SempType: LCSD	TestCode: RAZ26_903.0	1	Units: pCifl.		Prep Date:			RunNo: 26250		ļ
Client (D: LCS\$02	Batch IO: R28260	TestNo: E903.0	6			Analysis Date:		1/29/2004	SeqNo: 467922		
Analyta	Result	P.O.L. SPK value	SPK Ref Val		%REC	Low Int	-light.imit	Low hit High init RPD Ref Vai	%RPD RPC	RPDLimit (	Quat
Radium-226	12.05	10.01 88		0	113	*	126		00 . 19	<b>o</b> .	
Ometřífiers: B Analyte detecte	Analytic detocated in the associated Method Blant		t of detection	increased du	s to matric	Limit of detection increased due to matrix interference an	u S	Value above quantitation range	utitation range		Page 3 of 5
• ••	Assive reserved below association limits	Ļ	e ethore celito	ration mage	not within	Value above calibration range but within annually verifie	-	Load based paint	Load based paint is defined as a paint with greater that	the present	đ

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CLLENT: Hall Environm Work Order: 08072639 Prefect: 0807270	ental Analysis Lab, In	· · · · · · · · · · · · · · · · · · ·		n k , K	ANAL	ANALYTICAL QC SUMMARY REPORT	QC SUM	AL QC SUMMARY	IX REPOR	Ľ
Sample (D: BLANK	SampType: MBLK	TestCode: RA228_904.0 Units: pCiA	904.0 Units	pCiA.	Prep Date:	late:		RunNo: 26019		
Client (D; PEW	Batch ID: R28019	TestNa: E304.0			Analysis [	Analysis Date: 8/1/2008		SeqNa: 492231	5	···
Analyte	Result	POL SPK value	SPK Ref Val	MREC	LowLimit	HighLind RPD Ref Val	) Ref Val	GG73%	RPDLimit (	Que
Radium-228	-0.78		,							
Sample ID: LCS	SampType: LCS	TestCode: RA228_904.0 Units: pCiA.	1 904.0 Units	pCift	Prep Date:	jabitar.		Runivic: 26019		
Client ID: LCSW	Batch IC: F25019	TestNo: E804.0	-		Analysis (	Analysis Date: 8M/2006		SegNo: 492233	53	
Artalyte	Result	POL SPK value	SPK value SPK Ref Val	%REC		LowLimit HighLimit RPD Ref Val	D Ref Val	KRPD .	RPOLImit	Quat
Radium-228	12.33	11,42	0	108	57	143				
Sample (D: LFB-1	SampType: LFB	TestCode: RA228_904.0 Units: pCs/L	1 904.0 Units	pcift	Prep Date:	Jate:		RunNo: 28019		
Client ID: 27272	Batch ID: R26019	TestNo: E904.0	•		Analysis I	Analysis Date: 841/2008		SeqNo: 492234	*	
Analyte	Resut	PQL SPK value	SPK Ref Val	%REC		LowLimit HighLimit RPD Ref Val	D Ref Val	0.023%	RPDLimit	Quai
Radium-228	16.15	22.84	0	0.17	57	143				
Semple ID: LFB-2	SampType: LFB	TestCode: RAZ28_904.0		Units: pCi/L	Prep Date:	Dater		RumNo: 26019	. 6	
Client ID: 277272	Batch (D: R26019	Testino: E904.0			Analysis	Analysis Date: 8/1/2008		SeqNo: 482235	22	
Analyte	Result	POL SPK value	SPK value SPK Ref Val	<b>KREC</b>		LowLimit HighLimit RPD Ref Val	D Ref Val	%RPD	RPDLimit	Qual
Radium-228	10.67	22.84	D	47.0	57	143				s
Sample D: LFBD-1	SampType: LFBD	TestCode: RA228_904.0	Lgod.D Units	Units: pct/	Prep Date:	Date:		RunNo: 26019		
Client ID: 22222	Bakch ID: R26019	Testivo: E904.0			Analysis !	Analysis Date: 84/2008		SeqNo: 492236	8	
Analyte	Recut	PCIL SPK value	SPK Ref Val	%REC		LowLimit HighLinnit RPD Ref Vas	D Ref Vat	CI C	RPDLimit	Gual
Radium-228	19.77	22.84	Ø	87.0	21	143		60.0	0	

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Lituit of detection increased due to matrix indusfatement an E Value above quantitation range Page 4 of 5 Value above califoration range but within annually weithe LEBP Lead based paint is defined as a paint with granter than Due to matrix effects, not all quality control parameters R RPD outside accepted recovery limits 0 **- 0** PHQC Sample pH was >2 Due to man's effects, not all quality Aualyte detected in the associated Mathod Blank Analyte reported below quantitation limits l **a** -Qualifiers

vironmental Analysis Lab, Inc. 39 0	Hall Environnental Analysis Lab, Inc. 08072639 0807220				•	-	ANALN	TIC	ANALYTICAL QC SUMMARY REPORT TestCode: RA228_904.0	MMAR	V REPO	RT
	SampType: LFBD Batch (D: R26019	Test	TestCode: RA228_904.0 Units: pCiA TestNo: E904.0	904.0 U	tis: pCiA		Prep Date: Analysis Date: 8/1/2008		2008	RunNo: 26019 SeqNo: 492237	640 1/222	
	Result	ğ	POL SPK value SPK Ref Val	SPK Ref.	1	%REC	Low Lmit	HighLimk	%REC LOWLINE HighLink RPD Ref Val	Coby	SURPO RPOLIMIE Qual	Qual
	18.12		22.84			79.0	یا ا	143		11.0	0	

Litrait of distriction increased due to matrix intercharance an E Value shore quantization stange Page 5 of 5 Value above calibration range but within annually verifie LBP Lead besed pairs is defined as a paint with greater that R RPD outside accepted recovery limits Due to matrix effects, not all quality control parameters a - 0 PHQC Searphe pH was >2. Due to matrix effects, not all quality B. Austryte detected in the associated Method Blank
 I. Austryte reported below quantitation limits ļ Į Qualifiers

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#### Hall Environmental Analysis Laboratory, Inc.

Page 2

### **QA/QC SUMMARY REPORT**

Client: Project:	Envirotech Basin Disposal		_					/ork Order: 0807220
Analyte	Resi	lit Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit Qual
	thod 6310: PAHs				• • • •			
Sample ID: MB-16	602	MBLK			Batch	ID: 16602	Analysia Da	ite: 7/28/2008 7:09:44 AM
Naphthalene	ND	mg/Kg	0.25					
1-Methylnaphthalen	e ND	mg/Kg	0.25					
2-Methylnaphthalen	e ND	mg/Kg	0.25					
Aconaphthylene	ND	mg/Kg .	0.25					
Acenaphthene	ND	mg/Kg	0.25					
Fluorene	ND	mg/Kg	0.030					
Phenanihrene	ND	mg/Kg	0.015					
Anthracene	ND	mg/Kg	0.015					
Fluoran(hene	ND	mg/Kg	0.020					
Pyrene	ND	mg/Kg	0.025					
Benz(a)anthracene	ND	mg/Kg	0.010					
Chrysene	ND	mg/Kg	0.011					
Benza(b)fluoranthen	e ND	mg/Kg	0.010					
Benzo(k)fluoranthen	e ND	mg/Kg	0.010					
Benzo(a)pyrene	ND	mg/Kg	0.0013					
Dibenz(a,h)anthrace	ne ND	mg/Kg	0.010					
Benzo(g,h,l)perviene	ND	mg/Kg	0.010					
Indeno(1,2,3-cd)pyre		mg/Kg	0.10					
Sample ID: 'LCS-1	8502	LCS			Batch	ID: 16602	Analysis Da	te: 7/29/2008 7:57:42 AM
Naphthalene	1,267	mg/Kg	0.25	62.8	30.1	90.4		
1-Melhylnephthaland		•••	0.25	63.9	31.1	88.5		
2-Methylnaphthalen			0.25	63.3	32.2	69		
Acenaphihylene	1.234		0.25	61.7	29.5	94.2		
Acenaphthene	1,271		0.25	63.5	35.6	89.7		
Fluorene	0,124	•••	0.030	62.1	36.9	90.7		
Phenanthrene	0.068		0.015	62.9	37.2	95.3		
Anthracene	0.065		0.015	63.6	37.4	95.4		
	0.124		0.020	61.8	30,4	97.8		
Fluoranthane	0.124		0.025	64.4	33.3	100		
Pyrene Baaz/a)aathaanaa	0.120		0.025	66.2	38.9	102		
Benz(a)anthracene	0.013	••••	0.010	64.1	24.2	102		
Chrysene Benzo(b)fluoranthen		•••	0.011	68.0	24.2 35.5	102		
Benzo(k)/luoranthen Benzo(k)/luoranthen		mg/Kg	0.010	68.0	30.4	102		
Benzo(k)///Joranulien Benzo(a)pyrene	0.010		0.0013	BO.2	29.6	112		
Dibenz(a,h)anthrace		•••	0.010	35.0	29.3	108		
Benzo(g,h,i)perylene			0.010	92.0	21.3	116		

Quallfiers:

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for proparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

#### Hall Environmental Analysis Laboratory, Inc.

	Sample	Rec	eipt Ch	ecklist				
Client Name ENVIROTECH				Date Received	):		7/17/2008	
Work Order Number 0807220	· · · · X			Received by:	A	रङ	<b>A</b> D	
Checklist completed by:	¥			Sample ID la	bels chec	ked by:	trailinite	
Matrix:	Carrier name	<u>Gray</u>	hound					
Shipping container/cooler in good condition?		Yes		No 🗔	Not Pret	ent 🗌		
Custody seals intact on shipping container/cooler	?	Yes		No 🗖	Not Pres	vent 🗋	Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗖	N/A			
Chain of custody present?		Yes		No 🗖				
Chain of custody signed when relinquished and re-	colved?	Yes		No 🗖				
Chain of custody agrees with semple labels?		Y66		No 🗔				
Samples in proper container/bottle?		Yes		No 🗔				
Sample containers intact?		Yes		No 🗔				
Sufficient sample volume for indicated test?		Yes		No 🗖				
All samples received within holding time?		Yes	<b>2</b> .	No 🗔				
Water - VOA viais have zero headspace?	No VOA viais subm	itted		Yes 🗖	No			
Water - Preservation labels on bottle and cap mat	ch?	Yes		Νο	N/A			
Water - pH acceptable upon receipt?		Y <b>ə</b> s		No 🗖	N/A			
Container/Temp Blank temperature?			4°	<6° C Acceptable	,			
COMMENTS:				If given sufficient	time to co	<b>ioi</b> .		

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_\_
Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_\_
Comments: \_\_\_\_\_\_
Corrective Action \_\_\_\_\_\_

HALL FNVTRONMENTAL	ANALYSIS LABORATORY	www.hallenvironmental.com	NE - Albuquerque, NM 87109	3975 Fax 505-345-4107	Analysis request	Q.	-	(H) (09 (H) (09		EDG (Meth EDC (Meth 8310 (PVA 8081 Pestic 8081 Pestic 82608 (VO 8270 (Semi 72 active 72 active								¥ 10079	ter data uli in Alanda anti na Antina da Antina da Antina.
	: 	3	4901 Hawkins NE -	Tel. 505-345-3975				) 83 (†.6	108 p	BTEX + MT TPH Metho TPH (Metho							 	marks: REF ⊅0#	Any at the contract
			•							TM + X3T8			 					Remarks: REF	
Tum-Around Time:	lard 🗆 Rush	ame:	ii- Disposal	t#. 02059-0636		Manager:	CHRISTINE WALTERS	Greg Crabtree		d # Type 0807220	ا ا اعمام المعنى المعنى الم							ROFTIFE OI:P Statement	
Tum-Aro	A Standard	Project Name:	Basin	Project #.		Project M	ちっ	Sampler.		Container Type and #	2 - 402								
Chain-of-Custody Record	DTECH		US HWY 64	10HES WN	632.0615	email or Fax#. curetters @ envine technique officient	Level 4 (Full Validation)			Sample Request ID	46392-5 of wher liver	-= 1.4.4.						Relinquished by: U-J-J-Ban- Relinquished by:	
ain-of-(	ENVIROTECH		5796	FARMINGTON,	505.6	axt. cure	ckage: Ird		(Jype)	Time	1235							Tame: 9:/5 Time:	
ů S	Client:		Address:	P.	Phone #:	email or F	QA/OC Package:	D Other	O EDD (lype)	Date	7/15/08							Date: 7/16/08 Date:	,

2 September 2008

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: Analytical Results: Soil Beneath Liner in the Temporary Tank Storage Area Approved in March 2008

.

Dear Mr. Jones;

Attached please find the results for the lab analysis of the soil beneath the liner from the temporary tank storage area approved in March 2008.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

dean  $\mathcal{S}$ 

John Volkerding General Manager2

From: Sent: To: Subject: Jones, Brad A., EMNRD <brad.a.jones@state.nm.us> Monday, June 16, 2008 10:29 AM John Volkerding RE: Soil Sampling Analyses

John,

Based upon the laboratory analytical results provided, OCD hereby approves of your request to place the soils (from above the liner of the temporary tank area) within the facility boundary in a manner that does not promote or facilitate erosional run-off from the facility.

Pursuant to Subsection C of 19.15.9.712 NMAC, "waste listed in Subsection D, Paragraph (1) of Section 19.15.9.712 NMAC. Waste listed in Subsection D, Paragraph (1) of Section 19.15.9.712 NMAC may be disposed of at a solid waste facility without prior written authorization of the division." Plastic pit liners are an identified waste in Subsection D, Paragraph (1) of Section 19.15.9.712 NMAC. The only condition for acceptance is "so long as cleaned well."

If you have any questions regarding this matter, please do not hesitate to contact me.

Brad

Brad A. Jones Environmental Engineer Environmental Bureau NM Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505 E-mail: <u>brad.a.jones@state.nm.us</u> Office: (505) 476-3487 Fax: (505) 476-3462

From: John Volkerding [mailto:bdinc@digii.net] Sent: Friday, June 13, 2008 3:10 PM To: Jones, Brad A., EMNRD Subject: Soil Sampling Analyses

Brad;

Happy Friday the 13<sup>th</sup>! Scary.

Attached are the analytical results for the soil above the liner in the temporary tank storage area. Given the low concentrations, Basin Disposal proposes to place that soil back on our property and dispose of the liner at Waste Management's landfill. We will then conduct a 5 point composite sample of the soil under the liner and analyze for the same constituents.

Thanks, John

John Volkerding. PhD, CPEA General Manager Basin Disposal, Inc. PO Box 100, Aztec, NM 87410 
 Office:
 505-334-3013

 Mobile:
 505-320-2840

 Fax:
 505-333-3898

 Plant:
 505-632-8936

 A good conscience is continual Christmas.
 Benjamin Franklin

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#### John Volkerding

From:John Volkerding <bdinc@digii.net>Sent:Friday, June 13, 2008 3:10 PMTo:'Jones, Brad A., EMNRD'Subject:Soil Sampling AnalysesAttachments:Soil Samples Above Temp Liner 6-13-08.pdf

Brad;

Happy Friday the 13<sup>th</sup>! Scary.

Attached are the analytical results for the soil above the liner in the temporary tank storage area. Given the low concentrations, Basin Disposal proposes to place that soil back on our property and dispose of the liner at Waste Management's landfill. We will then conduct a 5 point composite sample of the soil under the liner and analyze for the same constituents.

Thanks, John

John Volkerding. PhD, CPEA General Manager Basin Disposal, Inc. PO Box 100, Aztec, NM 87410 Office: 505-334-3013 Mobile: 505-320-2840 Fax: 505-333-3898 Plant: 505-632-8936 A good conscience is continual Christmas. Benjamin Franklin

1



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

----

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05-14-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of Custody No:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Extracted:	05-13-08
Preservative:	Cool	Date Analyzed:	05-14-08
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	3.8	0.1
Total Petroleum Hydrocarbons	3.8	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 Tank Storage.

Analyst

hauster Mulaeters Review

**EPA Method 8015 Modified** 

Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

Client:	QA/QC		Project #:		N/A
Sample ID:	05-14-08 QA/	QC	Date Reported:		05-14-08
Laboratory Number:	45407		Date Sampled:		N/A
Sample Matrix:	Methylene Chlo	ride	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		05-14-08
Condition:	N/A		Analysis Request	ted:	TPH
· · · ·	I-Cal Date	I-Cal RF:	C-Cal RF	Vs Enflorence	and the second
Gasoline Range C5 - C10	05-07-07	9.9973E+002	1.0001E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9603E+002	9.9643E+002	0.04%	0 - 15%
Diesei Kange Oto Oto	03-07-07	0.00002.002	3.30432.002	0.04 /0	0 - 10/2
Blank Conc. (mg/L - mg/Kg		Concentration	$M_{\rm eff}$	Detectionism	ŭ
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	Duolicate	% Difference	Alcoel de Reant	
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%	2186.7
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%	
Spike Conc. (mg/Kg)	Sample	Spike Added	Solke Result	No Sacowark	Actor Renta
Gasoline Range C5 - C10	ND	250	250	100%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100%	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 45407 - 45410, 45396, and 45434

Analyst

Boview

TRACE METAL ANALYSIS

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05-15-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of Custody:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Analyzed:	05-13-08
Preservative:	Cool	Date Digested:	05-13-08
Condition:	Cool & Intact	Analysis Needed:	Total Metals
		Det.	
	Concentration	Limit	
Parameter	(mg/Kg)	(mg/Kg)	
Arsenic	0.036	0.001	
Barium	18.2	0.001	
Cadmium	0.002	0.001	
Chromium	0.126	0.001	
Copper	0.325	0.001	
iron	252	0.001	
Lead	0.286	0.001	
Mercury	ND	0.001	
Manganese	15.8	0.001	
Selenium	0.004	0.001	
Silver	ND	0.001	
Zinc	0.923	0.001	

ND - Parameter not detected at the stated detection limit.

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

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

Comments:

Basin Yard Tank Storage.

Analyst

Muster Muchters Review

TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:		QA/QC		Project #:			N/A
Sample ID:		05-13-TM QA/QC		Date Reported:		05-15-08	
Laboratory Number:		45396		Date Samp	led:		N/A
Sample Matrix:		Soil		Date Recei	ved:		N/A
Analysis Requested:		Trace Me	tais	Date Analyz	zed:		0 <b>5-13</b> -08
Condition:		N/A		Date Digest	ted:		05-13-08
Blank & Duplicate Conc. (mg/Kg)	instrument 3lank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	W Diff.	Arceptance Range
Arsenic	ND	ND	0.001	0.036	0.039	6.4%	0% - 30%
Barium	ND	ND	0.001	18.2	18.2	0.0%	0% - 30%
Cadmium	ND	ND	0.001	0.002	0.003	13.6%	0% - 30%
Chromium	ND	ND	0.001	0.126	0.130	3.2%	0% - 30%
Copper	ND	ND	0.001	0.325	0.329	1.3%	0% - 30%
Iron	ND	ND	0.001	252	259	2.8%	0% - 30%
Lead	ND	ND	0.001	0.286	0.294	2.7%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Manganese	ND	ND	0.001	15.8	15.5	2.1%	0% - 30%
Selenium	ND	ND	0.001	0.004	0.003	11.1%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Zinc	ND	ND	0.001	0.923	0.958	3.8%	0% - 30%
Spike	5. J. S. A. S.	Spike	Sample	Spiked	Percent	民主动的	Acceptance
Conc. (mg/Kg)		Added		Sample	Recovery		Range
Arsenic	(	0.250	0.036	0.279	97.6%	ANNAL DI DI MAN	80% - 120%
Barium	(	).500	18.2	18.8	100.4%		80% - 120%
Cadmium	(	0.250	0.002	0.254	101%		80% - 120%
Chromium		0.500	0.126	0.663	106%		80% - 120%
Copper	(	0.500	0.325	0.853	103%		80% - 120%
ron		0.500	252	255	101%		80% - 120%
Lead		0.500	0.286	0.780	99.2%		80% - 120%
Mercury		0.100	ND	0.096	95.9%		80% - 120%
Mangan <del>es</del> e		0.500	15.8	16.4	101%		80% - 120%
Selenium	(	0.100	0.004	0.098	94.5%		80% - 120%
				0.400	4000/		004/ 4004/
Silver	(	0.100	ND	0.100	100%		80% - 120%

ND - Parameter not detected at the stated detection limit.

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

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

Comments:

QA/QC for Samples 45396.

Analyst

Review Callen

#### Water Analysis

Client:	Basin Disposal		Project #:	03058-0004
Sample ID:	Composite		Date Reported:	05-14-08
Laboratory Number:	45396		Date Sampled:	05-09-08
Sample Matrix:	Soil Extract		Date Received:	05-0 <b>9-0</b> 8
Preservative:	Cool		Date Analyzed:	05-13-08
Condition:	Cool & Intact		Chain of Custody:	4316
		Analytical		
Paramet	er	Result		Units
рH		7.82		su
Total Dissolved S	olids @ 180C	1,970		mg/L
Nitrate Nitrogen		0.5		mg/L
Cyanide		0.02		mg/L
Fluoride		0.93		mg/L
Chloride		145		mg/L
Sulfate		1,320		mg/L

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Basin Yard Tank Storage.

Analyst

Mister Walters Review

#### EPA Method 8270 Polynuclear Aromatic Hydrocarbons

	<b>D</b> :	00050 0004
Basin Disposal	Project #:	03058-0004
Composite	Date Reported:	05-27-08
45396	Date Sampled:	05-09-08
4361	Date Received:	05-09-08
Soil	Date Analyzed:	05-21-08
Cool	Date Concentrated:	05-20-08
Cool & Intact	Analysis Requested:	8100
	45396 4361 Soil Cool	CompositeDate Reported:45396Date Sampled:4361Date Received:SoilDate Analyzed:CoolDate Concentrated:

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Naphthalene	ND	0.2	
Acenaphthylene	ND	0.2	
Acenaphthene	ND	0.2	
Fluorene	ND	0.2	
Phenanthrene	ND	0.2	
Anthracene	ND	0.2	
Fluoranthene	ND	0.2	
Pyrene	ND	0.2	
Benzo[a]anthracene	ND	0.2	
Chrysene	ND	0.2	
Benzo(b)fluoranthene	ND	0.2	
Benzo[k]fluoranthene	ND	0.2	
Benzo(a)pyrene	ND	0.2	
Indeno[1,2,3]pyrene	ND	0.2	
Dibenzo[a,h]anthracene	ND	0.2	
Benzo(g,h,i)perylene	ND	0.2	

ND - Parameter not detected at the stated detection limit.

SURROGATE	RECOVERY	Parameter	Percent Recovery
		1-fluoronapthalene	99.7%
D-(		Alatila Osmaniaa hu Osalilaan Caluma OO(110	

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments:

Basin Yard Tank Storage.

Analyst

Christer of Wallers Review



4

### **QUALITY ASSURANCE / QUALITY CONTROL**

### DOCUMENTATION

#### EPA Method 8270 Polynuclear Aromatic Hydrocarbons Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Laboratory Blank	Date Reported:	05-27-08
Laboratory Number:	QA/QC	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-21-08
Condition:	N/A	Analysis Requested:	8100

		Det.
	Concentration	Limit
Parameter	(ug/L)	(ug/L)
Naphthalene	ND	0.2
Acenaphthylene	ND	0.2
Acenaphthene	ND	0.2
Fluorene	ND	0.2
Phenanthrene	ND	0.2
Anthracene	ND	0.2
Fluoranthene	ND	0.2
Pyrene	ND	0.2
Benzo[a]anthracene	ND	0.2
Chrysene	ND	0.2
Benzo(b)fluoranthene	ND	0.2
Benzo[k]fluoranthene	ND	0.2
Benzo(a)pyrene	ND	0.2
Indeno[1,2,3]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.2
Benzo(g,h,i)perylene	ND	0.2

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY:	Parameter	Percent Recovery
	1-fluoronapthalene	99.4%

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments: QA/QC for Sample 45396.

Analyst

Musthe m Walters

#### EPA Method 8270 Polynuclear Aromatic Hydrocarbons Quality Assurance Report

-

Condition:	N/A		
Analysis Requested:	8100	Date Analyzed:	05-21-08
Sample Matrix:	Soil	Date Received:	N/A
Laboratory Number:	45396	Date Sampled:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	05-27-08
Client:	QA/QC	Project #:	QA/QC

		Duplicate		
	Sample	Sample	Det.	Percent
	Result	Result	Limit	Difference
Parameter	(ug/Kg)	(ug/Kg)	(ug/Kg)	
Naphthalene	ND	ND	0.2	0.0%
Acenaphthylene	ND	ND	0.2	0.0%
Acenaphthene	ND	ND	0.2	0.0%
Fluorene	ND	ND	0.2	0.0%
Phenanthrene	ND	ND	0.2	0.0%
Anthracene	ND	ND	0.2	0.0%
Fluoranthene	ND	ND	0.2	0.0%
Pyrene	ND	ND	0.2	0.0%
Benzo[a]anthracene	ND	ND	0.2	0.0%
Chrysene	ND	ND	0.2	0.0%
Benzo(b)fluoranthene	ND	ND	0.2	0.0%
Benzo[k]fluoranthene	ND	ND	0.2	0.0%
Benzo(a)pyrene	ND	ND	0.2	0.0%
Indeno[1,2,3]pyrene	ND	ND	0.2	0.0%
Dibenzo[a,h]anthracene	ND	ND	0.2	0.0%
Benzo(g,h,i)perylene	ND	ND	0.2	0.0%

ND - Parameter not detected at the stated detection limit.

References:

 Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments:

QA/QC for Sample 45396.

Review Waters Analyst

# Envirotech Labs

#### EPA Method 8270 Polynuclear Aromatic Hydrocarbons Quality Assurance Report

Parameter	Sample Result (ug/Kg)	Spike Added (ug/Kg)	Spiked Sample Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Recovery	SW-846 % Rec. Accept. Range
Condition:	N/A					
Analysis Requested:	8100			Date Analyz	ed:	05-21-08
Sample Matrix:	Soil			Date Receiv	ved:	N/A
Laboratory Number:	45396			Date Sample	ed:	N/A
Sample ID:	Matrix Spike			Date Report	ted:	05-27-08
Client:	QA/QC			Project #:		QA/QC

(uy/kg)	(ug/ng)	(uging)	(ug/ng)		Range
ND	50.0	49.9	0.2	99.8%	10-122
ND	50.0	49.8	0.2	99.6%	10-139
ND	50.0	49.9	0.2	99.8%	10-124
ND	50.0	49.9	0.2	99.8%	10-142
ND	50.0	49.9	0.2	99.7%	10-155
ND	50.0	49.9	0.2	99.8%	10-126
ND	50.0	49.9	0.2	99.7%	14-123
ND	50.0	49.8	0.2	99.6%	10-140
ND	50.0	49.9	0.2	99.8%	10-116
ND	50.0	49.8	0.2	99.6%	12-135
ND	50.0	49.8	0.2	99.6%	10-199
ND	50.0	49.9	0.2	99.8%	10-150
ND	50.0	49.8	0.2	99.6%	10-159
ND	50.0	49.8	0.2	99.6%	10-128
ND	50.0	49.8	0.2	99.6%	10-110
ND	50.0	49.9	0.2	99.8%	10-116
	ND ND ND ND ND ND ND ND ND ND ND ND ND	ND         50.0           ND         50.0	ND         50.0         49.9           ND         50.0         49.8           ND         50.0         49.9           ND         50.0         49.8           ND         50.0	ND         50.0         49.9         0.2           ND         50.0         49.8         0.2           ND         50.0         49.9         0.2           ND         50.0         49.8         0.2           ND         50.0         49.8<	ND         50.0         49.9         0.2         99.8%           ND         50.0         49.8         0.2         99.6%           ND         50.0         49.9         0.2         99.8%           ND         50.0         49.9         0.2         99.7%           ND         50.0         49.9         0.2         99.7%           ND         50.0         49.9         0.2         99.7%           ND         50.0         49.8         0.2         99.6%           ND         50.0         49.8         0.2         99.6%

ND - Parameter not detected at the stated detection limit.

References:

Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments:

QA/QC for Sample 45396.

Analyst

Mister Maelen Review

#### Hall Environmental Analysis Laboratory, Inc.

Date: 22-May-08

CLIENT:	Envirotech			Client	Sample ID:	45396 - Co	mposite			
Lab Order:	0805250			Coll	ection Date:	5/9/2008 8:30:00 AM				
Project:	Basin Disposal			Dat	e Received:	5/16/2008				
Lab ID:	0805250-01			24	Matrix:					
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed			
EPA METHOD	8310: PAHS	ويتبارك والمتراط المتريب والمتقدم					Analyst: DM			
Naphthalene		ND	1.2	ſ	ng/Kg	5	5/21/2008 4:27:11 PM			
1-Methyinaphtha	alene	ND	1.2	r	ng/Kg	5	5/21/2008 4:27:11 PM			
2-Methylnaphtha	alene	ND	1.2	r	ng/Kg	5	5/21/2008 4:27:11 PM			
Acenaphthylene	•	ND	1.2	r	ng/Kg	5	5/21/2008 4:27:11 PM			
Acenaphthane		ND	1.2		ng/Kg	5	5/21/2008 4:27:11 PM			
Fluorene		ND	0.15		ng/Kg	6	5/21/2008 4:27:11 PM			
Phònanthrene		ND	0.075	r	ng/Kg	5	5/21/2008 4:27:11 PM			
Anthracene		ND	0.075		ng/Kg	5	5/21/2008 4:27:11 PM			
Fluoranthene		ND	0.10		ng/Kg	5	5/21/2008 4:27:11 PM			
Pyrene		ND	0.12		ng/Kg	5	5/21/2008 4:27:11 PM			
Benz(a)anthrace	ne	ND	0.020		ng/Kg	5	5/21/2008 4:27:11 PM			
Chrysene		ND	0.065		ng/Kg	5	5/21/2008 4:27:11 PM			
Benzo(b)fluorant	thene	ND	0.020		ng/Kg	5	5/21/2008 4:27:11 PM			
Benzo(k)fluorant		ND	0.020		ng/Kg	5	5/21/2008 4:27:11 PM			
Benzo(a)pyrene		ND	0.020		ng/Kg	5	5/21/2008 4:27:11 PM			
Dibenz(a,h)anth		ND	0.020		ng/Kg	5	6/21/2008 4:27:11 PM			
Benzo(g,h,i)pery		ND	0.020		ng/Kg	5	5/21/2008 4:27:11 PM			
Indeno(1,2,3-cd)		ND	0.020		ng/Kg	5	5/21/2008 4:27:11 PM			
Surr: Benzo(e		90.0	40.7-93.1		4REC	5	5/21/2008 4:27:11 PM			
	3260B: VOLATILES						Analyst: BDI			
Benzene		ND	0.050	n	ng/Kg	1	5/20/2008 7:40:20 PM			
Toluene		ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
Ethylbenzene		ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
Methyl tert-butyl	ether (MT8E)	ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
1,2,4-Trimethylb	· ·	ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
1,3,5-Trimethylb		ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
1.2-Dichloroetha		ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
1,2-Dibromoetha	• •	ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
Naphthalene	·/	ND	0.10		ng/Kg	1	5/20/2008 7:40:20 PM			
1-Methylnaphtha	llene	ND	0.20		ng/Kg	1	5/20/2008 7:40:20 PM			
2-Methylnaphtha	•	ND	0.20		ng/Kg	1	5/20/2008 7:40:20 PM			
Acetone		ND	0.75		ng/Kg	1	5/20/2008 7:40:20 PM			
Bromobenzene		ND	0.050	•	ng/Kg	1	5/20/2008 7:40:20 PM			
Bromodichlorom	sthane	ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
Bromoform		ND	0.050		ng/Kg	1	5/20/2008 7:40:20 PM			
Bromomethane		ND	0.10		ng/Kg	1	5/20/2008 7:40:20 PM			
2-Butanone		ND	0.60		γg/Kg	1	5/20/2008 7:40:20 PM			
Carbon disutfide		ND	0.50		ng/Kg	ť	5/20/2008 7:40:20 PM			
Carbon tetrachio		ND	0.10		ng/Kg	1	5/20/2008 7:40:20 PM			
Chlorobenzene		ND	0.050		ιg/Kg	1	5/20/2008 7:40:20 PM			
Chloroethane		ND	0.10		ng/Kg	1	5/20/2008 7:40:20 PM			

Qualifiers: ٠ Value exceeds Maximum Contaminant Level

> E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level RL Reporting Limit

Page 1 of 3

Hall Envi	ronmental Analy	sis Labora	Laboratory, Inc. Date: 22-May-08								
CLIENT:	Envirotech	Client Sample ID: 45396 - Composite									
Lab Order:	0805250		Collection Date: 5/9/2008 8:30:00 AM								
Project:	Basin Disposal		Date Received: 5/16/2008								
Lab ID:	0805250-01				Matri	ix: SOIL					
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed				
EPA METHOD	8260B: VOLATILES						Analyst: BDH				
Chloroform		ND	0.050		mg/Kg	1	5/20/2008 7:40:20 PM				
Chloromethane	)	ND	0.050		mg/Kg	1	5/20/2008 7:40:20 PM				
2.Chtomtoluen		ND	0.050		mo/Ka	1	5/20/2008 7·40·20 PM				

#### Hall Environmental Analysis Laboratory Inc.

mg/Kg ND 0.050 4-Chlorotoluene mg/Kg 5/20/2008 7:40:20 PM 1 cia-1,2-DCE ND 0.050 5/20/2008 7:40:20 PM mg/Kg 1 cis-1,3-Dichloropropene ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM 1,2-Dibromo-3-chloropropane ND 0.10 mg/Kg 1 5/20/2008 7:40:20 PM Dibromochloromethane ND 0.050 5/20/2008 7:40:20 PM mg/Kg 1 Dibromomethane ND 0.10 mg/Kg 1 5/20/2008 7:40:20 PM 1,2-Dichlorobenzene ND 0.050 mg/Kg 5/20/2008 7:40:20 PM 1 1.3-Dichlorobenzene ND 0.050 5/20/2008 7:40:20 PM mg/Kg 1 ND 0.050 5/20/2008 7:40:20 PM 1.4-Dichlorobenzene mg/Kg 1 Dichlorodifluoromethane NO 0.050 5/20/2008 7:40:20 PM mg/Kg 1 ND 1,1-Dichloroethane 0.10 mg/Kg 1 5/20/2008 7:40:20 PM ND 1,1-Dichloroethene 0.050 mg/Kg 1 5/20/2008 7:40:20 PM 0.050 1,2-Dichloropropane ND mg/Kg 1 5/20/2008 7:40:20 PM ND 0.050 1,3-Dichloropropane mg/Kg 1 5/20/2008 7:40:20 PM ND 2,2-Dichloropropane 0,10 mg/Kg 1 5/20/2008 7:40:20 PM 1,1-Dichloropropene ND 0.10 mg/Kg 5/20/2008 7:40:20 PM 1 ND 0.10 mg/Kg Hexachlorobutadiene 1 5/20/2008 7:40:20 PM ND 0.50 5/20/2008 7:40:20 PM 2-Hexanone mg/Kg 1 ND 5/20/2008 7:40:20 PM 0.050 Isopropylbenzene mg/Kg 1 ND 0.050 4-isopropyltoluene mg/Kg 1 5/20/2008 7:40:20 PM ND 4-Methyl-2-pentanone 0.50 mg/Kg 1 5/20/2008 7:40:20 PM Methylene chloride 0.22 0.15 mg/Kg 5/20/2008 7:40:20 PM 1 n-Bulyibenzene ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM n-Propyibenzene ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM sec-Butylbenzene ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM ND 0.050 Styrene mg/Kg 1 5/20/2008 7:40:20 PM tert-Butylbenzene ND 0.050 mg/Kg 5/20/2008 7:40:20 PM 1 1,1,1,2-Tetrachloroethane ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM 1,1,2,2-Tetrachloroethane ND 0.050 mg/Kg 5/20/2008 7:40:20 PM 1 Tetrachioroethene (PCE) ND 0.050 mg/Kg 5/20/2008 7:40:20 PM 1 trans-1,2-DCE ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM ND 0.050 trans-1,3-Dichloropropene 5/20/2008 7:40:20 PM mg/Kg 1 1,2,3-Trichtorobenzene ND 0.10 5/20/2008 7:40:20 PM mg/Kg 1 ND 0.050 1,2,4-Trichlorobenzene mg/Kg 5/20/2008 7:40:20 PM 1 1,1,1-Trichloroethane ND 0.060 mg/Kg 5/20/2008 7:40:20 PM 1 1,1,2-Trichloroethane ND 0.050 mg/Kg 5/20/2008 7:40:20 PM 1 Trichloroethene (TCE) ND 0.050 mg/Kg 1 5/20/2008 7:40:20 PM 0.050 Trichlorofluoromethane ND mg/Kg 1 5/20/2008 7:40:20 PM 1,2,3-Trichloropropane ND 0.10 mg/Kg 1 5/20/2008 7:40:20 PM

٠ **Oualifiers:** Value exceeds Maximum Contaminant Level

> Value above quantitation range E

Analyte detected below quantitation limits 1

Not Detected at the Reporting Limit ND

Spike recovery outside accepted recovery limits S

В Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded H

MCL Maximum Contaminant Level

RL Reporting Limit

Page 2 of 3

CLIENT:	Envirotech		Client Sample ID: 45396 - Cor							
Lab Order:	0805250			Co	llection Date:	: 5/9/2008 8:30:00 AM				
Project:	Basin Disposal	Date Received: 5/16/2008								
Lab ID:	0805250-01				Matrix:	SOIL				
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed			
EPA METHOD	8260B: VOLATILES				• • • • • • • • • • • • • • • • • • •		Analyst: BDH			
Vinyl chloride		ND	0.050		mg/Kg	1	5/20/2008 7:40:20 PM			
Xvienes, Total		ND	0.10		mg/Kg	1	5/20/2008 7:40:20 PM			
Surr: 1,2-Dic	hloroethane-d4	95.8	80.2-109		%REC	1	5/20/2008 7:40:20 PM			
Surr: 4-Brom	ofiuorobenzene	94.3	86.8-117		%REC	1	5/20/2008 7:40:20 PM			
Surr: Dibrom	ofluoromethane	141	67.4-173		%REC	1	5/20/2008 7:40:20 PM			
Surr: Toluene	8b-e	87.6	87.9-106	S	%REC	1	6/20/2008 7:40:20 PM			

#### Hall Environmental Analysis Laboratory, Inc.

Qualifiers:

ч.

7

- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

Date: 22-May-08

- MCL Maximum Contaminant Level
- RL Reporting Limit

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<sup>\*</sup> Value exceeds Maximum Contaminant Level

Page I

0110110	Snvirotech						13	11	<b>••••</b>	0005050
Project: l	Basin Disposal			•			N	ork e	Order:	0805250
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit Q	ual
Method: EPA Meth	od 8310: PAHs									
Sample ID: MB-169	0	MBLK			Batch	ID: 16990	Analysis Da	i <b>te:</b>	5/21/2008	i 12:27:18 Pl
Naphthalene	ND	mg/Kg	0.25							
1-Methyinaphthalene	ND	mg/Kg	0.25							
2-Methyinaphthalene	ND	mg/Kg	0.25							
Acenaphthylene	ND	mg/Kg	0.25							
Acenaphihene	ND	mg/Kg	0.25							
Fluorene	ND	mg/Kg	0.030							
Phenanthrene	ND	m <b>g/Kg</b>	0.015							
Anthracene	ND	mg/Kg	0.015							
Fluoranthene	ND	mg/Kg	0.020							
Pyrane	ND	mg/Kg	0.025							
Benz(a)anthracene	ND	mg/Kg	0.0040							
Chrysene	NÐ	mg/Kg	0.011							
Benzo(b)fluoranthene	ND	mg/Kg	0.0040							
Benzo(k)fluoranthene	ND	mg/Kg	0.0040							
Benzo(a)pyrene	ND	mg/Kg	0.0040							
Dibenz(a,h)anthracene	ND	mg/Kg	0.0040							
Benzo(g,h,i)perylene	ND	mg/Kg	0.0040							
Indeno(1,2,3-cd)pyren	⇒ ND	mg/Kg	0.0040							
Sample ID: LC9-169		LCS			Balch	ID: 15990	Analysis Da	te:	5/21/200	8 1:15:18 PN
Naphihalene	0.8165	mg/Kg	0.25	81.6	30.1	90.4	-			
1-Methyinaphthalene	0.8232	mg/Kg	0.25	82.3	31.1	88.5				
2-Methylnaphthalene	0.8155	mg/Kg	0.25	81.6	32.2	89				
Acenaphthylene	0.7297	mg/Kg	0.25	73.0	29.5	94.2				
Acenaphthene	0.8172	mg/Kg	0.25	81.7	35.6	89.7				
Fluorene	0.07650	mg/Kg	0.030	76.5	36.9	90.7				
Phenanthrene	0.04375	mg/Kg	0.015	87.0	37.2	95.3				
Anthracene	0.03800	mg/Kg	0.015	75.5	37.4	95.4				
Fluoranthene	0.07825	mg/Kg	0.020	78.0	30.4	97.8				
Pvrene	0.08800	mg/Kg	0.025	88.0	33.3	100				
	0.008250	mg/Kg	0.025	88.0 82.5		102				
Benz(a)anthracene	0.000250	mg/Kg	0.0040	81.5	38.9 24.2					
Chrysene Banzo(h)#upronthese	0.01000	mg/Kg mg/Kg	0.0040	80.0	24.2 35.5	100 102				
Benzo(b)fluoranthene	0.004750		0.0040	76.0	30.5 30.4	102				
Benzo(k)fluoranthene										
Benzo(a)pyrene Dibenz(a,b)anthracene	0.005000 0.01025	mg/Kg mg/Kg	0.0040 0.0040	79.6 82.0	29.6 29.3	112 108				
Benzo(g,h,i)perylene	0.01050	mg/Kg	0.0040	84.0	29.5	116				
ndeno(1,2,3-cd)pyreni		mg/Kg	0.0040	80.8	18.5	112				
Sample ID: LCSD-16		LCSD	0.0040	00.0	Batch I		Analysia Da	te:	5/21/200	8 2:03:16 Ph
Naphthalene	0.6345	mg/Kg	0.25	63.4	30.1	90.4	25.1	26.2		
1-Methylnaphthalene	0.6575	mg/Kg	0.25	65.8	31.1	88.5	20.1	23.5		
2-Methyinaphthalene	0.6460	mg/Kg	0.25	64.6	32.2	89 89	23.2	22.7		,
Acenaphthylene	0.5864	mg/Kg	0.25	58.6	29.5	94.2	23.2	18.8		
Acenaphthene	0.6572	mg/Kg	0.25	56.6 65.7	29.5 35.6	94.2 89.7	21.0	19		
<sup>s</sup> luorene	0.0672	mg/Kg	0.28	61.8	36.9	89.7 90,7	21.7	21.4		•

### **QA/QC SUMMARY REPORT**

Qualifiers:

l

B Value above quantitation range

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Analyte detected below quantitation limits

S Spike recovery outside accepted recovery limits

Client: Project:	Envirotech Basin Disposal								Work Or	der: 0805250
Analyte		Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLin	nit Qual
	Method 8310: PAHs	<u></u>								
Sample ID: LC!	SD-16990		LCSD			Batch	ID: 15990	Analysis I	Date: 5/	21/2008 2:03:16 PM
Phenanthrene		0.03650	mg/Kg	0.015	70.6	37.2	95.3	20.8	31.7	
Anthracene		0.03100	mg/Kg	0.015	61.6	37.4	95.4	20.3	18.3	R
Fluoranthene		0.06525	mg/Kg	0.020	65.1	30.4	97.8	18.1	23.8	
Pyrene		0.07100	mg/Kg	0.025	71.0	33.3	100	21.4	18.9	R
Benz(a)anthracer	1 <b>e</b> .	0.006750	mg/Kg	0.0040	67.5	38.9	102	20.0	40	
Chrysene		0.03350	mg/Kg	0.011	66.6	24.2	100	20.1	33	
Benzo(b)fluoranti	hene	0.008250	mg/Kg	0.0040	66.0	35.5	102	19.2	38.2	
Benzo(k)fluoranth	nene	0.004000	mg/Kg	0.0040	64.0	30.4	101	17.1	28.2	
Benzo(a)pyrene		0.004000	mg/Kg	0.0040	63.7	29.6	112	<b>22.2</b>	35.5	
Dibenz(a,h)anthr	acene	0.008600	mg/Kg	0.0040	68.0	29.3	108	18.7	<b>25</b> .1	
Benzo(g,h,i)peryl	ene	0.008500	mg/Kg	0.0040	68.0	21.3	116	<b>21.1</b>	20.5	R
Indeno(1,2,3-cd)	yrene	0.01620	mg/Kg	0.0040	64.5	18.5	112	22.3	23.1	

#### Qualifiers:

1

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 2

••••	virotech									
Project: Ba	sin Disposal							Work	Order	0805250
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPD	Limit	Qual
Method: EPA Method	8260B: VOLATILES				•					
Sample ID: 0805250-0	1a msd	MSD			Batch	D: 15983	Analysis [	Date:	5/20/2	2008 8:49:58 PI
Зепzеле	1.193	mg/Kg	0.050	119	87.8	132	1.18	20		
Toiuene	0.9945	mg/Kg	0.050	99.4	64.9	140	1.96	20		
Chiorobenzene	1.194	mg/Kg	0.050	119	77.6	128	1.74	20		
1.1-Dichloroethene	1.145	mg/Kg	0.050	114	64.6	163	8.74	20		
Trichloroethene (TCE)	0.6765	mg/Kg	0.050	67.7	47	115	5.36	20		
Sample ID: mb-15983		MBLK			Batch	D: 15983	Analysis E	ate:	5/21/2	008 1:12:37 PM
Benzene	ND	mg/Kg	0.050							
Foluene	ND	mg/Kg	0.050							
Ethylbenzene	ND	mg/Kg	0.050							
Wethyl tert-butyl ether (M		mg/Kg	0.050							
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050							
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050							
.2-Dichloroethane (EDC		mg/Kg	0.050							
.2-Dibromoethane (EDE		mg/Kg	0.050							
Vaphthalene	ND	mg/Kg	0.10							
-Methylnaphthalene	ND	mg/Kg	0.20							
-Methylnaphthalene	ND	mg/Kg	0.20							
Acetone	ND	mg/Kg	0.75							
Bromobenzene	ND	mg/Kg	0.050							
Bromodichloromethane	ND	mg/Kg	0.050							
Bromoform	ND	mg/Kg	0.050							
Bromomethane	ND	mg/Kg	0.10							
Butanone	ND	mg/Kg	0.50							
Carbon disulfide	ND	mg/Kg	0.50							
Carbon tetrachioride	ND	mg/Kg	0.30							
Chlorobenzene	ND	mg/Kg	0.050							
Chloroethane	ND	mg/Kg	0.10							
Chloroform	ND	mg/Kg	0.050							
chioromethane	ND	mg/Kg	0.050							
-Chiorololuena	ND	mg/Kg	0.050							
-Chlorotoiuene	ND	mg/Kg	0.050							
is-1,2-DCE	ND	mg/Kg	0.050							
is-1,3-Dichloropropene	ND	mg/Kg	0.050							
2-Dibromo-3-chioroprop										
ibromochloromethane	ND	mg/Kg mg/Kg	0.10 0.050							
bromomethane	ND	mg/Kg	0.10							
2-Dichlorobenzene	ND	mg/Kg	0.050							
3-Dichlorobenzene	ND	mg/Kg	0.050							
4-Dichlorobenzene	ND	mg/Kg	0.050							
ichlorodifluoromethane	ND	mg/Kg	0.050							
1-Dichloroethane	ND	mg/Kg	0.10							
1-Dichloroethene	ND	mg/Kg	0.060							
2-Dichloropropane	ND	mg/Kg	0.050							
3-Dichloropropane	ND	mg/Kg	0.000							

Qualifiers:

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

 ND
 Not Detected at the Reporting Limit

 S
 Spike recovery outside accepted recovery limits

R RPD outside accepted recovery limits

Page 1

Client: Enviro Project: Basin	otech Disposal						Worl	<b>Order:</b> 0805250
Analyte	Result	Units	PQL	%Rec	LowLimit	l HighLimit	%RPD RF	DLimit Qual
Method: EPA Method 82	60B: VOLATILES							
Sample ID: mb-15983		MBLK			Batch	ID: <b>15983</b>	Analysis Date:	5/21/2008 1:12:37 PM
2,2-Dichloropropane	ND	mg/Kg	0.10					
1,1-Dichtoropropene	ND'	mg/Kg	0.10					
Hexachlorobutadiene	ND	mg/Kg	0.10					
2-Hexanone	ND	mg/Kg	0.50					
sopropylbenzene	ND	mg/Kg	0.050					
4-Isopropyliciuene	ND	mg/Kg	0.050					
4-Methyl-2-pentanone	ND	mg/Kg	0.50					
Methylens chloride	ND	mg/Kg	0.15					
n-Butylbenzene	ND	mg/Kg	0.050					
n-Propylbenzene	ND	mg/Kg	0.050					
sec-Bulylbenzene	ND	mg/Kg	0.050					
Styrene	ND	mg/Kg	0,050					
ert-Butylbenzene	ND	mg/Kg	0.050					
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050					
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050					
Tetrachloroethene (PCE)	ND	mg/Kg	0.050					
rans-1,2-DCE	ND	mg/Kg	0.050					
irans-1,3-Dichloropropene	ND	mg/Kg	0.050					
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10					
1.2.4-Trichlorobenzene	ND	mg/Kg	0.050					
1,1,1-Trichloroethane	ND	mg/Kg	0.050					
1,1,2-Trichloroethane	ND	mg/Kg	0.050					
Trichloroethene (TCE)	ND	mg/Kg	0.050					
Frichlorofluoromethane	ND		0.050					
		mg/Kg						
1,2,3-Trichloropropane	ND ND	mg/Kg	0.10					
/inyl chloride	ND	mg/Kg	0.050					
Xylenes, Total	ND	mg/Kg LCS	0.10		Batak			6/00/0000 7-06-98 DM
Sample ID: Ics-16983					Batch	-	Analysis Date:	6/20/2008 7:05:36 PM
Benzene	1.193	mg/Kg	0.050	119	87.8	132		
Foluene	0.9658	mg/Kg	0.050	96.6	64.9	140		
Chiorobenzene	1.145	mg/Kg	0.050	114	77.6	128		
,1-Dichloroethene	1.236	mg/Kg	0.050	124	64,6	163		
Frichloroethene (TCE)	0.6749	mg/Kg	0.050	67.5	47	116		
Sample ID: 0805250-01a n	18	MS			Batch	ID: 16983	Analysis Date:	5/20/2008 8:15:21 PM
Benzena	1.207	mg/Kg	0.050	121	87.8	132		
Foluene	1.014	mg/Kg	0.050	101	64.9	140		
Chlorobenzene	1.173	mg/Kg	0.050	117	77.6	128		
1,1-Dichloroethene	1.249	mg/Kg	0.050	125	64.6	163		
Trichloroethene (TCE)	0.7138	mg/Kg	0.050	71.4	47	115		

#### Qualifiers:

- E Value above quantitation rangeJ Analyte detected below quantitation limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

- S Spike recovery outside accepted recovery limits
  - 7

### Hall Environmental Analysis Laboratory, Inc.

	Sample	Rec	eipt Cl	n <b>ecklist</b>			
Client Name ENVIROTECH				Date Receive	ed:	5/16/2008	
Work Order Number 0805250				Received by	y: AT	.7	
Checklist completed by:	4C		<u>رج</u> Date	Sample ID	labels checked by:	Inities	
Malrix:	Carrier name	Grev	hound				
Shipping container/cooler in good condition?		Yes		No 🗖	Not Present		
Custody seals intact on shipping container/cod	bler?	Yes		No 🗔	Not Present 🛛	Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗔	N/A 🗹		
Chain of custody present?		Yes		No 🗖			
Chain of custody signed when relinquished an	d received?	Yes		No 🗖			
Chain of custody agrees with sample labels?		Yes		No 🗆			
Samples in proper container/bottle?		Yes		No 🗖			
Sample containers Intact?		Yes		No 🗖			
Sufficient sample volume for indicated test?		Yes		No 🗖			
All samples received within holding time?		Yes		No 🗔			
Water - VOA viais have zero headspace?	No VOA viais sub	mitted		Yes 🗖	No 🗔		
Water - Preservation labels on bottle and cap	match?	Yes			N/A 🗹		
Water - pH acceptable upon receipt?		Yes		No 🗔	N/A 🗹		
Container/Temp Blank temperature?			4°	<6" C Acceptal	ble		
COMMENTS:				lf given sufficier	it time to cool.		
Client contacted	Date contacted:			Pen	son contacted		
Contacted by:	Regarding:						
Comments:	· · · · · · · · · · · · · · · · · · ·						
			<u></u>				
•	<u>، روی می می وانوا با اومان ہے۔ ورو اللہ اور اور اللہ میں میں اور اللہ میں میں اور اللہ میں میں اللہ میں میں ال</u>				••••••••••••••••••••••••••••••••••••••		
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Tum-Around Time:	X Standard	Project Name	7.84	Project #:	0	Project Mans	CHE ISTIME	Sampler:	On los	Sattipic: water	Container Type and #	1-402											2	
Chain-of-Custody Record			to Mit S	ISHEN HN	12	email or Farth curaters Cenvingtet- Inc. 2011 Project Manager	Level 4 (Full Validation)				Sample Request ID	HS374- COMPOSITE	-					-					Relinquished by: Kenddell Agebr	7
ain-of-C	Client:		Address:	NOT-SUIVE	505 L	tions	ickage: ard		Type)		Time 05730												Time: to:45	
S	Qient: Client:		Address:	Tool I	Phone #	email or F	QA/QC Package:		C EDD (Type)		Date	-1											S/15/0 x	Date:

#### EPA METHOD 8270 TCLP PHENOLS

2.1

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05-27-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of Custody:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Extracted:	05-14-08
Preservative:	Cool	Date Analyzed:	05-20-08
Condition:	Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Llmit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.020	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Rec	coveries:	Parameter	Percent Recovery
		2-Fluorophenol	99.0%
		2,4,6-Tribromophenol	99.0%
References:	Method 131	1, Toxicity Characteristic Leaching Procedure T	est Methods for Evaluating Solid
	Waste, SW-	846, USEPA, July 1992.	•
	Method 351	), Separatory Funnel Liquid-Liquid Extraction, 1	Fest Methods for Evaluating Solid
	Waste, SW-	846, USEPA, July 1992.	

Method 8040, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, July 1, 1992.

Comments: Basin Yard Tank Storage.

Analyst

Muster m Walter Review

EPA METHOD 8270 TCLP PHENOLS Quality Assurance Report

Client:	QA/QC			Project #:				
Sample ID:	05-20-TCA QA	/QC		Date Reporte	d:	05-27 <b>-</b> 08		
Laboratory Number:	45396			Date Sample	d:	N/A		
Sample Matrix:	2-Propanol			Date Receive	d:	N/A		
Preservative:	N/A			Date Analyzed:				
Condition:	N/A			Analysis Req	uested:	TCLP		
Blanks & Duplicate	instrument	Method	Detection	Sample	Duplicate	Percent		
Conc (mg/L)	Blank	Blank	Limit			Diff.		
o-Cresol	ND	ND	0.020	ND	ND	0.0%		
p,m-Cresol	ND	ND	0.020	0.020 ND		0.0%		
2,4,6-Trichlorophenol	ND	ND	0.020	ND	ND	0.0%		
2,4,5-Trichlorophenol	ND	ND	0.020	ND	ND	0.0%		
Pentachlorophenol	NÐ	ND	0.020	ND	ND	0.0%		

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8041, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Comments:

QA/QC for Sample 45396.

Analyst

<u>Salter</u> Review

CLIENT:	Envirotech			Clier	t Sample ID:	45396-Co	mposite .
Lab Order:	0805177			Co	lection Date:	5/9/2008 9	0:00:00 AM
Project:	Basin Disposal			5/13/2008			
Lab ID:	0805177-01			Matrix:		SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8082: PCB'S	· · · · · · · · · · · · · · · · · · ·					Analyst: JMP
Aroclor 1016		ND	0.020		mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1221		ND	0.020		mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1232		ND	0.020		mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1242		ND	0.020		mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1248		ND	0.020		mg/Kg	1	5/21/2008 4:30;24 PM
Aroclor 1254		ND	0.020		mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1280		ND	0.020		mg/Kg	1	5/21/2008 4:30:24 PM
Surr: Decach	lorobiphenyi	42.4	15.8-133		%REC	1	5/21/2008 4:30:24 PM

Hall Environmental	Analysis Laboratory, Inc	
	Analysis Marvinet i y int	-

Date: 09-Jun-08

Qualiflers:	<ul> <li>Value exceeds Maximum Contaminant Level</li> </ul>		B	B Analyte detected in the associated Method Blank				
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exc	eeded			
	1	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level				
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit	D			
	S	Spike recovery outside accepted recovery limits			Page 1 of 1			



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602 Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energytab.com • www.energytab.com

#### LABORATORY ANALYTICAL REPORT

Client:	Hall Environmental	Report Date:	06/08/08
Project:	0805177	Collection Date:	05/09/08 09:00
Lab ID:	C08050691-001	DateReceived:	05/15/08
<b>Client Sample ID</b>	: 45396-Composite	Matrix:	Soll

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL							
Uranium	1.6	mg/kg-dry		0.5		SW6020	05/31/08 04:26 / ts
RADIONUCLIDES - TOTAL							
Radium 226	1.6	pCi/g-dry				E903.0	06/04/08 11:09 / trs
Radium 226 precision (±)	0.2	pCl/g-dry				E903.0	06/04/08 11:09 / trs
Radium 226 MDC	0.1	pCi/g-dry				E903.0	06/04/08 11:09 / trs
Radium 228	0.4	pCl/g-dry	U			RA-05	05/30/08 09:57 / plj
Radium 228 precision (±)	0.4	pCl/g-dry				RA-05	05/30/08 09:67 / plj
Radium 228 MDC	0.6	pCl/g-dry				RA-05	05/30/08 09:57 / pij

Report	RL - Analyte reporting limit.
Definitions:	QCL - Quality control limit.
	MDC - Minimum detectable concentration

MCL - Maximum contaminant level. ND - Not detected at the reporting limit. U - Not detected at minimum detectable concentration



Cilent: Hall Environmental

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602 Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

#### **QA/QC Summary Report**

Project: 0805177						Work	Order	: C080506	91
Analyte	Result	Unite	RL.	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0						9. g. t		Bat	ch: 18648
Sample ID: LCS-18648	Laboratory Co	ontrol Sample			Run: BERT	HOLD 770_0805	27B	06/04	/08 11:08
Radium 226	0.014	PCN.		97	70	130			
Sample ID: MB-18648	Method Blank	:			Run: BERT	HOLD 770_0805	278	06/04	/08 11:09
Radium 226	-0.0010	pCI/L							U
Sample ID: C08050691-001BMS	Sample Matrb	x Spike			Run: BERT	HOLD 770_0805	27B	06/04	/08 11:09
Radium 226		pCi/g-dry		67	70	130			S
<ul> <li>Spike response is outside of the acceptant matrix related. The batch is approved.</li> </ul>	ce range for this an	alysis. Since the LCS	and the R	PD for the	MS MSD pair	are acceptable, the	respons	e is considere	d to be
Sample ID: C08050691-001BMSD	Sample Matrix	x Spike Duplicate			Run: BERT	HOLD 770_0805	278	08/04	/08 11:09
Radium 226	3.4	pCI/L		48	70	130	18	24.3	S
<ul> <li>Splike response is outside of the acceptant matrix related. The batch is approved.</li> </ul>	ce range fo <i>r</i> this an	alysis. Since the LCS	and the R	PD for the	MS MSD pair	are acceptable, the	respond	e is considera	d to be
Method: RA-05								Bat	ch: 18648
Sample ID: LCS-18648	Laboratory Co	ontrol Sample			Run: TENN	ELEC-3_080527/	4	05/30	/08 09:57
Radium 228	0.019	pCi/g-dry		113	70	130			
Sample ID: MB-18646	Method Blank				Run: TENN	ELEC-3_080527/	4	05/31	/08 09:57
Radium 228	0.0002	pCi/g-dry							U
Sample ID: C08050691-001BMS	Sample Matrb	k Spike			Run: TENN	ELEC-3_080627/	۹.	05/30	08 09:57
Radium 228	•	pCi/g-dry		102	70	130			
Sample ID: C08050691-001BMSD	Sample Matrix	c Spike Duplicate			Run: TENN	ELEC-3_080527/	۹.	05/30	/08 09:57
Redium 228	4.6	pCl/g-dry		88	70	130	14	31.1	
Method: SW6020								Bat	ch: 18680
Sample ID: MB-18660	Method Blank				Run: ICPM	S2-C_080530A		05/31	/08 04:18
Uranium	0.0002	mg/kg-dry	1E-08			_			
Sample ID: LCS3-18660	Laboratory Co	ontrol Sample			Run: ICPM	S2-C_080530A		05/31	/08 04:22
Uranium	•	mg/kg-dry	0.50	119	80	120			
Sample ID: C08050805-014AMS3	Sample Matrix	< Spike			Run: ICPM	52-C_080530A		05/31	/08 05:12
Uranium	702	mg/kg-dry	0.50		75	125			A
Sample ID: C08050805-014AMSD3	Sample Matrix	Spike Duplicate			Run: ICPM	52-C_080530A		05/31	/08 05:18
Uranium	600	mg/kg-dry	0.50		75	125	16	20	A

#### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated. S - Spike recovery outside of advisory limits.

Report Date: 06/08/08

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Client: Project:	Envirotech Basin Disposal						Wor	k Order: 0805177
Analyte	Result	Units	PQL	%Rec	LowLimit H	lighLimit	%RPD R	PDLimit Qual
	thod 8082: PCB's							
Sample ID: MB-15	982	MBLK			Batch ID:	15982	Analysis Date:	5/21/2008 11:34:50 AM
Aroclor 1016	ND	mg/Kg	0.020					
Aroclor 1221	ND	mg/Kg	0.020					
Aroclor 1232	ND	mg/Kg	0.020					
Aroclor 1242	ND	mg/Kg	0.020					
Aroclar 1248	ND	mg/Kg	0.020					
Aroolor 1254	ND	mg/Kg	0.020					
Aroclor 1260	ND	mg/Kg	0.020					
Sample ID: LCS-1	5982	LCS			Batch ID:	15982	Analysis Date:	5/21/2008 12:25:38 PM
Aroclor 1260	0.05340	) mg/Kg	0.020	42.7	23.7	105		
Sample ID: LCSD-	16982	LCSD			Batch (D:	15982	Analysis Date:	5/21/2008 1:14:12 PM
Aroclor 1260	0.05590	) mg/Kg	0.020	44.7	23.7	105	4.57	20

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 1

#### Hall Environmental Analysis Laboratory, Inc.

Sample	e Rece	eipt Ch	ecklist				
Client Name ENVIROTECH			Date Received	d:		5/13/2008	
Work Order Number 0805177		r .	Received by:	ARS		1 <i>A</i>	
11.42	e	- 0	Sample ID la	bels checked i	by:	<u> </u>	
Checklist completed by:	<u> </u>	2/13/ Date /	0		I	nilais"	
	-						
Matrix: Carrier name	Grey	hound					
Shipping container/cooler in good condition?	Yes		No 🗀	Not Present			
Custody seals intact on shipping container/cooler?	Yes	$\checkmark$	No 🗀	Not Present		Not Shipped	
Custody seels intact on sample bottles?	Yes		No 🗀	N/A			
Chain of custody present?	Yes		No 🗔				
Chain of custody signed when relinquished and received?	Yes		No 🗀				
Chain of custody agrees with sample labels?	Yes		No 🗔				
Samples in proper container/bottle?	Yes		No 🗔				
Sample containers intact?	Yes		No 🗔				
Sufficient sample volume for indicated test?	Yes		No 🗔				
All samples, received within holding time?	Yes		No 🗔				
Water - VOA vials have zero headspace? No VOA vials sub	mitted	V	Yes 🗖	No 🗔			
Water - Preservation labels on bottle and cap match?	Yes		No 🗀	N/A 🗹			
Water - pH acceptable upon receipt?	Yes		No 🗔	N/A 🗹			
Container/Temp Blank temperature?		6°	<6° C Acceptab				
COMMENTS:			If given sufficient	time to cool.			
Client contacted Date contacted:			Pers	on contacted			
Contacted by:							
comments: Loureet time for same	.0.	-	9. M a.m	0 4 · O 4		Asul AS	12
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dy Record	stody Record		Turt I		32 0615	email or Fart CWAItevs & CWUINDIAL -INC. COM Project Manager.	Level 4 (Full Validation)				Sample Request ID	43396 - Conros 17E												Reinquistred by: 1	Relinquished by:	If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report
ain-of-C	NVR0		9675	HARMINGTON	202	ant Cwal			(vpe)		Time	0060												Time: 10:30	Time:	cessary, samples
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New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



April 2, 2008

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

RE: \$15,000 Cash Bond for Commercial Surface Waste Management Facility Permit NM-1-005 Basin Disposal, Inc., Principal Citizens Bank, Financial Institution Facility Location: SE/4 NW/4 of Section 3, Township 29 North, Range 11 West NMPM, San Juan County, New Mexico C.D. No. 0112967820

Dear Mr. Volkerding:

The New Mexico Oil Conservation Division (OCD) hereby approves the above-referenced Commercial Waste Management Facility Cash Bond.

Should you have any questions, please feel free to call the undersigned at (505) 476-3450.

Very truly yours,

Tarial K. Brookn

David K. Brooks Assistant General Counsel

DKB/baj

cc: Ms. Michelle Lindsay Citizens Bank 500 W. Broadway Farmington, New Mexico 87401





New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



April 1, 2008

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

APE () ()

#### RE: Basin Disposal, Inc. – Permit 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 request, dated March 28, 2008 and the revisions provided March 31, 2008, to temporary place twenty-five (25) 400 barrel tanks within a lined and bermed area for the temporary storage of produced water. The request has been submitted under the emergency exception provision of Subsection B of Section 19 of 19.15.36 NMAC. The emergency exception is the temporary increase of storage capacity in order to handle the backlog of produced removal due to poor weather conditions and the compliance of operators with the Bureau of Land Management's regulations regarding use of roads during inclement weather. This modification request is hereby approved under the following conditions and understandings:

- 1. Basin Disposal, Inc. shall submit an additional \$15,000 of financial assurance for OCD's review and approval prior to initiating any work or activities associated with this approval.
- 2. Basin Disposal, Inc. shall place no more than twenty-five (25) 400 bbls closed top tanks within the lined bermed area, as identified in the March 28, 2008 request.
- 3. Basin Disposal, Inc. shall construct a temporary storage area with a footprint no greater than 150' by 150', which shall be lined with a 20-mil LLDPE/HDPE or equivalent liner and have a design capacity of 12,000 barrels pursuant to the March 28, 2008 submittal and March 31, 2008 revisions.
- 4. Prior to the installation of the 25 tanks, Basin Disposal, Inc. shall inspect the integrity of the existing liner and replace or repair any comprised lined areas.
- 5. Basin Disposal, Inc. shall construct the temporary storage area in manner to control stormwater run-on and control stormwater run-off.
- 6. Basin Disposal, Inc. shall install the tanks in a manner to protect migratory birds, for tanks exceeding eight feet in diameter.

- 7. Basin Disposal, Inc. shall construct and install a 20-mil LLDPE/HDPE or equivalent lined and bermed area to connect and install a 4" hose to transfer produced water from the evaporation pond to the temporary tanks and from the tanks back into the evaporation pond pursuant to the March 28, 2008 submittal and March 31, 2008 revisions.
- 8. Basin Disposal, Inc. shall inspect the tanks, temporary storage area, and transfer hose daily for integrity, spills, and releases pursuant to the March 28, 2008 submittal and March 31, 2008 revisions.
- 9. Basin Disposal, Inc. shall operate the temporary storage area and manage all waste associated with the temporary modification pursuant to the March 28, 2008 submittal, the revisions provided March 31, 2008, and 19.15.36 NMAC.
- Basin Disposal, Inc. shall comply with the revisions and additions provided in the March 28, 2008 submittal and March 31, 2008 revisions to the Oil Field Waste Management SOP, H2S Prevention SOP, Closure Plan, Contingency Plan, and the Spill Prevention Control and Countermeasures Policy.
- 11. Basin Disposal, Inc. shall discontinue the use of the temporary storage area, remove the temporary tanks, and initiate the closure plan within six months of the effective date of this approval.
- 12. Basin Disposal, Inc. shall complete the closure of the area impacted from the activities associated with the temporary modification pursuant the Subsection E of 19.15.36 NMAC and the closure plan of the March 28, 2008 submittal and the additional revisions provided March 31, 2008. Such closure activities as the testing and removal of soils above the liner, the removal and disposal of the liner, and the testing of the soils beneath the liner shall be completed within nine months of the effective date of this approval.
- 13. Basin Disposal, Inc. shall demonstrate that the area impacted from the activities associated with the temporary modification is restored, that no contamination is present, and that the closure is complete to OCD's satisfaction. Upon review, confirmation, and approval of closure, OCD will release the financial assurance associated with the temporary modification.

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 <u>brad.a.jones@state.nm.us</u>.

Sincerely,

Wayne Price

Environmental Bureau Chief

LWP/baj cc: OCD District III Office, Aztec

#### John Volkerding

From:	John Volkerding [bdinc@digii.net]					
Sent:	Friday, March 28, 2008 11:10 AM					
То:	OCD Santa Fe- Wayne Price (wayne.price@state.nm.us); OCD Santa Fe- Brad Jones (brad.a.jones@state.nm.us)					
Subject:	Cash Bond for Waste Management Facilities: \$15,000					
Attachments: Temp Tanks 3-28-08 - Financial Ass Ltr.pdf; Tank 15K Financial Assurance.pdf						

#### Wayne and Brad;

Attached please find a pdf format of Cash Bond for Waste Management Facilities in the amount of \$15,000. The original will be placed in the US Mail today.

Have a good weekend, John

 John Volkerding

 General Manager

 Basin Disposal, Inc.

 PO Box 100. Aztec, NM 87410

 Office:
 505-334-3013

 Mobile:
 505-320-2840

 Fax:
 505-333-3898

 Plant:
 505-632-8936



28 March 2008

7004 2510 0005 9631 0836

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: \$15,000 Financial Assurance for Exception under 19.15.36.19 B NMAC For 25 Water Storage Tanks

Dear Mr. Jones;

Attached please find a pdf format of Cash Bond for Waste Management Facilities in the amount of \$15,000. The original will be placed in the US Mail today.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

 $\circ$ 

John Volkerding General Manager

Encl: Cash Bond for Waste Management Facilities

Cc: Brandon Powell, Aztec OCD Office, 1000 Rio Brazos, Aztec, NM 87410

Page 1 of 3

01/04

#### Energy, Minerals and Natural Resources Department Oil Conservation Division

#### Cash Bond For Waste Management Facilities

(File with Oil Conservation Division, 1220 South Saint Francis, Santa Fe, New Mexico 87505)

#### KNOW ALL MEN BY THESE PRESENTS:

The conditions of this obligation are such that:

The PRINCIPAL has heretofore or may hereafter enter into the collection, disposal, evaporation, remediation, reclamation, treatment or storage of produced water, drilling fluids, drill cuttings, completion fluids, contaminated soils, BS&W, tank bottoms, waste oil or other oil field related waste in Section 3. Township 29N, Range 1140, NMPM, 520, 320, County, New Mexico.

NOW, THEREFORE, this \$ <u>15,000</u> bond is conditioned upon substantial compliance with all applicable statutes of the State of New Mexico and all rules and orders of the DIVISION and the Oil Conservation Commission, and upon clean-up of the facility site to standards of the DIVISION; otherwise the bond is to be forfeited to the Division.

The PRINCIPAL has deposited funds on behalf of the DIVISION in the amount of \$15,000 .00 ( <u>Fifteen Thousand</u> dollars) in the manner indicated on page 2 of this instrument, Assignment of Cash Collateral Deposit, to secure this bond. The PRINCIPAL pledges the funds as a guarantee that it, its executors, assigns, heirs and administrators will abide by the Statutes of the State of New Mexico and the rules and orders of the DIVISION in operating the waste management facility described herein, and that it will properly reclaim the facility site upon cessation of operations. If the PRINCIPAL does not properly reclaim and restore the facility site, and otherwise abide by the rules and orders of the DIVISION, this bond shall be forfeited in full and such funds as necessary applied to the cost of reclaiming the facility site. If the amount of the bond is less than the actual cost incurred by the DIVISION in reclaiming the facility site, the DIVISION may institute legal action against the PRINCIPAL to recover any amounts expended over and above the amount of the bond.

NOW THEREFORE, if the above PRINCIPAL or its successors, assigns, heirs, administrators or any of them shall properly reclaim and restore the above-described facility site upon cessation of operations and otherwise abide by the rules and orders of the Division, then therefore, this obligation shall be null and void and the principal sum hereof shall be paid to the PRINCIPAL, or its successors, heirs, or administrator, otherwise it shall remain in full force and effect. Page 2 of 3

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01/04

#### Assignment of Cash Collateral Deposit For Bond for Waste Management Facility

Pursuant to Rule 711 of the Rules of the Oil Conservation	Division, or successor provisions,
	, (herinafter "Principal"), of
	(address) has deposited with the
Citizens Bank (name of the financial in	nstitution, which must be a federally insured
bank or savings institution within the state	of New Mexico) of
(address) (hereinafter "Financial Institution"), the sum of Fifteen The	
15000 .00) dollars in Certificate of Deposit or savings account No. 01129	67820 . The Principal hereby
assigns and conveys all right, title and interest in the deposited funds to the	e Financial Institution in trust for the Oil
Conservation Division of the Energy, Minerals and Natural Resources Depart	ment (hereinafter "Division") or successor
agency of the State of New Mexico. The Principal and the Financial Institut	ion agree that as to the deposited funds:

- The funds deposited pursuant to the terms of this Assignment are to serve as a cash bond covering a waste a. management facility operated by the Principal.
- b. The Division acquires by this Assignment the entire beneficial interest in the funds with the right to order the Financial Institution, in writing, to distribute the fund to persons determined by the Division to be entitled thereto, including the Division itself, in amounts determined by the Division, or to the Principal upon sale of the facility covered by this Assignment provided all applicable Division orders and rules have been complied with regarding the waste management facility.
- Ç. The Principal retains no legal or beneficial interest in the fund and has only the right to interest, if any, thereon, and to return of the fund upon written order of the Division in the event the Principal property reclaims the facility site and otherwise abides by the rules and order of the Division and the Oil Conservation Commission.
- d. The Financial Institution agrees that the funds may not be assigned, transferred pledged or distributed except upon written order of the Division or a court of competent jurisdiction made in a proceeding in which the Division is a party. The Financial Institution waives all statutory or common law liens or rights of set-off against the funds.

The Principal agrees that the Financial Institution may deduct from interest due the Principal any attorney fees incurred by the Financial Institution if claim or demand via writ, summons or other process arising from Principal's business is made upon the Financial Institution.

day of MARCH 2008 Signed this

Signature of PRINCIPAL, personally or by authorized officer

Title

Signature of authorized officer of Financial Institution

Title

(Note: If PRINCIPAL is corporation, affix corporate seal here.)

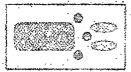
P.O. Lot 100 AZEC, Nm 87410

10. Broadway Farmington NM 8740

Mailing Address

Mailing Address

Page 3 of 3	01/04
ACKNOWLEDGMENT FORM FOR NATURAL PERSON	S
STATE OF)	
COUNTY OF)	
The foregoing instrument was acknowledged before me this day of	, <u>2</u> , by
My commission expires:	
Date Notary Public	
ACKNOWLEDGMENT FORM FOR CORPORATION, INCORPORATED A	ASSOCIATION OR
STATE OF ALW MUNICU	
STATE OF ALW MUNICE) SS. COUNTY OF San Jan)	
The foregoing instrument was acknowledged before me this $\frac{\partial \mathcal{B}}{\partial \mathcal{L}}$ day of $\int \mathcal{M}$	Wah , 2008, by
David C. Turner as (title) Sec.	retary Treas.
of <u>Basin</u> <u>Disposal</u> Inc. as (title) <u>Sec.</u> incorporated association, or partnership.	a comportion,
My commission expires:	
Date Notary Public Ma	a strange of
3128/2007	STA E
ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUT	
STATE OF Merice	
COUNTY OF Sun Juan	
The foregoing instrument was acknowledged before me this $\mathscr{B}$ and $\mathscr{M}$	wich 2008, by
Michelle Lindsay as (title) AVP	on behalf of
Citizens Bank	on behalf of
My commission expires:	With Charles Out of the
212612011	
Date Notary Rublic	allen S I
3/20/2008	
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"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD P.O. BOX 100 AZTEC: NEW MEXICO STANDE BOHONE: 1505) 334-3015

NISPO

2008 SEP 5 PM 2 24

2 September 2008

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: Analytical Results: Soil Beneath Liner in the Temporary Tank Storage Area Approved in March 2008

S.

Dear Mr. Jones;

Attached please find the results for the lab analysis of the soil beneath the liner from the temporary tank storage area approved in March 2008.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

John Volkerding General Manager2

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

Client:	Basin Disposal	Project #:	03058-0006
Sample ID:	Composite Under Liner	Date Reported:	07-29-08
Laboratory Number:	46392	Date Sampled:	07-15-08
Chain of Custody No:	4793	Date Received:	07-15-08
Sample Matrix:	Soil	Date Extracted:	07-25-08
Preservative:	Cool	Date Analyzed:	07-28-08
Condition:	Intact	Analysis Requested:	8015 TPH

		Det.
	Concentration	Limit
Parameter	(mg/Kg)	(mg/Kg)

Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	9.3	0.1
Total Petroleum Hydrocarbons	9.3	0.2

ND - Parameter not detected at the stated detection limit.

References:

Analyst

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

Comments: E

**Basin Yard** 

#### / Mistin Milete Review

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

### **Quality Assurance Report**

Client:	QA/QC		Project #:		N/A
Sample ID:	07-28-08 QA/0	C	Date Reported:		07-29-08
Laboratory Number:	46472		Date Sampled:		N/A
Sample Matrix:	Methylene Chlor	ide	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		07-28-08
Condition:	N/A		Analysis Reques	ted:	TPH
	-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept, Rang
Gasoline Range C5 - C10	05-07-07	1.0069E+003	1.0073E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0110E+003	1.0114E+003	0.04%	0 - 15%
Blank Conc. (mg/L - mg/Kg	1)	Concentration		Detection Limit	1
Gasoline Range C5 - C10		ND		0.2	4
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	9.4	9.3	1.1%	0 - 30%	
- ·	Sample	Spike Added	Spike Result	% Recovery	Accept Rang
Spike Conc. (mg/Kg) Gasoline Range C5 - C10	Sample ND	Spike Added 250	Spike Result 246	% Recovery 98.4%	Accept Rang 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 46472 - 46473, 46492 - 46495, and 46392.

Analyst

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

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Client: B	asin Disposal		Project #:		03058-0006
Sample ID: C	omposite Under Liner		Date Reported:		07-23-08
Chain of Custody: 4	793		Date Sampled:		07-15-08
Laboratory Number: 46	6392		Date Received:		07-15-08
Sample Matrix: So	oil		Date Analyzed:		07-23-08
Preservative: C	ool		Date Extracted:		07-23-08
Condition: C	ool and Intact		Analysis Reques	ted:	8260 VOC
				Det.	Dilution
Parameter		Concentration	Units	Limit	Factor
Benzene		ND	(ug/Kg)	1.0	1
Toluene		ND	(ug/Kg)	1.0	1
Ethylbenzene		ND	(ug/Kg)	1.0	1
Xylenes, Total		ND	(ug/Kg)	1.0	· 1
Methyl tert-butyl ether (MTBI	E) '	ND	(ug/Kg)	1.0	1
1,2,4-Trimethylbenzene		ND	(ug/Kg)	1.0	1
1,3,5-Trimethylbenzene		ND	(ug/Kg)	1.0	1
1,2-Dichloroethane (EDC)		ND	(ug/Kg)	1.0	1
1,2-Dibromoethane (EDB)		ND	(ug/Kg)	1.0	. 1
Naphthalene		ND	(ug/Kg)	1.0	1
1-Methylnaphthalene		ND	(ug/Kg)	2.0	1
2-Methylnaphthalene		ND	(ug/Kg)	2.0	1
Bromobenzene		ND	(ug/Kg)	1.0	1
Bromochloromethane		ND	(ug/Kg)	1.0	1
Bromodichloromethane		ND	(ug/Kg)	1.0	1
Bromoform		ND	(ug/Kg)	1.0	1
Bromomethane		ND	(ug/Kg)	1.0	1
Carbon Tetrachloride		ND	(ug/Kg)	1.0	1
Chlorobenzene		ND	(ug/Kg)	1.0	1
Chloroethane		ND	(ug/Kg)	2.0	1
Chloroform		ND	(ug/Kg)	1.0	1
Chloromethane		ND	(ug/Kg)	1.0	1
2-Chlorotoluene		ND	(ug/Kg)	1.0	1
4-Chlorotoluene		· ND	(ug/Kg)	1.0	· <b>1</b>
cis-1,2-Dichloroethene	•	ND	(ug/Kg)	1.0	1
cis-1,3-Dichloropropene		ND	(ug/Kg)	1.0	1
1,2-Dibromo-3-chloropropan	e	ND	(ug/Kg)	2.0	1
Dibromochloromethane		ND	(ug/Kg)	1.0	1
Dibromoethane		ND	(ug/Kg)	2.0	1
1,2-Dichlorobenzene		ND	(ug/Kg)	1.0	1
1,3-Dichlorobenzene		ND	(ug/Kg)	1.0	1
1,4-Dichlorobenzene		ND	(ug/Kg)	1.0	1
Dichlorodifluoromethane		ND	(ug/Kg)	1.0	1
1,1-Dichloroethane		ND	(ug/Kg)	1.0	1
1,1-Dichloroethene	-	• ND	(ug/Kg)	1.0	1
1,2-Dichloropropane		ND	(ug/Kg)	1.0	· · · ·
1,3-Dichloropropane		ND	(ug/Kg)	1.0	1
			(ug/Kg) (ug/Kg)		

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### EPA Method 8260B

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Volatile Organic Compounds by GC/MS

Under Liner Concentration (ug/Kg) ND ND ND ND ND ND ND ND ND ND ND ND ND	Units (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	Det. Limit 1.0 1.0 1.0 1.0 3.0 1.0 1.0 1.0 1.0 1.0 1.0	Dilution Factor 1 1 1 1 1 1 1 1 1 1 1 1 1
(ug/Kg) ND ND ND ND ND ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	Limit 1.0 1.0 1.0 1.0 3.0 1.0 1.0 1.0	Factor
(ug/Kg) ND ND ND ND ND ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	Limit 1.0 1.0 1.0 1.0 3.0 1.0 1.0 1.0	Factor
ND ND ND ND ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	1.0 1.0 1.0 1.0 3.0 1.0 1.0 1.0	
ND ND ND ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	1.0 1.0 3.0 1.0 1.0 1.0	1 1 1 1 1 1 1
ND ND ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	1.0 1.0 3.0 1.0 1.0 1.0	1 1 1 1 1 1
ND ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	1.0 3.0 1.0 1.0 1.0	1 1 1 1 1
ND ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	3.0 1.0 1.0 1.0	1 1 1 1
ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg) (ug/Kg)	1.0 1.0 1.0	1 1 1 1
ND ND ND ND	(ug/Kg) (ug/Kg) (ug/Kg)	1.0 1.0	1 1 1
ND ND ND	(ug/Kg) (ug/Kg)	1.0	1 1
ND ND	(ug/Kg)		1
ND		1.0	
	(ug/Kg)		1
ND		1.0	1
	์ (ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	<b>(ug/Kg)</b>	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	1.0	1
ND	(ug/Kg)	2.0	1
ND	(ug/Kg)	2.0	1
		Rec. Limits	
97.0	% Recovery		1
	-		1
·		• .	1
	-		1
-	ND ND ND ND	ND         (ug/Kg)           97.0         % Recovery           105         % Recovery           105         % Recovery	ND         (ug/Kg)         1.0           ND         (ug/Kg)         1.0           ND         (ug/Kg)         1.0           ND         (ug/Kg)         1.0           ND         (ug/Kg)         2.0           ND         (ug/Kg)         2.0           ND         (ug/Kg)         2.0           Rec. Limits           97.0         % Recovery         78.6-115           105         % Recovery         84.2-115

'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: Basin Yard.

Analyst

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### **QUALITY ASSURANCE / QUALITY CONTROL**

### DOCUMENTATION

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

Client:		Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-25-08
Laboratory Number:	07-23 VOA	Date Sampled:	· N/A
Sample Matrix:	Water _	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-23-08
Condition:	N/A	Analysis Requested:	8260 VOC
Condition:	N/A	Analysis Requested.	0200 \

	Concentration	1	Det.	Dilution
Parameter	(ug/L)	Units	Limit	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	<b>1</b>
Bromoform	ND	(ug/L)	1.0	1
Bromomethane	ND	(ug/L)	1.0	1
Carbon Tetrachloride	· ND	(ug/L)	1.0	1
Chiorobenzene	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 1 E
Dichlorodifluoromethane	ND	(ug/L)*	1.0	1
1,1-Dichloroethane	ND	(ug/L)	1.0	
1,1-Dichloroethane	ND ND	(ug/L) (ug/L)	1.0	الم المراجع الم المراجع الم المراجع الم المراجع الم
CONTRACT AND AN AND AN AN AN AND AN AN AN AN AND AN AN AN ANALASIA AND AN AN	ATTAIN STATES AND	1	1.0	
1,2-Dichloropropane	ND	(ug/L)	and the second states of the	
1,3-Dichloropropane	ND	(ug/L)	1.0	
2,2-Dichloropropane	ND	(ug/L)	1.0	

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### PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

·			Quai	ity Assurance R	eport
Client:	QA/QC	<u> </u>			
Sample ID:	Laboratory Blank				page 2
Laboratory Number:	07-23 VOA				
		Concentratio		Det.	Dilution
Parameter		(ug/L)	Units	Limit	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	<b>, 1</b>
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	<sup>'</sup> 1
trans-1,3-Dichloropropend	9	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-Trichiorobenzene		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:	* <u>.</u>			Rec. Limits	-
Dibromofluoromethane	· 2		% Recovery	78.6-115	1
1,2-Dichloroethane-d4	····	110	% Recovery	74.6-123	1
Toluene-d8	• .	110	% Recovery	84.2-115	1 1
4-Bromofluorobenzene		102	% Recovery	78.6-115	· 1 ·

ND = Parameter not detected at the stated detection limit.

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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 46392.

Analyst 4

Review

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

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Client:	QA/QC	Project #:	N/A
Sample ID:	Daily Calibration	Date Reported:	07-25-08
Laboratory Number:	07-23 QA/QC	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-23-08
Condition:	N/A	Analysis Requested:	8260 VOC

	Concentratio	n ''		% Recovery
Parameter	(ug/L)	Result	% Recovered	Limits
Benzene	100	100	100	80 - 120
Toluene	100	109	109	80 - 120
Ethylbenzene	100	104	104	80 - 120
Kylenes, Total	100	83.8	83.8	80 - 120
Methyl tert-butyl ether (MTBE)	100	101	101	80 - 120
1,2,4-Trimethylbenzene	100	106	106	80 - 120
I,3,5-Trimethylbenzene	100	100	100	80 - 120
,2-Dichloroethane (EDC)	100	95.8	95.8	80 - 120
,2-Dibromoethane (EDB)	100	109	109	80 - 120
Naphthalene	100	113	113	80 - 120
-Methylnaphthalene	100	94.9	94.9	80 - 120
-Methylnaphthalene	100	96.0	96.0	80 - 120
Bromobenzene	100	107	107	80 - 120
Bromochloromethane	100	97.6	97.6	80 - 120
romodichloromethane	100	96.0	96.0	80 - 120
romoform	100	105	105	80 - 120
romomethane	100	98.9	98.9	80 - 120
arbon Tetrachloride	100	94.0	94.0	80 - 120
chlorobenzene	100	108	108	80 - 120
hloroethane	100	105	105	80 - 120
hloroform	100	91.2	91.2	80 - 120
hloromethane	100	112	112	80 - 120
-Chiorotoluene	100	107	107	80 - 120
Chlorotoluene	100	113	113	80 - 120
s-1,2-Dichloroethene	100	110	110	80 - 120
s-1,3-Dichloropropene	100	101	101	80 - 120
2-Dibromo-3-chloropropane	100	115	115	80 - 120
ibromochloromethane	100	103	103	80 - 120
ibromoethane	100	105	105	80 - 120
2-Dichlorobenzene	100	113	113	80 - 120
3-Dichlorobenzene	100	109	109	80 - 120
4-Dichlorobenzene	100	107	103	80 - 120
神気 たっかい ちゃく ちゃく ちゃく うちゃく しょうしょう	100	99.9	99.9	80 - 120
ichlorodifluoromethane		97.5	97.5	80 - 120
·····································	100	98.3	· · · · · · · · · · · · · · · · · · ·	80 - 120 80 - 120
1-Dichloroethene	100	r		80 - 120
2-Dichloropropane	100	103	103	Lating and the state of the second
,3-Dichloropropane	100	107	107	80 - 120
,2-Dichloropropane	100	98.2	98.2	80 - 120

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### PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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

Quality Assurance Report

Client:	QA/QC		1.0		
Sample ID:	Daily Calibration				page 2
Laboratory Number:	07-23 QA/QC			· · · · · · · · · · · · · · · · · · ·	•
		Concentration			% Recovery
Parameter		(ug/L)	Result	% Recovered	Limits
1,1-Dichloropropene	-	100	98.2	98.2	80 - 120
Hexachlorobutadiene		100	91.0	91.0	80 - 120
Isopropylbenzene		100	105	105	80 - 120
4-Isopropyltoluene		100	107	107	80 - 120
Methylene Chloride		100	97.5	97.5	80 - 120
n-Butylbenzene		100	108	108	80 - 120
n-Propylbenzene		100	103	103	80 - 120
sec-Butylbenzene		100	107	107	80 - 120
Styrene		100	105	105	80 - 120
tert-Butylbenzene		100	109	109	80 - 120
Tetrachloroethene (PCE)		100	104	104	80 - 120
1,1,1,2-Tetrachloroethane		100	105	105	80 - 120
1,1,2,2-Tetrachloroethane		100	114	114	80 - 120
trans-1,2-Dichloroethene		100	94.2	94.2	80 - 120
trans-1,3-Dichloropropene	<b>)</b>	100	102	102	80 - 120
Trichloroethene (TCE)		100	104	104	80 - 120
Trichlorofluoromethane		100	96.7	96.7	80 - 120
1,2,3-Trichlorobenzene		100	111	111	80 - 120
1,2,4-Trichlorobenzene		100	114	114	80 - 120
1,1,1-Trichloroethane		100	97.0	97.0	80 - 120
1,1,2-Trichloroethane		<sup>*</sup> 100	100	100	80 - 120
1,2,3-Trichloropropane		100	112	112	80 - 120
Vinyl Chloride	· ·	100	105	105	80 - 120
			<u>.</u>	De a Limite	· · · · · · · · · · · · · · · · · · ·

Surrogates:		•	1	Rec. Limits	
Dibromofluoromethane	1	100	% Recovery	78.6-115	
1,2-Dichloroethane-d4	<del>.</del>	110	% Recovery	74.6-123	~
Toluene-d8	v	91.3	% Recovery	84.2-115	•
4-Bromofluorobenzene	· · · · · ·	92.1	% 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

•••• \* 7

Spectrometry, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992

Comments: QA/QC for Sample 46392.

1.11 Analyst

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Review

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

Client:	QA/QC		Project #:	N/A
Sample ID:	Matrix Spikes		Date Reported:	07-25-08
Laboratory Number:	07-23-VOA - 46392		Date Sampled:	N/A
Sample Matrix:	Soil		Date Received:	N/A
Preservative:	N/A	t. T	Date Analyzed:	07-23-08
Condition:	N/A	:	Analysis Requested:	8260 VOC

Spike	ι	Jnits: ug/K	g	н	Recovery	Det. Limit	
Analyte	Sample	Added	Result	%Recovery	Limits		
Benzene	ND	100.0	101	101%	85.3 - 120	1.0	
Toluene	ND	100.0	101	101%	73 - 123	1.0	
Chlorobenzene	ND	100.0	102	102%	84.7 - 119	1.0	
1,1-Dichloroethene	ND	100.0	115	115%	83.4 - 122	1.0	
Trichloroethene (TCE)	ND	100.0	97.9	97.9%	76.1 - 126	1.0	

Spike Duplicate	ι	Jnits: ug/K		Recovery	Det.	
Analyte	Sample	Added	Result	%Recovery	Limits	Limit
Benzene	ND	100.0	106	106%	85.3 - 120	1.0
Toluene	ND	100.0	100	99.9%	73 - 123	1.0
Chiorobenzene	ND	100.0	95.1	95.1%	84.7 - 119	1.0
1,1-Dichloroethene	ND	100.0	115	115%	83.4 - 122	1.0
Trichloroethene (TCE)	ND	100.0	102	102%	76.1 - 126	1.0

ND = Parameter not detected at the stated detection limit.

References:

Comments:

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

QA/QC for Sample 46392.

Analyst

/ h/u Review

### TION OMORF

#### **TRACE METAL ANALYSIS**

	<b>.</b>	00050.000
	•	03058-0006
Composite Under Liner	•	07-25-08
46392	Date Sampled:	07-15-08
4793	Date Received:	07-15-08
Soil	Date Analyzed:	07-23-08
Cool	Date Digested:	07-18-08
Cool & Intact	Analysis Needed:	Total Metals
· · · · · · · · · · · · · · · · · · ·	Det.	
Concentration	Limit	•
(mg/Kg)	(mg/Kg)	
0.003	0.001	
10.5	0.001	
0.002	0.001	
0.033	0.001	
0.316	0.001	
55.8	0.001	
0.062	0.001	
ND	0.001	
4.05	0.001	
ND	0.001	
ND	0.001	
÷		
	4793 Soil Cool Cool & Intact Concentration (mg/Kg) 0.003 10.5 0.002 0.033 0.316 55.8 0.062 ND 4.05 ND	Composite Under Liner         Date Reported:           46392         Date Sampled:           4793         Date Received:           Soil         Date Analyzed:           Cool         Date Digested:           Cool & Intact         Analysis Needed:           Det.         Det.           Concentration         Limit           (mg/Kg)         (mg/Kg)           0.003         0.001           10.5         0.001           0.002         0.001           0.316         0.001           0.316         0.001           ND         0.001           ND         0.001           ND         0.001           ND         0.001

ND - Parameter not detected at the stated detection limit.

**References:** 

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

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

Comments: **Basin Yard** 

Analys

Review

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#### TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

- .'

Client:		QA/QC		Project #:	:		N/A <sup>'</sup>
Sample ID:		07-23-TN		Date Rep	orted:		07-25-08
Laboratory Number:		46392		Date Sam	npled:		N/A
Sample Matrix:		Soil		Date Rec	eived:		N/A
Analysis Requested:		Trace M	etals	Date Ana	lyzed:		07-23-08
Condition:		N/A		Date Dige	ested:		07-18-08
3. Structure is if introduced in the size successful to the last methods.	Instrumen Blank (mg/l		Detectio	and the second sec	e Duplicate	% Diff.	Acceptance Range
Conc: (mg/Kg)	ND	ND	0.001	0.003	0.003	0.0%	0% - 30%
Barium	ND	ND	0.001	10.5	10.4	0.8%	0% - 30%
Cadmium	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.033	0.038	14.6%	0% - 30%
Copper	ND	ND	0.001	0.316	0.315	0.5%	0% - 30%
Iron	ND	ND	0.001	55.8	58.0	3.9%	0% - 30%
Lead	ND	ND	0.001	0.062	0.064	2.6%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Manganese	ND	ND	0.001	4.05	4.50	11.2%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Zinc	ND	ND	0.001	0.170	0.179	5.5%	0% - 30%

Spike	Spike	Sample	Spiked	Percent	Acceptance
Conc. (mg/Kg) Arsenic	Added 0.250	0.003	Sample 0.254	Recovery 100.4%	Range 80% - 120%
Barium	0.500	10.5	11.2	102%	80% - 120%
Cadmium	0.250	0.002	0.255	101%	80% - 120%
Chromium	0.500	0.033	0.504	95%	80% - 120%
Copper	0.500	0.316	0.854	105%	80% - 120%
Iron	0.500	55.8	56.7	101%	80% - 120%
Lead	0.500	0.062	0.577	103%	80% - 120%
Mercury	0.100	ND ·	0.099	99.0%	80% - 120%
Manganese	0.500	4.05	4.65	102%	80% - 120%
Selenium	0.100	ND	0.097	97.0%	80% - 120%
Silver	0.100	ND	0.101	101%	80% - 120%
Zinc State Contractor	0.500	0.170	0.700	105%	80% - 120%
		•			, ·

ND - Parameter not detected at the stated detection limit.

References:

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

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

Comments:

Analyst

QA/QC for Sample 46392.

<u>Review</u>

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Water Analysis

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Client:	Basin Disposal	Project #:	03058-0006	
Sample ID:	Composite Under Liner	Date Reported:	07-21-08	
_aboratory Number:	46392	Date Sampled:	07-15-08	
Sample Matrix:	Soil Extract_	Date Received:	07-15-08	
Preservative:	Cool	Date Analyzed:	07-17-08	
Condition:	Cool & Intact	Chain of Custody:	4793	,
	Analy	tical		
Paramete	r Res	ult	Units	-
				·1 ]
рН		7.34	su	
Total Dissolved So	lids @ 180C	864	mg/L	
Nitrate Nitrogen		2.04	mg/L	
Cyanide		<0.1	mg/L	. •
Fluoride	(	0.485	mg/L	
Chloride	ţ	55.2	mg/L	لوالي مع ۲۰ سوحما سوحما
Sulfate		616	mg/L	

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

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Review

Comments:

Analys

**Reference:** 

Basin Yard.

### CHAIN OF CUSTODY RECORD

Client: Basin Dise	osa I	•	Project Name / Loc Basin Varia			لين من							- 3r	ANA	LYSIS	/ PAF	RAME	ſERS					
Client Address: 200 Montana R	:	mfdeld	Sampler Name: 6. Craftra	· · ·					8015)	8021)	8260)	S S	Nos PH						22.22		1953		
Client Phone No.: (\$05 <sup>-</sup> ) 496 - 3078			Client No.: 03053-000	6	مي • ب	्रे. य पुरुष हेर्द्र	1		TPH (Method 8	BTEX (Method	(Method	AC Second	/Anion		Nith H/P		18.1)	19-5-	2	PAH S	12.25	e/Cool	e infact
Sample No./ Identification	Sample Date	Sampl Time	I I AN NO I	Sample Matrix	No./Volume of Containers			tive	N) Hait	BTEX (	NOC ()	RCRA & Mete	Cation	<b>PCI</b>	TCLPW	PAH	TPH (4	32	1202	8160	Po's	Sample	Sample
Composite Under liner	7/.5/03	1235	46392	50'1	2-402 1-1606 1-649		 • • •		V		V	J	V					11	<i>.</i>		V	Ľ	売に設計
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						vali i	 																
Relinquished by: (Sign	ature)	Λ	Ł	· · · · · · · · · · · · · · · · · · ·	Date	Tim 133		Re	eceiv	ed by:	(Sigr	ature)		<b>H</b> (	<u>کے اور</u>	7 fen					Date lis jo	7 Tim 8 173	A.S.A.
Relinquished by: (Sign	ature)			· · · · · ·				Re	eceiv	ed by:	:(Sigr	ature)											
Relinquished by: (Sign	ature)		1	· · · ·	* * * *		a A	Re	eceiv	ed by:	(Sigr	ature)											
			5796		hway. 64									2-061	<b>0</b>								

Station 52

4793

# PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

### EPA METHOD 8270 PHENOLS

Client:	Basin Disposal	Project #:	03058-0006
Sample ID:	Composite Under Liner	Date Reported:	07-25-08
Laboratory Number:	46392	Date Sampled:	07-15-08
Chain of Custody:	4793	Date Received:	07-15-08
Sample Matrix:	Soil	Date Extracted:	07-22-08
Preservative:	Cool	Date Analyzed:	07-24-08
Condition:	Intact	Analysis Requested:	Phenols

Parameter	Concentration (mg/Kg)	Detection Limit (mg/Kg)	Regulatory Limit (mg/Kg)
o-Cresol	ND	0.005	200
p,m-Cresol	ND	0.005	200
2,4,6-Trichlorophenol	ND	0.005	2.0
2,4,5-Trichlorophenol	ND	0.005	<b>400</b>
Pentachlorophenol	ND	0.005	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recover	ies: Parameter	Percent Recovery
	2-Fluorophenol	98.0%
	2,4,6-Tribromophenol	97.0%
- · ·		
	Method 1311, Toxicity Characteristic Leaching	Procedure Test Methods for Evaluating Solid
	Waste, SW-846, USEPA, July 1992.	· · · · · · · · · · · · · · · · · · ·
	Method 3510, Separatory Funnel Liquid-Liquid	Extraction, Test Methods for Evaluating Solid
	Waste, SW-846, USEPA, July 1992.	•
•	Nothed 9270 Bhonele Test Methods for Evolu	ating Solid Waste, SW-846, USEPA, Sept. 1986.
۰.		ating Solid Waste, SW-040, USEFA, Sept. 1900.
Note:	Regulatory Limits based on 40 CFR part 261 st	Ibpart C section 261 24 July 1 1992
Comments:	Basin Yard.	
	· · · · · · · · · · · · · · · · · · ·	
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Du		(mother )) ceter
Analyst		Review

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### PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

### EPA METHOD 8270 PHENOLS Quality Assurance Report

Client:	QA/QC			Project #:		N/A	
Sample ID:	07-24-TCA QA/	QC		Date Reported:			
Laboratory Number:	46392 -			Date Sampled	l:	N/A	
Sample Matrix:	2-Propanol			Date Received:			
Preservative:	N/A			Date Analyzed	d:	07-24-08	
Condition:	N/A			Phenols			
Blanks & Duplicate	Instrument	Method	Detection	Sample	Duplicate	Percent	
Conc (mg/Kg)	Blank	Blank	Limit			Diff.	
o-Cresol	ND	ND	0.005	ND	ND	0.0%	
p,m-Cresol	ND	ND	0.005	ND	ND	0.0%	
2,4,6-Trichlorophenol	ND	ND	0.005	ND	ND	0.0%	
2,4,5-Trichlorophenol	ND	ND	0.005	ND	ND	0.0%	
Pentachlorophenol	ND	ND	0.005	ND	ND	0.0%	

ND - Parameter not detected at the stated detection limit.

**References:** 

Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8041, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Comments:

QA/QC for Sample 46392.

Analyst

Review

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CLIENT:	Envirotech			· -	-	pt Composite Under Liner
ab Order:	0807220	·		Collection Dat	e: 7/15/200	8 12:35:00 PM
Project:	Basin Disposal		·	Date Receive	d: 7/17/200	8
ab ID:	0807220-01	<b>.</b>		Matri	x: SOIL	
nalyses		Result	PQL	Qual Units	DF	Date Analyzed
PA METHOD	8082: PCB'S					Analyst: JMP
Aroclor 1016		ND	0.020	mg/Kg	1	7/26/2008 7:17:59 AM
Arocior 1221		ND	0.020	mg/Kg	· 1	7/26/2008 7:17:59 AM
Aroclor 1232		ND	0.020	mg/Kg	1	7/26/2008 7:17:59 AM
Aroclor 1242		ND	0.020	mg/Kg	-1	7/26/2008 7:17:59 AM
Arocior 1248		ND	0.020	mg/Kg	1	7/26/2008 7:17:59 AM
Aroclor 1254		ND	0.020	mg/Kg	1	7/26/2008 7:17:59 AM
Aroclor 1280		ND	0.020	mg/Kg	· 1 .	7/26/2008 7:17:59 AM
Surr: Decachi	orobiphenyl	47.6	15.8-133	%REÇ	1	7/26/2008 7:17:59 AM
	3310: PAHS					Analyst: DMF
Naphthalene		<ul> <li>ND</li> </ul>	0.25	mg/Kg	1	7/30/2008 3:18:04 AM
1-Methylnaphtha	lene	· ND	0.25	mg/Kg	1	7/30/2008 3:18:04 AM
2-Methylnaphtha	llene	, ND	0.25	mg/Kg	1 ·	7/30/2008 3:18:04 AM
Acenaphthylene	, , , , , , , , , , , , , , , , , , ,	ND	0.25	mg/Kg	í î1 î	7/30/2008 3:18:04 AM
Acenaphthene	: :	ND	0.25	mg/Kg	1	7/30/2008 3:18:04 AM
Fluorene	1.48 1.11	ND	0.030	mg/Kg <	<b>1</b>	7/30/2008 3:18:04 AM
Phenanthrene	5. T. T	ND	0,015	mg/Kg	1.	7/30/2008 3:18:04 AM
Anthracene	and the states of the	ND	°i ∴0.015	mg/Kg	S - 1 S - S	7/30/2008 3:18:04 AM
Fluoranthene 🚱		ND	0.020	mg/Kg 🤌	1	7/30/2008 3:18:04 AM
Pyrene		ND	0.025	🐪 👘 mg/Kg 👘 了	15	7/30/2008 3:18:04 AM
Benz(a)anthrace	ne	ND	0.010	mg/Kg	<b>1</b>	7/30/2008 3:18:04 AM
Chrysene		ND	0.011	mg/Kg	1 1	7/30/2008 3:18:04 AM
Benzo(b)fluorant	hene	ND ND	0.010	mg/Kg	1 I	7/30/2008 3:18:04 AM
Benzo(k)fluoranti	hene	ND	0.010	mg/Kg	<b>1</b>	7/30/2008 3:18:04 AM
Benzo(a)pyrene		ND	0.010	📉 mg/Kg 🐁 🚡		7/30/2008 3:18:04 AM
Dibenz(a,h)anthr	acene : C	ND	0.010	mg/Kg	er <b>1</b>	7/30/2008 3:18:04 AM
Benzo(g,h,i)peryl	ene	ND	0.010	mg/Kg	<b>新行 1</b> 家語	7/30/2008 3:18:04 AM
ndeno(1,2,3-cd)	6 . SW	ND	0.10	mg/Kg		7/30/2008 3:18:04 AM

:

12 1000 no

Qualifiers: Value exceeds Maximum Contaminant Level E Value above quantitation range
 Analyte detected below quantitation limits
 ND Not Detected at the Reporting Limit
 S - Spike recovery outside accepted recovery limits B Analyte detected in the associated Method Blank H (Holding times for preparation or analysis exceeded MCL Maximum Contaminant Level RL Reporting Limit

Page 1 of 1

LAB ID: PA39-401

### Benchmark Analytics, Inc.

4777 Saucon Creek Road Center Valley, PA 18034

Work Order: 08072639

Phone: (610) 974-8100 Fax: (610) 974-8104

NAME: COMPANY: ADDRESS:	Ann Thorne Hall Environmental A 4901 Hawkins NE, S Albuquerque, NM 8	Suite D		F		08072639 1 of 1			
PHONE: FAX:	(505) 345-3975 (505) 345-4107	TE	EST REPORT	PWS ID#		. 4			
0807220									
RECEIVED F	OR LAB BY: SMM	DAT	E: 07/18/2008 8:50				Page 1 of 1		
SAMPLE: 08	07220-01B, 46392-5 pt	Composite Under	Lab ID: 08072639-001A	Grab		-			
	D BY: Client	- San	nple Time: 07/15/2008 12:35						
<u>Test</u> Uranium Percent Mo	olsture	<u>Result</u> 0.312 mg/Kg-dry 1.0 %	<u>Method</u> EPA 6020 PERCENT MOISTURE	<u>RL</u>	Analysis Sta 07/23/08 15: 07/18/08 12:4	10 07/29/0	8 JRA-CV		
			······································		•• ••• • • • • • • • • • • • • • • • •		· ······		

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples. CV = Benchmark Analytics, Inc. Center Valley, PA; SA = Benchmark Analytics, Inc. Sayre PA

clim<u>i</u>

DATE 8//3/2008

LAB ID: PA39-401

### BENCHMARK ANALYTICS, INC. 4777 Saucon Creek Road Center Valley, PA 18034-9004

44

Work Order: 08072639

### PHONE (610) 974-8100 FAX (610) 974-8104

SEND DATA TO:	
NAME: Ann Thoms	WO#: 08072639
COMPANY: Hall Environmental Analysis Lab, Inc. ADDRESS: 4901 Hawkins NE, Suite D	PAGE: 1 of 1
Albuquerque, NM 87109-4372	PO#:
PHONE: (505) 345-3975 <b>TEST REPORT</b> FAX: (505) 345-4107	PWS ID#
0807220 RECEIVED FOR LAB BY: SMM DATE: 07/18/2008 8:50	
DATE. UNITO DATE ON INTERPORT	Page 1 of 1
SAMPLE:         0807220-01B, 46392-5 pt Composite Under Liner Lab ID:         08072639-00           SAMPLED BY:         Client         Sample Time         07/15/2008 12:35	1A Grab
IestResultUncert.MDAUnitsMethodRadium-22876.39± 5.7416pCl/KgEPA 903	MCL. Analysis Start Analysis End Analyst * 0 07/29/08 12:25 08/09/08 BH-CV
Radium-228 50.47 ± 10.30 12.72 pCl/Kg EPA 904	0 08/01/08 7:30 08/05/08 CCA-CV

REMARKS:

The above test procedures meet all the requirements of NELAC and relate only to these samples CV = Benchmark Analytics, Inc. Center Valley, PA: SA = Benchmark Analytics, Inc., Sayre, PA

MANAGER

clamb.

DATE:

8/13/2008

Analyte     Result     Units     PQL     %Rec     LowLimit     Work Orde       Method:     EPA Method 8082: PCB's     MBLK     Work Orde     Work Orde     Work Orde       Aroctor 1016     MBLK     MBLK     MBLK     Batch ID:     16537     Areabatic       Aroctor 1232     ND     mg/Kg     0.020     Batch ID:     16537     Areabatic	Quai 2008 9:15:23 A
Hotsing:       EPA Method 8082: PCB's       Work Order         Aroclor 1018       MBLK       MBLK       Batch ID:       18537       Analysis Date:       7/25/2         Aroclor 1221       ND       mg/Kg       0.020       Batch ID:       18537       Analysis Date:       7/25/2         Aroclor 1242       ND       mg/Kg       0.020       Malysis Date:       7/25/2         Aroclor 1248       ND       mg/Kg       0.020       Malysis Date:       7/25/2         Aroclor 1240       ND       mg/Kg       0.020       Malysis Date:       7/25/2         Aroclor 1240       ND       mg/Kg       0.020       Malysis Date:       7/25/2         Aroclor 1240       ND       mg/Kg       0.020       Malysis Date:       7/25/2         Aroclor 1260       ND       mg/Kg       0.020       Malysis Date:       7/25/2         Sample ID:       LCSD-18537       0.03885       mg/Kg       0.020       Malysis Date:       7/25/2         Aroclor 1260       LCSD       0.06295       mg/Kg       0.020       31.1       23.7       105       47.3       20	Quai 2008 9:15:23 A
Aroclor 1016       MBLK         Aroclor 1221       ND       mg/Kg       0.020         Aroclor 1232       ND       mg/Kg       0.020         Aroclor 1242       ND       mg/Kg       0.020         Aroclor 1248       ND       mg/Kg       0.020         Aroclor 1254       ND       mg/Kg       0.020         Aroclor 1260       LCS-18537       0.03885       mg/Kg       0.020         Aroclor 1280       0.06295       mg/Kg       0.020       31.1       23.7       105         Batch ID:       16537       Analysis Date:       7/25/2008 10       10.06295         0.06295       mg/Kg       0.020       50.4       23.7       105       47.3       20	Quai 2008 9:15:23 A
Aroctor 1242       ND       mg/kg       0.020       Batch ID:       18537       Analysis Date:       7/25/20         Aroctor 1242       ND       mg/kg       0.020       7/25/20	2008 9:15:23 A 0:05:06 AM
Aroclor 1260       ND       Ing/Kg       0.020         Sample ID:       LCS       0.020         Aroclor 1260       LCS       0.020         Sample ID:       LCSD-16537       0.03885       mg/Kg       0.020       31.1       23.7       105       Analysis Date:       7/25/2008 10         0.06295       mg/Kg       0.020       50.4       23.7       105       Analysis Date:       7/25/2008 10         47.3       20	0:05:06 AM :54:01 AM
LCSD 0.020 31.1 23.7 105 Analysis Date: 7/25/2008 10 0.06295 mg/Kg 0.020 50.4 23.7 105 Analysis Date: 7/25/2008 10 47.3 20	0:05:06 AM :54:01 AM
23.7 105 105 7/25/2008 10 47.3 20	:54:01 AM
R	
ある。「「「「「「「「」」」」、「「「」」」、「「「「」」、「」」、「」」、「」、「」	
ere: Value above quantitation range nalyte detected below quantitation limits PD outside accepted recovery us	
PD outside accepted recovery limits S Splice recovery outside accepted recovery limits	

### Benchmark Analytics, Inc.

Date: 13-Aug-08

CLIENT: Hall Environmental Analysis Lab, Inc 08072639 Work Order: Project: 0807220

### ANALYTICAL QC SUMMARY REPORT

### TestCode: ME\_ICPMS\_S

Sample ID: MBLK ES 072308 A SampType: MBLK TestCode: ME_ICPMS_ Units: mg/Kg Prep Date: Client ID: PBS Batch ID: ES 072308 A TestNo: SW6020 Analysis Date: 7/23/2008	RunNo: 25659 SegNo: 485703
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Var (0.220)	%RPD RPDLimit Qual
Sample ID: LFB ES 072308 A SampType: LFB TestCode: ME_ICPMS_ Units: mg/Kg Prep Date: Client ID ZZZZZZ Batch ID: ES 072308 A TestNo: SW6020 Analysis Date: 7/23/2008	RunNo: 25659 SeqNo: 485704
Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Uranium 18.3 0.243 19.44 0 85 115	%RPD RPDLimit Qual
Sample ID, MBLK ES 072308 A SampType: MBLK TestCode: ME_ICPMS_ Units: mg/Kg Prep Date: Citent ID, PBS Batch ID; ES 072308 A TestNo; SW6020 Analysis Date: 7/23/2008 Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val	RunNo: 25733 SeqNo: 487433 %RPD RPDLimit Qual
Uranium <0.220	
Sample ID: LFB ES 072308 A       SampType: LFB       TestCode: 'ME_ICPMIS Units: mg/Kg       Prep Date:         Client ID::       ZZZZZZZ       Batch ID:: ES 072308 A       TestNo: SW6020       Analysis Date: 7/23/2008	RunNo: 25733 SeqNo: 487434

Analyte POL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Resu Qual

Uranium 0.243 17.5 90.0 85 115

Limit of detection increased due to matrix interference an E Value above quantitation range Qualifiers: Analyte detected in the associated Method Blank D B Analyte reported below quantitation limits Value above calibration range but within annually verifie LBP Lead based paint is defined as a paint with greater than PHQC Sample pH was >2. Due to matrix effects, not all quality Due to matrix effects, not all quality control parameters 0

Page 1 of 5 R RPD outside accepted recovery limits

### CLIENT: Hall

### Hall Environmental Analysis Lab, Inc.

Work Order: 08072639 Project: 0807220

### ANALYTICAL QC SUMMARY REPORT

TestCode: PMOIST

S	arople ID: MB-R25211 Sent ID: PBS	SampType: MBLK Batch ID: R25211	TestCode: PMOIST Units: % TestNo: D2216		Prep Date: Analysis Date: 7/18/2008	RunNo: 25211 SeqNo: 476383	
P	nalyte arcent Moisture	Result	PQL SPK value SPK Ref Val	%REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit	Qual
に震	ample (D.) (08072539-001ADUP lent (D.) (0807220-01B, 46392-5 j lent (D.) (0807220-01B, 46392-5 j	SampType: DUP ot Batch ID: R25211 Result	TestCode PMOIST Units: %	%REC	Prep Date: Analysis Date: 7/18/2008 LowLimit HighLimit RPD Ref Val	RunNo: 25211 SeqNo: 476385	
PRESIDENT	rcent Moisture	1.0	0		1.000	%RPD RPDLimit 0 25	Qual
				· · · ·			
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 Orealifiers:
 B
 Analyte detected in the associated Method Blank
 D
 Limit of

 J
 Analyte reported below quantitation limits
 L
 Value a

 PHQC
 Sample pH was >2. Due to matrix effects, not all quality
 Q
 Due to

Limit of detection increased due to matrix interference an E Value above calibration range but within annually verifie LBP Due to matrix effects, not all quality control parameters R

Value above quantitation range Page 2 of 5 Lead based paint is defined as a paint with greater than RPD outside accepted recovery limits

#### CLIENT: Hall Environmental Analysis Lab, Inc. 08072639

0807220

Work Order:

Project:

### **ANALYTICAL QC SUMMARY REPORT**

TestCode: RA226\_903.0

Sample ID: BLANK SampType: MBLLK TestCode: RA225_903.0 Units: pCI/L Prep Date:	RunNo: 26260
Client ID: PBW Batch ID: R25250 TestNo: E903.0 Analysis Date: 7/29/2008	SeqNo: 496658
Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val Redum-228	%RPD RPDLimit Qual
Sample ID: EXTR: BLANK SampType: MBLK TestCode: RA226_903.0 Units: pCI/L Prep Date:	RunNa: <b>26260</b>
Client ID: PBW Batch ID: R26260 TestNo: E903.0 Analysis Date: 7/29/2008	SeqNa: <b>496659</b>
Analyte Result POL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Radium-225 Sample ID: LCS SampType: LCS TestCode: RA226_903.0 Units: pCi/L. Prep Date:	RunNo: 26268
Client ID:       LCSW       Banch ID:       R26260       TestNo:       E903.0       Analysis Date:       7/29/2008         Analysis       Result       PQL       SPK value       SPK Ref Val       %REC       LowLimit       HighLimit       RPD Ref Val         Redum-226       11.46       0       108       74       126	SeqNo: 496560 %RPD RPDLimit Quai
Sample ID: LCS DUP1 SampType: LCSD TestCode: RA226_903.0 Units: pCI/L Prep Date:	RunNo: 26260
Client ID: LCSS02 Batch ID: R26260 TestNo: E903.0 Analysis Date: 7/29/2008	SeqNo: 496661

Analyte %REC LowLimit HighLimit RPD Ref Val POL SPK value SPK Ref Val %RPD RPDLimit Qual

Radium-226 10.66 0

1.32.2	Sample ID: LCS DUP2 RC SampType: LCSD TestCode: RA226_903.0 & Units: pCi/L Prep Date:	RunNo: 26260
	Client ID: LCSS02 Analysis Date: 7/29/2008	SeqNo: 497922
	Analyte Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
35.) ·	Analyte SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val	ANTO NEOLINII Guai

Qualifiers: Limit of detection increased due to matrix interference an Analyte detected in the associated Method Blank B E Analyte reported below quantitation limits Value above calibration range but within annually verifie LBP Lead based paint is defined as a paint with greater that PHOC Sample pH was >2. Doe to matrix effects, not all quality Due to matrix effects, not all quality control parameters. O

Value above quantitation range Page 3 of 5 R RPD outside accepted recovery limits

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### ANALYTICAL QC SUMMARY REPORT

TestCode: RA228\_904.0

Sample ID: BLANK SampType: MBLK TestCode: RA228_904.0 Units: pCI/L Client ID: PBW Batch ID: R26019 TestNo: E904.0	Prep Date: Analysis Date: 8/1/2008	RunNo: 26019 SeqNo: 492231
Analyte POL SPK value SPK Ret Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
R301m-228		
Sample ID: LCS Client ID: LCSW Batch ID: R26019 TestNo: E904.0	Prep Date: Analysis Date: 8/1/2008	RunNo: 26019 SegNo: 492233
Analyte PQL: SPK value SPK Ref Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Radium-228	57 143	
Sample ID: LFB-1 SampType: LFB TestCode: RA228_994.0 Units: pCi/L Client ID: ZZZZZZ Batch ID: R26019 TestNo: E904.0	Prep Date: Analysis Date: 8/1/2008	RunNo: 26019 SeqNo: 492234
Analyte Result POL SPK value SPK Ref Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Radium-228 0 71.0	57 143	
Sampte ID: LFB-2 SampType: LFB, TestCode: RA228_904.0 Units: pCi/L Client ID: ZZZZZZ Batch ID: R26019 TestNo: E904.0	Prep Date: Analysis Date: 8/1/2008	RunNo: 26019 SeqNo: 492235
Anatyte Result POL SPK value SPK Ref Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Radum-228 0 47.0	57 143	S
Sample ID: LFBD-1; SampType: LFBD TestCode: RA228_904.0 Units: pCt/L Client ID: ZZZZZZ Satch ID: R26019 TestNo: E904.0	Prep Date: Analysis Date: 8/1/2008	RunNo: 26019 SeqNo: 492236
Analyte Result POL SPK value SPK Ref Val %REC	LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Radium-228 0. 87.0	57 143	60.0 0

Qualifiers: Analyte detected in the associated Method Blank Limit of detection increased due to matrix interference an Value above quantitation range B D Ê Analyte reported below quantitation limits Value above calibration range but within annually verifie LBP Lead based paint is defined as a paint with greater than PHQC Sample pH was >2. Due to matrix effects, not all quality Due to matrix effects, not all quality control parameters R RPD outside accepted recovery limits Ö

Page 4 of 5

CLEENT: Hall Environmental Analysis   Work Order: 08072639 Project: 0807220	ab, Inc.	ANAI	LYTICAL QC S TestCode:	UMMARY RA228_904.0		PRT
Sample ID: LFBID-2	FBD TestCode: RA228_904.0 Units: pCi/L 26019 TestNo: E904.0 POL SPK value SPK Ref Val %F	Analysis	Date: Date: 8/1/2008	RunNo: 2601 SeqNo: 4922	19 237	
Radium-228	22.84		HighLimit RPD Ref Va 143	11.0	RPDLimit 0	Qual

3.63

Analyte detected in the associated Method Blank Qualifiers: B Analyte reported below quantitation limits LBP Lead based paint is defined as a paint with greater than PHOC Sample pH was >2. Due to matrix effects, not all quality Q Due to matrix effects, not all quality control parameters

Page 5 of 5 R RPD outside accepted recovery limits

### Hall Environmental Analysis Laboratory, Inc.

Date: 13-Aug-08

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### **QA/QC SUMMARY REPORT**

Analyte Method: EPA Method 8310: Sample ID: MB-16602 Naphthalene 1-Methylnaphthalene 2-Methylnaphthalene Acenaphthylene	Result PAHs ND ND ND ND	Units MBLK mg/Kg mg/Kg	PQL 	%Rec		HighLimit	%RPD	RPDLimit (	2ual
Sample ID: MB-16502 Naphthalene 1-Methylnaphthalene 2-Methylnaphthalene	ND ND	MBLK mg/Kg	. 0.25					, <u></u>	
Naphthalene 1-Methylnaphthalene 2-Methylnaphthalene	ND	mg/Kg	. 0.25						
1-Methyinaphthalene 2-Methyinaphthalene	ND		0.25		Batch	D: 16502	Analysis Da	ite: 7/29/20	08 7:09:44
2-Methylnaphthalene									
	ND		0.25						
Acenaphthylene		mg/Kg	0.25						
	, PND	mg/Kg	. 0.25			•		•	
Acenaphthene	ND	mg/Kg	0.25					•	
Fluorene	ND	mg/Kg	0.030		(				
Phenanthrene	ND	mg/Kg	0.015						
Anthracene	ND	mg/Kg	÷ 0.015					1	
Fluoranthene	ND	mg/Kg	0.020						
Pyrene	ND	mg/Kg	0.025						
Benz(a)anthracene	ND	mg/Kg	0.010						
Chrysene	ND		0.011						
Benzo(b)fluoranthene	ND	mg/Kg	0.010					3	
Benzo(k)fluoranthene	ND	mg/Kg	0.010						
Benzo(a)pyrene	ND	mg/Kg	0.0013						
Dibenz(a,h)anthracene	ND	mg/Kg	0.010						
Benzo(g,h,i)perylene	ND	mg/Kg	0.010					1	
ndeno(1,2,3-cd)pyrene	ND	√mg/Kg	0.10						
Sample ID: LCS-16502		LCS			Batch II	): 16502	Analysis Date	. 700000	8 7:57:42
Naphthalene	1.257	Smg/Kg 🔬	. }	CO 0 1	1		Analysis Date	3. 1123/200	01.01:421
-Methylnaphthalene	1.279	mg/Kg	0.25	62.8	30.1	90.4		· · · ·	. <sup>1</sup> .
-Methylnaphthalene	1.265	mg/Kg	0.25	63.9 	31.1	88.5			• .
cenaphthylene	1.205		0.25	63.3	32.2	89			
cenaphthene	3 July 1 - 1 - 1 - 44 8	mg/Kg	0.25	61,7	29.5	94.2			•
luorene	1.271	mg/Kg	0.25	63.5	35.6	89.7	•••••		`
Phenanthrene	0.1242	mg/Kg	0.030	62.1	<b>36.9</b>	90.7			
nthracene	0.06825	mg/Kg	0.015	62.9	. 37.2	ື <b>95.3</b>			
luoranthene	0.06575	🦛g/Kg 🛁	0.015	63.6	37.4	.95.4			. · · ·
vrene	0.1240	. mg/Kg 🦾	0.020	61.8	30.4	97.8		, , , , , , , , , , , , , , , , , , ,	
	0.1288	mg/Kg	0.025	64.4	33.3	100			
enz(a)anthracene	0.01325	mg/Kg	0.010	66.2	38.9	102		· • •	
hrysene enzo(b)fluoranthene	0.06450	mg/Kg	0.011	64.1	24.2	100	12 <sup>14</sup>		
	0.01700	mg/Kg	0.010	68.0		102		and a state of the	
enzo(k)fluoranthene	ND	mg/Kg	S_0.010	68.0	30.4	.101	·····		1
enzo(a)pyrene	0.01008	mg/Kg	0.0013	80.2	29.6	112			
ibenz(a,h)anthracene	0.01675	mg/Kg	0.010	35.0	29.3	108		· · · · · ·	ندتر م
enzo(g,h,i)perviene	0.02300 ND	/mg/Kg mg/Kg	0.010	92.0	21.3	116		֥	i

#### Qualifiers

E Value above quantitation range J. Analyte detected below quantitation limits R. RPD outside accepted recovery limits

Holding times for preparation or analysis exceeded H ND Not Detected at the Reporting Limit Spike recovery outside accepted recovery limits



### Hall Environmental Analysis Laboratory, Inc.

Sample	Receipt Che	cklist			•
Client Name ENVIROTECH		Date Received:		7/17/2008	
Work Order Number 0807220	_	Received by:	ARS	A 0	
Checklist completed by:		Sample ID labels ch		US Initials	
Matrix: Carrier name	Grevhound	<i>,</i>		·	
Shipping container/cooler in good condition?	Yes 🗹		resent 🛛		
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🔲 🛛 Not Pr	esent 🛛	Not Shipped	
Custody seals intact on sample bottles?	Yes 🗌	No 🗌 🛛 N/A			
Chain of custody present?	Yes 🗹	No 🗖			
Chain of custody signed when relinquished and received?	Yes 🗹	No 🔲		v	
Chain of custody agrees with sample labels?	Yes 🗹	No 🗔			
Samples in proper container/bottle?	Yes 🗹	No 🗖			
Sample containers intact?	Yes 🗹	No 🗔			
Sufficient sample volume for indicated test?	Yes 🗹	🗧 No 🗖	. •	•	
All samples received within holding time?	Yes 🗹	No 🗖		1	
Water - VOA viels have zero headspace? No VOA vials subm	nitted : 🗹	Yes 🔲 🛛 🛛	No 🗌		
Water - Preservation labels on bottle and cap match?	Yes 🔲	No 🗖 👘 N//	A 🗹		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
Water - pH acceptable upon receipt?	Yes	No 🗌 🛛 N//	A 🗹 -		
Container/Temp Blank temperature?	<b>4</b> ° <	6° C Accepteble			
COMMENTS	ľ	given sufficient time to	cool.		- <u>"</u>
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Client contacted Date contacted:		Person conta	cted		
Contacted by: Regarding:					- , , , , , , , , , , , , , , , , , , ,
Comments:	r (3,255) r	i strand states	51.1	2.	<u> </u>

Corrective Action

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		Custody F		Tum-Around								ENV 'SIS							
	an a			Project Name			╡╘╸					nviron							
Address:	796	DC - 41.57	64	Basin	Dispos	ral		<b>⊿</b> 9∩∙	1 Hawł							109			
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QA/QC Packag		🗖 Level 4 (Full	Validation)	CHRIS	TINE L	VALTERS	TMB's (8021)	+ TPH (Gas only)	(Gas/Diesel)		·	PO4,S	DO				22		
				Sampler.			ΜB	ЪН (		- -		<u> </u>	80						-
EDD (Type	e)			Ondoe 304 Samplea.cm			+	BE + T	d 418.	(Method 504.1)	(Method 8260)	HAN No.0N.I	ides (	2	(NOA)		226		(V or N)
Date	Time	Sample F	Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + MTBE	BTEX + MTBE	TPH Method 8015B TPH (Method 418.1)	EDB (Metho	EDC (Metho	8310 (PNA & PAH) Anions (F,CI,NO <sub>3</sub> ,NO	8081 Pesticides (8082	8260B (VOA)	8270 (Semi-VOA)		Uranium Radium		Air Bubbles (Y
7/15/08 17	235	46392-50	composite tunder liner	2 - 402 j2-	cool							x	X			>	$\langle \times$		٦
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If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

#### Page 1 of 2

### Jones, Brad A., EMNRD

From:Jones, Brad A., EMNRDSent:Monday, June 16, 2008 10:29 AMTo:'John Volkerding'Subject:RE: Soil Sampling Analyses

John,

Based upon the laboratory analytical results provided, OCD hereby approves of your request to place the soils (from above the liner of the temporary tank area) within the facility boundary in a manner that does not promote or facilitate erosional run-off from the facility.

Pursuant to Subsection C of 19.15.9.712 NMAC, "waste listed in Subsection D, Paragraph (1) of Section 19.15.9.712 NMAC. Waste listed in Subsection D, Paragraph (1) of Section 19.15.9.712 NMAC may be disposed of at a solid waste facility without prior written authorization of the division." Plastic pit liners are an identified waste in Subsection D, Paragraph (1) of Section 19.15.9.712 NMAC. The only condition for acceptance is "so long as cleaned well."

If you have any questions regarding this matter, please do not hesitate to contact me.

Brad

Brad A. Jones Environmental Engineer Environmental Bureau NM Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505 E-mail: <u>brad.a.jones@state.nm.us</u> Office: (505) 476-3487 Fax: (505) 476-3462

From: John Volkerding [mailto:bdinc@digii.net]
Sent: Friday, June 13, 2008 3:10 PM
To: Jones, Brad A., EMNRD
Subject: Soil Sampling Analyses

Brad;

Happy Friday the 13<sup>th</sup>! Scary.

Attached are the analytical results for the soil above the liner in the temporary tank storage area. Given the low concentrations, Basin Disposal proposes to place that soil back on our property and dispose of the liner at Waste Management's landfill. We will then conduct a 5 point composite sample of the soil under the liner and analyze for the same constituents.

Thanks, John

John Volkerding. PhD, CPEA General Manager Basin Disposal, Inc. PO Box 100, Aztec, NM 87410 Office: 505-334-3013 Mobile: 505-320-2840 Fax: 505-333-3898 Plant: 505-632-8936 A good conscience is continual Christmas. Benjamin Franklin

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This inbound email has been scanned by the MessageLabs Email Security System.

44

#### Jones, Brad A., EMNRD

From: John Volkerding [bdinc@digii.net]

Sent: Friday, June 13, 2008 3:10 PM

To: Jones, Brad A., EMNRD

Subject: Soil Sampling Analyses

Attachments: Soil Samples Above Temp Liner 6-13-08.pdf

Brad;

Happy Friday the 13<sup>th</sup>! Scary.

Attached are the analytical results for the soil above the liner in the temporary tank storage area. Given the low concentrations, Basin Disposal proposes to place that soil back on our property and dispose of the liner at Waste Management's landfill. We will then conduct a 5 point composite sample of the soil under the liner and analyze for the same constituents.

Thanks, John

John Volkerding. PhD, CPEA General Manager Basin Disposal, Inc. PO Box 100, Aztec, NM 87410 Office: \$05-334-3013 Mobile: \$05-320-2840 Fax: \$05-333-3898 Plant: \$05-632-8936 A good conscience is continual Christmas, Benjamin Franklin

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### Envirotech Labs

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

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05-14-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of Custody No:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Extracted:	··· 05-13-08
Preservative:	Cool	Date Analyzed:	05-14-08
Condition:	Intact	Analysis Requested:	8015 TPH
			Det.
Parameter		Concentration (mg/Kg)	Limit (mg/Kg)
Gasoline Range (C5	- C10)	ND	0.2

ND - Parameter not detected at the stated detection limit.

**Total Petroleum Hydrocarbons** 

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

Comments: Basin Yard Tank Storage.

Analyst

haster mudaeters Review

3.8

0.2

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

PHACETICAL SOLUTIONS FOR A DEFILE TOMORROW

#### EPA Method 8015 Modified

Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

\_\_\_\_\_

Client:	QA/QC		Project #:		N/A ·
Sample ID:	05-14-08 QA/	QC	Date Reported:		05-14-08
Laboratory Number:	45407		Date Sampled:		N/A
Sample Matrix:	Methylene Chlo	oride	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		05-14-08
Condition:	N/A		Analysis Reques	ted:	TPH
	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept: Range
Gasoline Range C5 - C10	05-07-07	9.9973E+002	1.0001E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.9603E+002	9.9643E+002	0.04%	0 - 15%
Blank Conc. (mg/L - mg/K	g) Kart Sala Ali	Concentration		Detection Lin	nit'
Blank Conc. (ma/L - ma/K	a)	Concentration		<b>Detection</b> Lin	nit
Gasoline Range C5 - C10	9) (1997)	Concentration ND ND		Detection Lin 0.2 0.1	
Gasoline Range C5 - C10 Diesel Range C10 - C28		ND		0.2	
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons	) )	ND ND ND	W. Differences	0.2 0.1 0.2	27%a
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons Duplicate Conc. (mg/Kg)		ND ND ND Duplicate	N. J. N. et al. and the state of the stat	0.2 0.1 0.2 Accept Range	27%a
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons <b>Duplicate Conc. (mg/Kg)</b> Gasoline Range C5 - C10	) )	ND ND ND	% Difference 0.0% 0.0%	0.2 0.1 0.2	2744
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons <b>Duplicate Conc. (mg/Kg)</b> Gasoline Range C5 - C10 Diesel Range C10 - C28	Sample ND	ND ND ND Duplicate ND ND	0.0%	0.2 0.1 0.2 Accept: Range 0 - 30% 0 - 30%	27%a
Blank Conc. (mg/L - mg/K Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons Duplicate Conc. (mg/Kg) Gasoline Range C5 - C10 Diesel Range C10 - C28 Spike Conc. (mg/Kg) Gasoline Range C5 - C10	Sample ND ND	ND ND ND Duplicate ND	0.0% 0.0%	0.2 0.1 0.2 Accept Range 0 - 30%	9 9 9

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 45407 - 45410, 45396, and 45434

Analyst

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### TRACE METAL ANALYSIS

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05 <b>-1</b> 5-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of Custody:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Analyzed:	05-13-08
Preservative:	Cool	Date Digested:	05-13-08
Condition:	Cool & Intact	Analysis Needed:	Total Metals
	······	Det.	
	Concentration	Limit	
Parameter	(mg/Kg)	(mg/Kg)	
Arsenic	0.036	0.001	
Barium	18.2	0.001	
Cadmium	0.002	0.001	
Chromium	0.126	0.001	
Copper	0.325	0.001	
Iron	252	0.001	
Lead	0.286	0.001	
Mercury	ND	0.001	
Manganese	15.8	0.001	
Selenium	0.004	0.001	
Cilian		0.004	
Silver	ND	0.001	

ND - Parameter not detected at the stated detection limit.

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

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

Comments:

Basin Yard Tank Storage.

Analyst

/ Mistin Miceters Review

### TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

<b>•</b> #		~ ~ ~		<b>-</b>			
Client:		QA/QC		Project #:			N/A
Sample ID:		05-13-TM	QA/QC	Date Repor	ted:		05-15-08
Laboratory Number:		45396		Date Samp	led:		N/A
Sample Matrix:		Soil		Date Recei	ved:		N/A
Analysis Requested:		Trace Me	tals	Date Analy:	zed:		05-13-08
Condition:		N/A		Date Diges	ted:		05-13-08
Blank & Duplicate Conc. (mg/Kg)	Instrument 3lank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.036	0.039	6.4%	0% - 30%
Barium	ND	ND	0.001	18.2	18.2	0.0%	0% - 30%
Cadmium	ND	ND	0.001	0.002	0.003	13.6%	0% - 30%
Chromium	ND	ND	0.001	0.126	0.130	3.2%	0% - 30%
Copper	ND	ND	0.001	0.325	0.329	1.3%	0% - 30%
Iron	ND	ND	0.001	252	259	2.8%	0% - 30%
Lead	ND	ND	0.001	0.286	0.294	2.7%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Manganese	ND	ND	0.001	15.8	15.5	2.1%	0% - 30%
Selenium	ND	ND	0.001	0.004	0.003	11.1%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Zinc	ND	ND	0.001	0.923	0.958	3.8%	0% - 30%
0-11-	s	e osuse.		e di A <b>nzi</b> katik	Percent		
Spike		Spike	Sample	Spiked	コーニュー かいやめの かい たまり アイ あい		Acceptance
Conc. (mg/Kg)	and the state of a	Added		ogitipie	1		Range
Arsenic		0.250	0.036	0.279	97.6%		80% - 120%
Barium		0.500	18.2	18.8	100.4%		80% - 120%

Barium		0.500	18.2	18.8	100.4%	80% - 120%
Cadmium	,	0.250	0.002	0.254	101%	80% - 120%
Chromium		0.500	0.126	0.663	106%	80% - 120%
Copper		0.500	0.325	0.853	103%	80% - 120%
Iron		0.500	252	255	101%	80% - 120%
Lead		0.500	0.286	0.780	99.2%	80% - 120%
Mercury		0.100	ND	0.096	95.9%	80% - 120%
Manganese		0.500	15.8	16.4	101%	80% - 120%
Selenium		0.100	0.004	0.098	94.5%	80% - 120%
Silver		0.100	ND	0.100	100%	80% - 120%
Zinc		0.500	0.923	1.48	104%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References:

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

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

Comments:

QA/QC for Samples 45396.

Analyst

Ahrster Middlen Review

ANA CALENDARY STORE TO BE AND A COMOLOGICOW

### Water Analysis

Client:	Basin Disposal		Project #:	03058-0004
Sample ID:	Composite		Date Reported:	05-14-08
Laboratory Number:	45396		Date Sampled:	05-09-08
Sample Matrix:	Soil Extract		Date Received:	05-09-08
Preservative:	Cool		Date Analyzed:	05-13-08
Condition:	Cool & Intact		Chain of Custody:	4316
		Analytical		
Paramet	er	Result		Units
рН		7.82		su
Total Dissolved S	olids @ 180C	1,970		mg/L
Nitrate Nitrogen		0.5		mg/L
Cyanide		0.02		mg/L
Fluoride		0.93		mg/L
Chloride		145		mg/L
Sulfate		1,320		mg/L

Reference:

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Basin Yard Tank Storage.

Analyst

rester m Walter Review

REAL MANAGEMENT AND A CONTRACT OF THE PROPERTY OF T

## EPA Method 8270 Polynuclear Aromatic Hydrocarbons

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05-27-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of custody:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Analyzed:	05-21-08
Preservative:	Cool	Date Concentrated:	05-20-08
Condition:	Cool & Intact	Analysis Requested:	8100

Dava-makar	Concentration	Det. Limit	
Parameter	(ug/Kg)	(ug/Kg	
Naphthalene	ND	0.2	
Acenaphthylene	ND	0.2	
Acenaphthene	ND	0.2	
Fluorene	ND	0.2	
Phenanthrene	ND	0.2	
Anthracene	ND	0.2	
Fluoranthene	ND	0.2	
Pyrene	ND	0.2	
Benzo[a]anthracene	ND	0.2	
Chrysene	ND	0.2	
Benzo(b)fluoranthene	ND	0.2	
Benzo[k]fluoranthene	ND	0.2	
Benzo(a)pyrene	ND	0.2	
Indeno[1,2,3]pyrene	ND	0.2	
Dibenzo[a,h]anthracene	ND	0.2	
Benzo(g,h,i)perylene	ND	0.2	

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY	Parameter	Percent Recovery
	1-fluoronapthalene	99.7%

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments:

Basin Yard Tank Storage.

Analyst

Review Weekens



# **QUALITY ASSURANCE / QUALITY CONTROL**

# DOCUMENTATION

## EPA Method 8270 Polynuclear Aromatic Hydrocarbons Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Laboratory Blank	Date Reported:	05-27-08
Laboratory Number:	QA/QC	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-21-08
Condition:	N/A	Analysis Requested:	8100

		Det.
	Concentration	Limit
Parameter	(ug/L)	(ug/L)
Naphthalene	ND	0.2
Acenaphthylene	ND	0.2
Acenaphthene	ND	0.2
Fluorene	ND	0.2
Phenanthrene	ND	0.2
Anthracene	ND	0.2
Fluoranthene	ND	0.2
Pyrene	ND	0.2
Benzo[a]anthracene	ND	0.2
Chrysene	ND	0.2
Benzo(b)fluoranthene	ND	0.2
Benzo k fluoranthene	ND	0.2
Benzo(a)pyrene	ND	0.2
Indeno[1,2,3]pyrene	ND	0.2
Dibenzo[a,h]anthracene	ND	0.2
Benzo(g,h,i)perylene	ND	0.2

ND - Parameter not detected at the stated detection limit.

SURROGATE RECOVERY:	Parameter	Percent Recovery
	1-fluoronapthalene	99.4%

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments: QA/QC for Sample 45396.

Analyst

mistre mulaeters Review

## EPA Method 8270 Polynuclear Aromatic Hydrocarbons Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC	
Sample ID:	Matrix Duplicate	Date Reported:	05-27-08	
Laboratory Number:	45396	Date Sampled:	N/A	
Sample Matrix:	Soil	Date Received:	N/A	
Analysis Requested:	8100	Date Analyzed:	05-21-08	
Condition:	N/A			

		Duplicate		
	Sample	Sample	Det.	Percent
	Result	Result	Limit	Difference
Parameter /	(ug/Kg)	(ug/Kg)	(ug/Kg)	
Naphthalene	ND	ND	0.2	0.0%
Acenaphthylene	ND	ND	0.2	0.0%
Acenaphthene	ND	ND	0.2	0.0%
Fluorene	ND	ND	0.2	0.0%
Phenanthrene	ND	ND	0.2	0.0%
Anthracene	ND	ND	0.2	0.0%
Fluoranthene	ND	ND	0.2	0.0%
Pyrene	ND	ND	0.2	0.0%
Benzo[a]anthracene	ND	ND	0.2	0.0%
Chrysene	NÐ	ND	0.2	0.0%
Benzo(b)fluoranthene	ND	ND	0.2	0.0%
Benzo[k]fluoranthene	ND	ND	0.2	0.0%
Benzo(a)pyrene	ND	ND	0.2	0.0%
Indeno[1,2,3]pyrene	ND	ND	0.2	0.0%
Dibenzo[a,h]anthracene	ND	ND	0.2	0.0%
Benzo(g,h,i)perylene	ND	ND	0.2	0.0%

ND - Parameter not detected at the stated detection limit.

References:

Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments:

QA/QC for Sample 45396.

Review Waters Analyst

## EPA Method 8270 Polynuclear Aromatic Hydrocarbons Quality Assurance Report

Client:	QA/QC	Project #:	QA/QC
Sample ID:	Matrix Spike	Date Reported:	05-27-08
Laboratory Number:	45396	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	8100	Date Analyzed:	05-21-08
Condition:	N/A		

Parameter	Sample Result (ug/Kg)	Spike Added (ug/Kg)	Spiked Sample Result (ug/Kg)	Det. Limit (ug/Kg)	Percent Recovery	SW-846 % Rec. Accept. Range
Naphthalene	ND	50.0	49.9	0.2	99.8%	10-122
Acenaphthylene	ND	50.0	49.8	0.2	99.6%	10-139
Acenaphthene	ND	50.0	49.9	0.2	99.8%	10-124
Fluorene	ND	50.0	49.9	0.2	99.8%	10-142
Phenanthrene	ND	50.0	49.9	0.2	99.7%	10-155
Anthracene	ND	50.0	49.9	0.2	99.8%	10-126
Fluoranthene	ND	50.0	49.9	0.2	99.7%	14-123
Pyrene	ND	50.0	49.8	0.2	99.6%	10-140
Benzo[a]anthracene	ND	50.0	49.9	0.2	99.8%	10-116
Chrysene	ND	50.0	49.8	0.2	99.6%	12-135
Benzo(b)fluoranthene	ND	50.0	49.8	0.2	99.6%	10-199
Benzo[k]fluoranthene	ND	50.0	49.9	0.2	99.8%	10-150
Benzo(a)pyrene	ND	50.0	49.8	0.2	99.6%	10-159
Indeno[1,2,3]pyrene	ND	50.0	49.8	0.2	99.6%	10-128
Dibenzo[a,h]anthracene	ND	50.0	49.8	0.2	99.6%	10-110
Benzo(g,h,i)perylene	ŃD	50.0	49.9	0.2	99.8%	10-116

ND - Parameter not detected at the stated detection limit.

References: Method 8270, Semi-Volatile Organics by Capillary Column GC/MS SW-846, USEPA, September 1986.

Comments:

QA/QC for Sample 45396.

Mister muceler Review Analyst

Date: 22-May-08

CLIENT:	Envirotech	ł		Client Sample ID:	45396 - C	omposite
Lab Order:	0805250			<b>Collection Date:</b>	5/9/2008 8	3:30:00 AM
Project:	Basin Disposal			Date Received:	5/16/2008	
Lab ID:	0805250-01			Matrix:		
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8310: PAHS					Analyst: DM
Naphthalene		ND	1.2	mg/Kg	5	5/21/2008 4:27:11 PM
1-Methylnaphtha	alene	ND	1.2	mg/Kg	5	5/21/2008 4:27:11 PM
2-Methylnaphtha	alene	ND	1.2	mg/Kg	5	5/21/2008 4:27:11 PM
Acenaphthylene		ND	1.2	mg/Kg	5	5/21/2008 4:27:11 PM
Acenaphthene		ND	1.2	mg/Kg	5	5/21/2008 4:27:11 PM
Fluorene		ND	0.15	mg/Kg	5	5/21/2008 4:27:11 PM
Phénanthrene		ND	0.075	mg/Kg	5	5/21/2008 4:27:11 PM
Anthracene		ND	0.075	mg/Kg	5	5/21/2008 4:27:11 PM
Fluoranthene		ND	0.10	mg/Kg	5	5/21/2008 4:27:11 PM
Pyrene		ND	0.12	mg/Kg	5	5/21/2008 4:27:11 PM
Benz(a)anthrace	л <del>е</del>	ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
Chrysene		ND	0.055	mg/Kg	5	5/21/2008 4:27:11 PM
Benzo(b)fluorant	thene	ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
Benzo(k)fluorant	hene	ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
Benzo(a)pyrene		ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
Dibenz(a,h)anthr	acana	ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
Benzo(g,h,l)pery	lene	ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
indeno(1,2,3-cd)	pyrene	ND	0.020	mg/Kg	5	5/21/2008 4:27:11 PM
Surr: Benzo(e)	)pyrene	90.0	40.7-93.1	%REC	5	5/21/2008 4:27:11 PM
EPA METHOD 8	260B: VOLATILES					Analyst: BDI
Benzene		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Toluene		NÐ	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Ethylbenzene		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Methyl tert-butyl	ether (MTBE)	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
1,2,4-Trimethylbe	anzane	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
1,3,5-Trimethylbe	enzene	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
1,2-Dichloroetha	ne (EDC)	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
1,2-Dibromoetha	ne (EDB)	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Naphthalene		ND	0.10	mg/Kg	1	5/20/2008 7:40:20 PM
1-Methylnaphtha	lene .	ND	0.20	mg/Kg	1	5/20/2008 7:40:20 PM
2-Methylnaphthai	lene	ND	0.20	mg/Kg	1	5/20/2008 7:40:20 PM
Acetone		ND	0.75	mg/Kg	1	5/20/2008 7:40:20 PM
Bromobenzene		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Bromodichlorome	ethane	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Bromoform		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Bromomethane		ND	0.10	mg/Kg	1	5/20/2008 7:40:20 PM
2-Butanone		ND	0.60	mg/Kg	1	5/20/2008 7:40:20 PM
Carbon disulfide		ND	0.50	mg/Kg	1	5/20/2008 7:40:20 PM
Carbon tetrachlor	ide	ND	0.10	mg/Kg	1	5/20/2008 7:40:20 PM
Chlorobenzene		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM
Chlorcethane		ND	0.10	mg/Kg	1	5/20/2008 7:40:20 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

RL Reporting Limit

Page 1 of 3

Hall Environme	ntal Ana	lysis L	Laborat	ory, Inc.

Date: 22-May-08

CLIENT:	Envirotech			Client Somale II	D. 45206 (	Tampasita			
				Client Sample II		•			
Lab Order:	0805250			Collection Dat	e: 5/9/2008	8:30:00 AM			
Project:	Basin Disposal			Date Receive	d: 5/16/200	5/16/2008			
Lab ID:	0805250-01			Matri	x: SOIL	SOIL			
Analyses		Result	PQL	Qual Units	DF	Date Analyzed			
EPA METHOD	8260B: VOLATILES					Analyst: BDH			
Chloroform		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
Chloromethane	•	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
2-Chlorotoluene	9	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
4-Chlorotoluene	9	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
cis-1,2-DCE		ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
cis-1,3-Dichloro	propene	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
1,2-Dibromo-3-	chloropropane	ND	0,10	mg/Kg	1	5/20/2008 7:40:20 PM			
Dibromochloror	methane	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
Dibromometha	ne	ND	0.10	mg/Kg	1	5/20/2008 7:40:20 PM			
1,2-Dichlorober	izene	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
1,3-Dichlorober	nzene	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
1,4-Dichlorober	nzene	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			
Dichlorodifluoro	methane	ND	0.050	mg/Kg	1	5/20/2008 7:40:20 PM			

0.10

0.050

0.050

0.050

0.10

0.10

0.10

0.50

0.050

0.050

0.50

0.15

0.050

0.050

0.050

0.050

0.050

0.050

0.050

0.050

0.050

0.050

0.10

0.050

0.050

0.050

0.050

0.050

0.10

ND

0.22

ND

mg/Kg

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

Qualifiers: *	Value exceeds Maximum Contaminant Level	
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1.1-Dichloroethane

1.1-Dichloroethene

1,2-Dichloropropane 1,3-Dichloropropane

2,2-Dichloropropane

1,1-Dichloropropene

Hexachlorobutadiene

isopropyibenzene

4-isopropyltoluene

Methylene chloride

n-Bulylbenzene

n-Propylbenzene

sec-Butylbenzene

tert-Butylbenzene

trans-1,2-DCE

1,1,1,2-Tetrachloroethane

1,1,2,2-Tetrachloroethane

Tetrachioroethene (PCE)

trans-1,3-Dichloropropene 1,2,3-Trichlorobenzene

1,2,4-Trichlorobenzene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichloroethene (TCE)

Trichlorofluoromethane

1,2,3-Trichloropropane

J

Styrene

4-Methyl-2-pentanone

2-Hexanone

E Value above quantitation range

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

Analyte detected below quantitation limits MCL Ma

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

MCL Maximum Contaminant Level RL Reporting Limit

Page 2 of 3

5/20/2008 7:40:20 PM

CLIENT:	Envirotech			Clie	at Sample ID:	453 <b>96 -</b> C	Composite
Lab Order:	0805250			5/9/2008 8:30:00 AM			
Project:	Basin Disposal			D	ate Received:	5/16/2008	3
Lab ID:	0805250-01				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8260B: VOLATILES				<u></u>		Analyst: BDI
Vinyl chloride		ND	0.050		mg/Kg	1	5/20/2008 7;40:20 PM
Xylenes, Total		ND	0.10		mg/Kg	1	5/20/2008 7:40:20 PM
Surr: 1,2-Dic	hloroethane-d4	95.8	80.2-109		%REC	1	5/20/2008 7:40:20 PM
Surr: 4-Brom	ofluorobenzene	94.3	86.8-117		%REC	1	5/20/2008 7:40:20 PM
Surr: Dibrom	ofluoromethane	141	67.4-173		%REC	1	5/20/2008 7:40:20 PM
Surr: Toluene-dB		87.6	87.9-106	S	%REC	1	5/20/2008 7:40:20 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S		Spike recovery outside accepted recovery limits		Page 3 of

Envirotach

Oltanda

# **QA/QC SUMMARY REPORT**

•	irotech in Disposal						W	/ork	Order:	0805250
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPE	DLimit Qu	ual
Method: EPA Method	8310: PAHs									
Sample ID: MB-16990		MBLK			Batch	ID: 16990	Analysis Da	ate:	5/21/2008	12:27:18 PM
Naphthalene	ND	mg/Kg	0.25							
1-Methylnaphthalene	ND	mg/Kg	0.25							
2-Methyinaphthalene	ND	mg/Kg	0.25							
Acenaphthylene	ND	mg/Kg	0.25							
Aconaphihone	ND	mg/Kg	0.25							
Fluorene	ND	mg/Kg	0.030							
Phenanthrene	ND	mg/Kg	0.015							
Anthracene	ND	mg/Kg	0.015							
Fluoranthene	ND	mg/Kg	0.020							
Pyrane	ND	mg/Kg	0.025							
Benz(a)anthracene	ND	mg/Kg	0.0040							
Chrysene	NÐ	mg/Kg	0.011							
Benzo(b)fluoranthene	ND	mg/Kg	0.0040							
Benzo(k)fluoranthene	ND	mg/Kg	0.0040							
Benzo(a)pyrene	ND	mg/Kg	0.0040							
Dibenz(a,h)anthracene	ND	mg/Kg	0.0040							
Benzo(g,h,i)perylene	ND	mg/Kg	0.0040							
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.0040							
Sample ID: LCS-15990		LCS			Batch	ID: 15990	Analysis Da	te:	5/21/2008	3 1:15:18 PM
Naphthalene	0.8165	mg/Kg	0,25	81.6	30.1	90.4				
1-Methyinaphthalene	0.8232	mg/Kg	0.25	82.3	31.1	88.5				
2-Methylnaphthalene	0.8155	mg/Kg	0.25	81.6	32.2	89				
Acenaphthylene	0.7297	mg/Kg	0.25	73.0	29.5	94.2				
Acenaphthene	0.8172	mg/Kg	0.25	81.7	35.6	89.7				
Fluorene	0.07650	mg/Kg	0.030	76.5	36.9	90.7				
Phenanthrene	0.04375	mg/Kg	0.015	<b>8</b> 7.0	37.2	95.3				
Anthracene	0.03800	mg/Kg	0.015	75.5	37.4	95.4				
Fluoranthene	0.07825	mg/Kg	0.020	78.0	30.4	97.8				
Pyrene	0.08800	mg/Kg	0.025	88.0	33.3	100				
Benz(a)anthracene	0.008250	mg/Kg	0.0040	82.5	38.9	102				
Chrysene	0.04100	mg/Kg	0.011	81.5	24.2	100				
Benzo(b)fluoranthene	0.01000	mg/Kg	0.0040	80.0	35.5	102				
Benzo(k)fluoranthene	0.004750	mg/Kg	0.0040	76.0	30.4	101				-
Benzo(a)pyrene	0.005000	mg/Kg	0.0040	<b>79</b> .6	<b>29</b> .6	112				,
Dibenz(a,h)anthracene	0.01025	mg/Kg	0.0040	82.0	29.3	108				
Benzo(g,h,i)perylene	0.01060	mg/Kg	0.0040	84.0	21.3	116				
ndeno(1,2,3-cd)pyrene	0.02028	mg/Kg	0.0040	80.8	18.5	, <b>112</b>				
Sample ID: LCSD-15990		LCSD			Batch i	ID: 15990	Analysis Dal	<b>e</b> :	5/21/2008	2:03:16 PM
Vaphthalene	0.6345	mg/Kg	0.25	63.4	30.1	90.4	25.1	26.2	2	
-Methylnaphthalene	0.6575	mg/Kg	0.25	65.8	31.1	88.5	22.4	23.5		
-Methylnaphthalene	0.6460	mg/Kg	0.25	64.6	32.2	89	23.2	22.7		
Acenaphthylene	0.5864	mg/Kg	0.25	58.6	29.5	94.2	21.8	18.8		
Acenaphthene	0.6572	mg/Kg	0.25	65.7	35.6	89.7	21.7	19		
•	0.06175	mg/Kg	0.030	61.8	36.9	90.7	21.3	21.4		
luorene	0.00175	manda	0.000	<b>Q</b> 1. <b>Q</b>	00.0		41.0	a. 1.4	•	

Qualifiers:

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page 1

4

Date: 22-May-08

Client: Enviro Project: Basin	otech Disposal							Work O	rder: 0805250
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDL	imit Qual
Method: EPA Method 83	10: PAHs				 Datat				
Sample ID: LCSD-15990		LCSD			Batch		Analysis I	-	5/21/2008 2:03:16 PM
Phenanthrene	0.03550	mg/Kg	0.015	70.6	37.2	95.3	20.8	31.7	
Anthracene	0.03100	mg/Kg	0.015	61.6	37.4	95.4	20.3	18.3	R
Fluoranthene	0.06525	mg/Kg	0.020	65.1	30.4	97.8	18.1	23.8	
Pyrene	0.07100	mg/Kg	0.025	71.0	33.3	100	21.4	18.9	R
Benz(8)anthracene	0.006750	mg/Kg	0.0040	67.5	38.9	102	20.0	40	
Chrysene	0.03350	mg/Kg	0.011	66.6	24.2	100	20.1	33	
Benzo(b)fluoranthene	0.008250	mg/Kg	0.0040	66.0	35.5	102	19.2	38.2	
Benzo(k)fluoranthene	0.004000	mg/Kg	0.0040	64.0	30.4	101	17.1	26.2	
Велдо(а)ругеле	0.004000	mg/Kg	0.0040	63.7	29.6	112	22.2	35.5	
Dibenz(a,h)anthracene	0.008500	mg/Kg	0.0040	68.0	29.3	108	18.7	25.1	
Benzo(g,h,i)perylene	0.008500	mg/Kg	0.0040	68.0	21.3	116	21.1	20.5	R
Indeno(1,2,3-cd)pyrene	0.01620	mg/Kg	0.0040	64.5	18.5	112	22.3	23.1	

# **QA/QC SUMMARY REPORT**

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page 2

# **QA/QC SUMMARY REPORT**

Client: Enviro Project: Basin	tech Disposal						Work	Order: 0805250
Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit		DLimit Qual
Method: EPA Method 82	60B: VOLATILES							
Sample ID: 0805250-01a m		MSD			Batch	D: 15983	Analysis Date:	5/20/2008 8:49:58 PM
Benzene	1.193	mg/Kg	0.050	119	87.8	132	1.18 2	20
Toluene	0.9945	mg/Kg	0.050	99.4	64.9	140		20
Chlorobenzene	1.194	mg/Kg	0.050	119	77.6	128		0
1,1-Dichloroethene	1.145	mg/Kg	0.050	114	64.6	163		0
Trichloroethene (TCE)	0.6765	mg/Kg	0.050	67.7	47	115		0
Sample ID: mb-15983		MBLK			Batch	D: 16983	Analysis Date:	5/21/2008 1:12:37 PM
Benzene	ND	mg/Kg	0.050					
Toluene	ND	mg/Kg	0.050	•				
Ethylbenzene	ND	mg/Kg	0.050					
Methyl tert-butyl ether (MTBE		mg/Kg	0.050					
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050					
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050					
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050					
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050					
Naphthalene	ND	mg/Kg	0.10					
1-Methylnaphthalene	ND	mg/Kg	0.20					
2-Methylnaphthalene	ND	mg/Kg	0.20					
Acetone	ND	mg/Kg	0.75					
Bromobenzene	ND	mg/Kg	0.050					
Bromodichloromethane	ND	mg/Kg	0.050					
Bromoform	ND	mg/Kg	0.050					
Bromomethane	ND	mg/Kg	0.10					
2-Bulanone	ND	mg/Kg	0.50					
Carbon disulfide	ND	mg/Kg	0.50					
Carbon tetrachloride	ND	mg/Kg	0.10					
Chlorobenzene	ND	mg/Kg	0.050					
Chloroethane	ND	mg/Kg	0.10					
Chloroform	ND	mg/Kg	0.050					
Chloromethane	ND	mg/Kg	0.050					
2-Chiorotoluene	ND	mg/Kg	0.050					,
4-Chlorotoluene	ND	mg/Kg	0.050					
cis-1,2-DCE	ND	mg/Kg	0.050					
cis-1,3-Dichloropropene	ND	mg/Kg	0.050					
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10					-
Dibromochloromethane	ND	mg/Kg	0.050					
Dibromomethane	ND	mg/Kg	0.10					
,2-Dichlorobenzene	ND	mg/Kg	0.050					
,3-Dichlorobenzene	ND	mg/Kg	0.050					
4-Dichlorobenzene	ND	mg/Kg	0.050					
Dichlorodifluoromethane	ND	mg/Kg	0.050					
,1-Dichloroethane	ND	mg/Kg	0.10					
,1-Dichloroethene	ND	mg/Kg	0.050					
,2-Dichloropropane	ND	mg/Kg	0.050					
3-Dichloropropane	ND	mg/Kg	0.050					

#### Qualifiers:

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

Page I

Date: 22-May-08

Page 2

Client:	Envirotech							
Project:	Basin Disposal						Wor	k Order: 0805250
Analyte	Result	Units	PQL	%Rec	LowLimi	HighLimit	%RPD RF	PDLimit Qual
Method: EPA M	ethod 8260B: VOLATILES							
Sample ID: mb-18	5963	MBLK			Batch	ID: 15983	Analysis Date:	5/21/2008 1:12:37 PM
2,2-Dichloropropan	e ND	mg/Kg	0.10					
1,1-Dichloropropend	e ND'	mg/Kg	0.10					
Hexachlorobutadier	e ND	mg/Kg	0.10					
2-Hexanone	ND	mg/Kg	0.50					
Isopropylbenzene	ND	mg/Kg	0.050					
4-Isopropyltoluene	ND	mg/Kg	0.050					
4-Methyl-2-pentanol	ne ND	mg/Kg	0.50					
Methylene chloride	ND	mg/Kg	0.15					
n-Butylbenzene	ND	mg/Kg	0.050					
n-Propylbenzene	ND	mg/Kg	0.050					
sec-Bulylbenzene	ND	mg/Kg	0.050					
Styrene	ND	mg/Kg	0.050					
ert-Butylbenzene	ND	mg/Kg	0.050					
1,1,1,2-Tetrachioros	thane NO	mg/Kg	0.050					
1,1,2,2-Tetrachloroe	thane ND	mg/Kg	0.050					
Tetrachloroethene (I	PCE) ND	mg/Kg	0.050					
rans-1,2-DCE	ND	mg/Kg	0.050					
rans-1,3-Dichloropr	opene ND	mg/Kg	0.050					
I,2,3-Trichlorobenze	ne ND	mg/Kg	0.10					
1,2,4-Trichlorobenze	ne ND	mg/Kg	0.050					
1,1,1-Trichloroethan	s ND	mg/Kg	0.050					
1,1,2-Trichloroethan	e ND	mg/Kg	0.050					
Frichloroethene (TC	E) ND	mg/Kg	0.050					
richlorofluoromethe	ne ND	mg/Kg	0.050					
1,2,3-Trichloropropa	ne ND	mg/Kg	0.10					
/inyl chloride	ND	mg/Kg	0.050					
(ylenes, Total	ND	mg/Kg	0.10					
Sample ID: Ics-15	183	LCS			Batch	ID: 15983	Analysis Date:	5/20/2008 7:05:36 PM
Benzene	1.193	mg/Kg	0.050	119	87.8	132	·	
foluene	0.9658	mg/Kg	0.050	96.6	64.9	140		
Chlorobenzene	1.145	mg/Kg	0.050	30.0 1 <b>14</b>	77.6	128		
,1-Dichloroethene	1,236	mg/Kg	0.050	124	64,6	163		
richloroethene (TCI		mg/Kg	0.050	67.5	47	115		
ample ID: 080525		MS	0.000	51.0	Batch		Analysis Date:	5/20/2008 8:15:21 PM
Benzene	1.207	mg/Kg	0.050	121	87.8	132		0.10.211 W
Oluene	1.014	mg/Kg	0.050	121	64.9	132		
Chlorobenzene	1.173	mg/Kg	0.050	117	77.6	140		
,1-Dichloroethene	1.249	mg/Kg	0.050	125	64.6	163		
richloroethene (TCE		mg/Kg	0.050	71.4	47	103		

# **QA/QC SUMMARY REPORT**

Qualifiers:

J

E Value above quantitation range

H Holding times for preparation or analysis exceeded

Analyte detected below quantitation limits ND Not

R RPD outside accepted recovery limits

D Not Detected at the Reporting Limit

S Spike recovery outside accepted recovery limits

	Sample	Rec	eipt C	Checklist				
Client Name ENVIROTECH				Date Re	eceived:		5/16/2008	
Work Order Number 0805250	the second			Receiv	ved by: AT		.7	
Checklist completed by:	e C	<u> </u>	 Dete	1/6/04	le ID labels check	ked by:	Initials	-
Matrix:	Carrier name	Grey	/hound	l				
Shipping container/cooler in good condition?		Yes		• No 🗆	Not Pres	ent 🗆		
Custody seals intact on shipping container/coo	ler?	Yes	$\checkmark$	No 🗌	Not Pres	ent 🗆	Not Shipped	
Custody seals intact on sample bottles?		Yes		No 🗌	N/A	Y		
Chain of custody present?		Yes		No 🗌				
Chain of custody signed when relinquished and	received?	Yes		No 🗌				
Chain of custody agrees with sample labels?		Yes	$\checkmark$	No 🗆				
Samples In proper container/bottle?		Yes	¥	No 🗖	ļ			
Sample containers intact?		Yes		No 🗔				
Sufficient sample volume for indicated test?		Yes		No 🗌				
All samples received within holding time?		Yes		No 🗖				
Water - VOA vials have zero headspace?	No VOA vials subr	mitted		Yes 🗋	No			
Water - Preservation labels on bottle and cap n	natch?	Yes		No 🗆	N/A			
Water - pH acceptable upon receipt?		Yes		No 🗋	N/A	$\checkmark$		
Container/Temp Blank temperature?			4°	<6° C Acc				
COMMENTS:				if given sul	fficient time to co	ol.		
		• • • • • • •		=====	=====	===		
Client contacted	Date contacted:				Person contacte	əd		
Contacted by:	Regarding:				<u> </u>			
Comments:		_						
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Corrective Action								
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AL RY	Air Bubbles (Y or N)											
HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com kins NE - Albuquerque, NM 87109 345-3975 Fax 505-345-4107 345-3975 Fax 505-345-4107												alytical report.
ENVIRONME YSIS LABOR allenvironmental.com - Albuquerque, NM 87109 Fax 505-345-4107 Analysis Request	(AOV-ime2) 0728				<b> </b>	. 		· 	. 		1 20	the an
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sh posal	MALTEES TESE EDO	OBDS750-1									11.45 5/1968	ed to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report
	Type										Received by:	locredited laboratories
Project #	Project Manager:	1-405									2	ortracted to other a
red the cord	email or Farth: cwarters cervinotech- Inc. Con Proj CAVOC Package: Candard Cevel 4 (Full Validation) Candard Cevel 4 (Full Validation) Com Candard Candard Candard Com Candard Candard Candard Candard Com Candard Candard	453940- CONDOSITIS									Relinquished by: KeeLLAN Age	If necessary, samples submitted to Hall Environmental may be subcontract
Client ENVIRATECH Address: 579, 5 Phone # 505 632	ackage: ackage: ard Type) D'ype)	<u>キ</u> ー									Time: Reli to: 45	cessary, samples sub
Client:	email or Faeder: o QAVQC Package: Candard Cather Date Tir Date Tir	-1									S/15/0 % Date:	H nec

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# EPA METHOD 8270 TCLP PHENOLS

Client:	Basin Disposal	Project #:	03058-0004
Sample ID:	Composite	Date Reported:	05-27-08
Laboratory Number:	45396	Date Sampled:	05-09-08
Chain of Custody:	4361	Date Received:	05-09-08
Sample Matrix:	Soil	Date Extracted:	05-14-08
Preservative:	Cool	Date Analyzed:	05-20-08
Condition:	Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.020	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Rec	coveries:	Parameter	Percent Recovery
		2-Fluorophenol 2,4,6-Tribromophenol	99.0% 99.0%
References:		1, Toxicity Characteristic Leaching Procedure <sup>-</sup> 846, USEPA, July 1992.	Test Methods for Evaluating Solid
		), Separatory Funnel Liquid-Liquid Extraction, 846, USEPA, July 1992.	Test Methods for Evaluating Solid
	Method 8040	), Phenols, Test Methods for Evaluating Solid	Waste, SW-846, USEPA, Sept. 1986.
Note:	Regulatory L	imits based on 40 CFR part 261 subpart C se	ction 261.24, July 1, 1992.
Comments:	Basin Yar	d Tank Storage.	

Analyst

Mister Malters Review

# Envirotech Labs

# EPA METHOD 8270 TCLP PHENOLS Quality Assurance Report

Client:	QAVQC	Project #:	N/A	
Sample ID:	05-20-TCA QA/QC	Date Reported:	05-27-08	
Laboratory Number:	45396	Date Sampled:	N/A	
Sample Matrix:	2-Propanol	Date Received:	N/A	
Preservative:	N/A	Date Analyzed:	05-20-08	·
Condition:	N/A	Analysis Requested:	TCLP	

Blanks & Duplicate Conc (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	Percent Diff.
conc (mg/L)	Dialik					
o-Cresol	ND	ND	0.020	ND	ND	0.0%
p,m-Cresol	ND	ND	0.020	ND	ND	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	ND	ND	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	ND	ND	0.0%
Pentachlorophenol	ND	ND	0.020	ND	ND	0.0%

ND - Parameter not detected at the stated detection limit.

References:

Method 1311, Toxicity Characteristic Leaching Procedure Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.
Method 8041, Phenols, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1986.

Comments:

QA/QC for Sample 45396.

Analyst

Salter Review

CLIENT:	Envirotech			<b>Client Sample</b>	ID: 45396-Co	omposite
Lab Order:	0805177			Collection Da	ate: 5/9/2008	9:00:00 AM
Project:	Basin Disposal			Date Receiv	ed: 5/13/200	8
Lab ID:	0805177-01			Mat	rix: SOIL	
Analyses		Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD	8082: PCB'S	, · · · · · · · · · · · · · · · · · · ·		··· <u>des</u>	······	Analyst: JMP
Aroclor 1016		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Aroctor 1221		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1232		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1242		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1248		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1254		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Aroclor 1260		ND	0.020	mg/Kg	1	5/21/2008 4:30:24 PM
Surr: Decach	lorobiphenyi	42.4	15.8-133	%REC	1	5/21/2008 4:30:24 PM

Qualifiers:

Value exceeds Maximum Contaminant Level

- E Value above quantitation range
- J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank

Date: 09-Jun-08

- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level

RL Reporting Limit

Page 1 of 1

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ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602 Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

#### LABORATORY ANALYTICAL REPORT

Client:Hall EnvironmentalProject:0805177Lab ID:C08050691-001Client Sample ID:45396-Composite

 Report Date:
 06/08/08

 Collection Date:
 05/09/08 09:00

 DateReceived:
 05/15/08

 Matrix:
 Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - TOTAL Uranium	1.6	mg/kg-dry		0.5		SW6020	05/31/08 04:26 / ts
RADIONUCLIDES - TOTAL Radium 226 Radium 226 precision (±) Radium 226 MDC Radium 228 Radium 228 precision (±) Radium 228 MDC	1.6 0.2 0.1 0.4 0.4 0.6	pCl/g-dry pCl/g-dry pCl/g-dry pCl/g-dry pCl/g-dry pCl/g-dry	U			E903.0 E903.0 E903.0 RA-05 RA-05 RA-05	05/04/08 11:09 / trs 05/04/08 11:09 / trs 05/04/08 11:09 / trs 05/30/08 09:57 / pij 05/30/08 09:57 / pij 05/30/08 09:57 / pij

 Report
 RL - Analyte reporting limit.

 Definitions:
 QCL - Quality control limit.

 MDC - Minimum detectable concentration

MCL - Maximum contaminant level. ND - Not detected at the reporting limit. U - Not detected at minimum detectable concentration



Client: Hall Environmental

ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602 Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

# **QA/QC Summary Report**

Project: 08	05177						Work	Order	: C080506	91
Analyte	······································	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Quai
Method:	E903.0								Bat	ch: 18648
Sample iD:	LC5-18648	Laboratory C	ontrol Sample			Run: BERT	HOLD 770_0805	27B	06/04	/08 11:08
Radium 226		0.014	pCI/L		97	70	130			
Sample iD:	MB-18648	Method Blan	k			Run: BERT	HOLD 770_0805	278	06/04	/08 11:09
Radium 226		-0.0010	pCI/L							U
Sample ID:	C08050691-001BMS	Sample Matr	lx Spike			Run: BERT	HOLD 770_0805	27B	06/04	/08 11:08
Radium 226			pCi/g-dry		67	70	130			S
<ul> <li>Spike response</li> <li>Spike response</li> </ul>	nse is outside of the acceptanc . The batch is approved.	a range for this a	nalysis. Since the LC	S and the R	PD for the	MS MSD pair	are acceptable, the	respons	se is considered	d tô bê -
Sample ID:	C08050891-001BMSD	Sample Matr	ix Splke Duplicate			Run: BERT	HOLD 770_0805	278	08/04	/08 11:09
Radium 226		3.4	pCVL		48	70	130	18	24.3	S
	nse is outside of the acceptanc . The batch is approved.	e range for this a	nalysis. Since the LC	S and the R	PD for the	MS MSD pair	are acceptable, the	respons	e is considered	d to be
Method: I	RA-05								Bate	ch: 18648
Sample ID:	LCS-18648	Laboratory C	ontrol Sample		~	Run: TENN	ELEC-3_080527	A	05/30	08 09:57
Radium 228		-	pCi/g-dry		113	70	130			
						The sector of the sector			05/04	109 00:57
Sample ID:	MB-18648	Method Blani	-			RUD: LENN	ELEC-3_080527	A	05/31	/08 09:57 U
Radium 228	,	0.0002	pCl/g-dry							0
Sample ID:	C08050691-001BMS	Sample Matri	x Spike			Run: TENN	ELEC-3_080627/	Ą	05/30	/08 09:57
Radium 228		5.3	pCl/g_dry		102	70	130			
Sampia ID:	C08050691-001BMSD	Sample Matri	x Spike Duplicate			Run: TENN	ELEC-3_080527/	٩	05/30	/08 09:57
Redium 228		4.6	pCl/g-dry		88	70	130	14	31.1	
Method: S	W6020								Bate	ch: 18660
Sample ID:	MR-18660	Method Blani	¢			Run: ICPM	S2-C_080530A		05/31	/08 04:18
Jranium			mg/kg-dry	1E-08			-			
Semple ID:	002 19640	Laboratory C	ontrol Sample			Run: ICPM	S2-C_080530A		05/31	/08 04:22
Jranium	CC33-1000V	•	mg/kg-dry	0.50	119	80	120			
									05-04	00.05.40
ample ID:	C08050805-014AMS3	Sample Matri		0.50			52-C_080530A		05/31	/08 05:12 A
Iranium		702	mg/kg-dry	0.50		75	125			А
ample ID:	C08050805-014AMSD3	Sample Matri	x Spike Duplicate			Run: ICPM	S2-C_080530A		05/31	/08 05:16

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated. S - Spike recovery outside of advisory limits.

Report Date: 08/08/08

ND - Not detected at the reporting limit. U - Not detected at minimum detectable concentration .

Client: Project:	Envirotech Basin Disposal						Wo	rk Order: 0805177
Analyte	Resul	t Units	PQL	%Rec	LowLimit	HighLimit	%RPD F	RPDLimit Qual
Method: EPA Me	thod 8082: PCB's							
Sample ID: MB-15	982	MBLK			Batch II	D: 15982	Analysis Date	: 5/21/2008 11:34:50 AM
Araclor 1016	ND	mg/Kg	0.020					
Aroclor 1221	ND	mg/Kg	0.020					
Araclor 1232	ND	mg/Kg	0.020					
Aroclor 1242	ND	mg/Kg	0.020					
Aroclor 1248	ND	mg/Kg	0.020					
Arocior 1254	ND	mg/Kg	0.020					
Aroclor 1260	ND	mg/Kg	0.020					
Sample ID: LCS-18	5982	LCS			Batch ID	D: 15982	Analysis Date:	5/21/2008 12:25:38 PM
Aroclor 1260	0.0534	0 mg/Kg	0.020	42.7	23.7	105		
Sample ID: LCSD-	15982	LCSD			Batch IC	): <b>15982</b>	Analysis Date:	5/21/2008 1:14:12 PM
Arocior 1260	0.0559	0 mg/Kg	0.020	44.7	23.7	105	4.57	20

# QA/QC SUMMARY REPORT

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
  - Spike recovery outside accepted recovery limits

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Page 1

Client Name ENVIROTECH Work Order Number 0805177 Checklist completed by: spnaure Matrix: Carrier name Carrier name Not Present Not Shipped No Chalin of custody agrees with sample labels? Yes No No No No No No No No No No
Checklist completed by:       Signature         Matrix:       Carrier name         Shipping container/cooler in good condition?       Yes         Vestory seals intact on shipping container/cooler?       Yes         Vestory seals intact on shipping container/cooler?       Yes         No       Not Present         Chain of custody seals intact on sample bottles?       Yes         Yes       No         Chain of custody signed when relinquished and received?       Yes         Yes       No         Chain of custody agrees with sample lebels?       Yes         Samples in proper container/bottle?       Yes         Sufficient sample volume for indicated test?       Yes         Ves       No         Sufficient sample volume for indicated test?       Yes         Water - VOA vials have zero headspace?       No VOA vials submitted         Water - pH acceptable upon receipt?       Yes         Water - pH acceptable upon receipt?       Yes         No       N/A         Water - PH acceptable upon receipt?       Yes         Oraliner/Temp Blank temperature?       6°         C6°       C Acceptable
Checklist completed by:       Image: Im
Checking completed by   Signature     Matrix:     Carrier name   Greyhound     Shipping container/cooler in good condition?   Yes   Qustody seals intact on shipping container/cooler?   Yes   No   Not Present   Custody seals intact on sample bottles?   Yes   Yes   No   <
Shipping container/cooler in good condition? Yes V No Not Present   Custody seals intact on shipping container/cooler? Yes V No Not Present Not Shipped   Custody seals intact on sample bottles? Yes No N/A V   Chain of custody present? Yes V No N/A V   Chain of custody signed when relinquished and received? Yes V No    Chain of custody agrees with sample labels? Yes V No    Samples in proper container/bottle? Yes V No    Sufficient sample volume for indicated test? Yes V No    Alt samples, received within holding time? Yes Vo No    Water - VOA vials have zero headspace? No VOA vials submitted Yes No N/A   Water - pH acceptable upon receipt? Yes No N/A V   Container/Temp Blank temperature? 6° <6° C Acceptable If given sufficient time to cool.
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Custody seals intact on sample bottles? Yes   Chain of custody present? Yes   Chain of custody signed when relinquished and received? Yes   Ves No   Chain of custody agrees with sample labels? Yes   Chain of custody agrees with sample labels? Yes   Samples in proper container/bottle? Yes   Ves No   Sample containers intact? Yes   Sufficient sample volume for indicated test? Yes   Vater - VOA vials have zero headspace? No VOA vials submitted   Vater - Preservation labels on bottle and cap match? Yes   Ves No   No N/A   Vater - pH acceptable upon receipt? Yes   Container/Temp Blank temperature? 6°
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Contacted by: Regarding:
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comments: Lorreet time for sample is 9.00 am as per CW. 5/13

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Chain-of-Custody Record	Client: ENVIROTECH		Address: 5796	HARMINGTEN , NH	Phone #: 505	email or tast: cwalters & enviroted inc. and Project Manager:	QA/QC Package:	er					-	+			_		+	+	+	+	-				1	Il necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.
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New Mexico Energy, Minerals and Natural Resources Department

### Bill Richardson Governor

Joanna Prukop Cabinet Secretary Reese Fullerton Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



April 1, 2008

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

### RE: Basin Disposal, Inc. – Permit 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 request, dated March 28, 2008 and the revisions provided March 31, 2008, to temporary place twenty-five (25) 400 barrel tanks within a lined and bermed area for the temporary storage of produced water. The request has been submitted under the emergency exception provision of Subsection B of Section 19 of 19.15.36 NMAC. The emergency exception is the temporary increase of storage capacity in order to handle the backlog of produced removal due to poor weather conditions and the compliance of operators with the Bureau of Land Management's regulations regarding use of roads during inclement weather. This modification request is hereby approved under the following conditions and understandings:

- 1. Basin Disposal, Inc. shall submit an additional \$15,000 of financial assurance for OCD's review and approval prior to initiating any work or activities associated with this approval.
- 2. Basin Disposal, Inc. shall place no more than twenty-five (25) 400 bbls closed top tanks within the lined bermed area, as identified in the March 28, 2008 request.
- 3. Basin Disposal, Inc. shall construct a temporary storage area with a footprint no greater than 150' by 150', which shall be lined with a 20-mil LLDPE/HDPE or equivalent liner and have a design capacity of 12,000 barrels pursuant to the March 28, 2008 submittal and March 31, 2008 revisions.
- 4. Prior to the installation of the 25 tanks, Basin Disposal, Inc. shall inspect the integrity of the existing liner and replace or repair any comprised lined areas.
- 5. Basin Disposal, Inc. shall construct the temporary storage area in manner to control stormwater run-on and control stormwater run-off.
- 6. Basin Disposal, Inc. shall install the tanks in a manner to protect migratory birds, for tanks exceeding eight feet in diameter.

Mr. Volkerding Permit NM1-005 April 1, 2008 Page 2 of 2

- 7. Basin Disposal, Inc. shall construct and install a 20-mil LLDPE/HDPE or equivalent lined and bermed area to connect and install a 4" hose to transfer produced water from the evaporation pond to the temporary tanks and from the tanks back into the evaporation pond pursuant to the March 28, 2008 submittal and March 31, 2008 revisions.
- 8. Basin Disposal, Inc. shall inspect the tanks, temporary storage area, and transfer hose daily for integrity, spills, and releases pursuant to the March 28, 2008 submittal and March 31, 2008 revisions.
- 9. Basin Disposal, Inc. shall operate the temporary storage area and manage all waste associated with the temporary modification pursuant to the March 28, 2008 submittal, the revisions provided March 31, 2008, and 19.15.36 NMAC.
- Basin Disposal, Inc. shall comply with the revisions and additions provided in the March 28, 2008 submittal and March 31, 2008 revisions to the Oil Field Waste Management SOP, H2S Prevention SOP, Closure Plan, Contingency Plan, and the Spill Prevention Control and Countermeasures Policy.
- 11. Basin Disposal, Inc. shall discontinue the use of the temporary storage area, remove the temporary tanks, and initiate the closure plan within six months of the effective date of this approval.
- 12. Basin Disposal, Inc. shall complete the closure of the area impacted from the activities associated with the temporary modification pursuant the Subsection E of 19.15.36 NMAC and the closure plan of the March 28, 2008 submittal and the additional revisions provided March 31, 2008. Such closure activities as the testing and removal of soils above the liner, the removal and disposal of the liner, and the testing of the soils beneath the liner shall be completed within nine months of the effective date of this approval.
- 13. Basin Disposal, Inc. shall demonstrate that the area impacted from the activities associated with the temporary modification is restored, that no contamination is present, and that the closure is complete to OCD's satisfaction. Upon review, confirmation, and approval of closure, OCD will release the financial assurance associated with the temporary modification.

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 <u>brad.a.jones@state.nm.us</u>.

Sincerely.

Wayne Price Environmental Bureau Chief

LWP/baj cc: OCD District III Office, Aztec

# Jones, Brad A., EMNRD

From:	John Volkerding [bdinc@digii.net]
Sent:	Monday, March 31, 2008 6:09 PM
To:	Jones, Brad A., EMNRD

Subject: Temporary Tank Storage Area Liner

Brad; Thanks for asking about the liner specifications. I had to do some digging to actually find the invoice (since it was 2006, it was archived) but after finding what was purchased, I have listed below the specifications. If you need anything else, please feel free to ask. John

and the state of the state

# **30 MIL XR-5® SPECIFICATIONS**

Property	Test Method	Specified Value
Thickness (mils,min)	ASTM D751 (optical Method	30
Weight (oz./s.y.,min.)	ASTM D751	28
Breaking Strength (Ibs.,min.)	ASTM D751 (Method A)	550
Tear Strength (lbs.,min)	ASTM D751 (Method B)	125
Low Temperature (deg.F.)	ASTM D2136 (1/8"Mandrel, 4hrs.)	-30
Dimensional Stability (% change,max.)	ASTM D1204 (212 deg.F,1 hr.)	1
Hydrostatic Resistance (psi,min)	ASTM D751 (Method A)	800
Ply Adhesion	ASTM D413	15

(lbs./in. width,min.)	(Machine Method)	
Water Absorption (%gain,max.) 1.70 deg.F,7 days 2.212 deg. F. 7 days	ASTM D471	2.5 14
Blocking Resistance (rating,max.)	ASTM D751	2
Abrasion Resistance (max.cycles before exposure,50 mg/100 cycles max. weight loss.)	Ftms 191A (method 5306,H-18 wheel,1000 gm. Load)	2000
Weathering Resistance (hrs.)	Carbon-Arc (atlas weather-o-meter)	8000
Wicking (in.,max)	Shelter-Rite Procedure	1/8
Puncture Resistance (Ibs.,min)	ASTM D4833	250
Coefficient of Thermal Expansion/Contraction (in./in. deg. F, max)	ASTM D696	8 x 10 -6
Seam Requirements		
Bonded Seam Strength (Ibs./in. width, min)	ASTM D751 (NSF 54 Modified)	440
Peel Adhesion (Ibs./in. Width, min)	ASTM D413 (NSF 54 Modified)	20

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John Volkerding. CPEA, PhD General Manager

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 Basin Disposal, Inc.

 PO Box 100, Aztec, NM 87410

 Office:
 505-334-3013

 Mobile:
 505-320-2840

 Fax:
 505-333-3898

 Plant:
 505-632-8936

 I didn't fail the test, I just found 100 ways to do it wrong. Benjamin Franklin

# Jones, Brad A., EMNRD

- From: John Volkerding [bdinc@digii.net]
- Sent: Tuesday, March 25, 2008 5:12 PM
- To: 'John Volkerding'; Jones, Brad A., EMNRD; Price, Wayne, EMNRD

Subject: 3/24/07 Meeting Minutes

### Wayne and Brad;

I appreciate your taking the time to chat about our request for temporary tanks and our plans for the major modification. Please know I am available anytime to come to Santa Fe. Below is a summary of the meeting based on my notes and a follow up phone conversation with Brad Jones on 3/25.

### Temporary Tanks

- 1. Basin needs to submit an additional \$15,000 financial assurance. [Note: Basin likely will have this completed tomorrow, <u>3/26</u>]
- 2. Basin needs to submit the request to set the tanks as an Exception to 19.15.36.19.NMAC Paragraph B as a temporary increase in capacity
- 3. The items in 19.15.36.8 NMAC Paragraph C need to be addressed to include:
  - a. Paragraph 4: Description and diagram of facility and changes (include runon/runoff measures)
  - b. Paragraph 6: Plan for management of oil field wastes (how will water be placed in the tanks, removed from the tanks, and any additional liners needed for those processes)
  - c. Paragraph 7: Inspection and maintenance plan
  - d. Paragraph 8: H2S Prevention
  - e. Paragraph 9: Closure plan should include description of sampling methodology (locations, analyses Analyses discussed were TPH, DRO/GRO, BTEX, Chloride), schedule for sampling, schedule for removing tanks, schedule for removing liner, disposal of the liner, schedule for submittal of analytical results to OCD, disposition of the soil above the liner and below the liner (will depend on analytical results), no need to backfill the area
  - f. Paragraph 10: Contingency plan, make sure to include 116 rule and discuss management of any free liquids
  - g. Paragraph 11: Run on/off of water: Make sure to describe measures to keep water from entering the area of the tanks to include type(s) of control along with dimensions, etc..
  - h. Paragraph 14: Best Management Plan to include the transfer of liquid to and from the tanks, how will water in tanks ultimately be disposed
- 4. OCD will review and if acceptable and complete will approve ASAP.

### Major Mod

- 1. After looking at the submittal and drawings, OCD asked if the consultant (Cheney, Walters, Echols) had experience doing this type of engineering design since the drawings clearly lacked many specifics and did not meet the requirements of 19.15.36.17, to include, (but not an exhaustive list):
  - a. 2% slope in construction not complied with
  - b. 2<sup>nd</sup> liner not shown
  - c. Trench around pond not shown
  - d. Exact dimensions of pond not clear
  - e. Why the large gap between primary liner and leak detection system
  - f. What are the specifics on the liner (thickness, material) and layers (thickness,, material)
  - g. Is there a means for pulling any condensate/leaking water? If so, not clear

[Note: After speaking with Chuck Akley at NMED's Solid Waste, Basin is pursuing using an engineering firm with landfill construction experience]

- 2. Need to include Run On and Run Off plans
- 3. Drawing seems to show an easement issue. Is that accurate? If so, should location of pond be moved west and/or pond made longer but skinnier?
- 4. Boring plan is hard for OCD to review without knowing the deepest point of the pond(s), which based on 1 above was unclear. For sake of discussion a few assumptions were made.
  - a. Need to drill at least 50 feet below deepest point and should drill deeper to provide a cushion in the depth
  - b. Looking for shallowest protectable water
  - c. May need more than one boring
  - d. Brad asked Roger to submit the plan for review when complete to make sure all issues are addressed.
  - e. OCD wants to observe the coring/drilling
- 5. Basin should investigate if a federal Stormwater protection plan for construction activities. [NOTE: Per <u>http://cfpub.epa.gov/npdes/stormwater/swppp.cfm</u> The Clean Water Act and associated federal regulations (Title 40 of the *Code of Federal Regulations* [CFR] 123.25(a)(9), 122.26(a), 122.26(b)(14)(x) and 122.26(b)(15)) require nearly all construction site operators engaged in clearing, grading, and excavating activities that disturb one acre or more, including smaller sites in a larger common plan of development or sale, to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit for their stormwater discharges] I will chat with Marcy Leavitt about NMED's general construction permit and go from there.
- 6. Closure plan needs to be based on a 3<sup>rd</sup> party doing the work and include all required analytical requirements.
- 7. In conducting background samples, Basin should cover all the closure analytical constituents.
- 8. It was requested the Basin submit a letter stating that due to the changes in scope and design, the application dated 9/24/07 should be disregarded and a new application will be submitted.

I will try and have the application for the tanks by Thursday afternoon. Again, I appreciate the meeting and think we were able to cover a large territory of issues effectively.

Thanks, John

### John Volkerding

 General Manager

 Basin Disposal, Inc.

 PO Box 100, Aztec, NM 87410

 Office:
 505-334-3013

 Mobile:
 505-320-2840

 Fax:
 505-333-3898

 Plant:
 505-632-8936

# Jones, Brad A., EMNRD

From: John Volkerding [bdinc@digii.net] Sent: Monday, March 24, 2008 10:06 PM To: Jones, Brad A., EMNRD; Price, Wayne, EMNRD Subject: 3/24/07 Meeting "Minutes"

## Wavne and Brad:

I appreciate your taking the time to chat about our request for temporary tanks and our plans for the major modification. Please know I am available anytime to come to Santa Fe. To help make sure we all came away from the meeting with the same information, I thought I would summarize what I heard and if I left anything off or misunderstood an issue, please let me know.

## **Temporary Tanks**

- emporary Tanks 1. Basin needs to submit an additional \$15,000 financial assurance before the approval will be granted.
- 2. Basin needs to submit the request to set the tanks as an Exception to 19.15.36.19.NMAC Paragraph & B
- 3. The items in 19.15.36.8 NMAC Paragraph C need to be addressed to include:
  - a. Schedule for activities (tanks, set, tanks removed liner, removed, soil sampled)
  - b. Closure plan should include description of sampling methodology (locations, analyses). Analyses discussed were TPH, DRO/GRO, BTEX, Chloride 19.15-34.8 (4)/687/8/(9)( (1)/14)
  - c. Run on plan to keep water from entering the area
  - d. Contingency plan for spills, leaking tanks
- 4. OCD will review and if acceptable and complete will approve ASAP.

## Maior Mod

- 1. OCD asked if the consultant (Cheney, Walters, Echols) had experience doing this type of engineering design since the drawings clearly lacked many specifics Do not comply with M.15. 36.17 a. 2% slope in construction not complied with design specifications of

  - b. 2<sup>nd</sup> liner not shown
  - c. Trench around pond not shown
  - d. Exact dimensions of pond not clear
  - e. Why the large gap between primary liner and leak detection system
  - f. What are the specifics on the liner (thickness, material) and layers (thickness, material)
  - g. Is there a means for pulling any condensate/leaking water? If so, not clear
- 2. Need to include Run On and Run Off plans
- 3. Drawing seems to show an easement issue. Is that accurate? If so, should location of pond be moved west and/or pond made longer but skinnier?
- 4. Boring plan is hard for OCD to review or approve without knowing the deepest point of the pond(s), which based on 1 above was unclear. For sake of discussion a few assumptions were made.
  - a. Need to drill at least 50 feet below deepest point and should drill deeper to provide a cushion in the depth
  - b. Looking for water perched water or other that is "protectable"
  - c. May need more than one boring
  - d. Brad asked Roger to submit the plan for review when complete.
  - e. OCD wants to observe the coring/drilling

- 5. Basin should investigate if a federal Stormwater protection plan for construction activities. [NOTE: Per <u>http://cfpub.epa.gov/npdes/stormwater/swppp.cfm</u> The Clean Water Act and associated federal regulations (Title 40 of the *Code of Federal Regulations* [CFR] 123.25(a)(9), 122.26(a), 122.26(b)(14)(x) and 122.26(b)(15)) require nearly all construction site operators engaged in clearing, grading, and excavating activities that **disturb one acre or more, including smaller sites in a larger common plan of development or sale**, to obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit for their stormwater discharges]
- 6. I will chat with Marcy Leavitt about NMED's general construction permit and go from there.
- 7. Closure plan needs to be based on a 3<sup>rd</sup> party doing the work
- 8. In conducting background samples, Basin should cover all the closure analytical constituents.
- 9. It was requested the Basin submit a letter stating that due to the changes in scope and design, the application dated 9/24/07 should be disregarded and a new application will be submitted.

If there are any significant issues that I missed or have any of the above incorrect, please let me know. I will try and have the Exception application tomorrow and will make sure my bosses get the financial assurance requirement met. Again, I appreciate the meeting today and think we were able to cover a large territory of issues effectively.

John

### John Volkerding

General Manager Basin Disposal, Inc. PO Box 100, Aztec, NM 87410 Office: 505-334-3013 Mobile: 505-320-2840 Fax: 505-333-3898 Plant: 505-632-8936

### John Volkerding

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From: John Volkerding [bdinc@digii.net]

Sent: Friday, March 28, 2008 11:10 AM

To: OCD Santa Fe- Wayne Price (wayne.price@state.nm.us); OCD Santa Fe- Brad Jones (brad.a.jones@state.nm.us)

Subject: Cash Bond for Waste Management Facilities: \$15,000

Attachments: Temp Tanks 3-28-08 - Financial Ass Ltr.pdf; Tank 15K Financial Assurance.pdf

Wayne and Brad;

Attached please find a pdf format of Cash Bond for Waste Management Facilities in the amount of \$15,000. The original will be placed in the US Mail today.

Have a good weekend, John

 John Volkerding

 General Manager

 Basin Disposal, Inc.

 PO Box 100, Aztec, NM 87410

 Office:
 505-333-3013

 Mobile:
 505-320-2840

 Fax:
 505-632-8936

3/28/2008 11:34 AM FROM: Fax Basin Disposal TO: , 9, 1-505- 476-3462 PAGE: 002 OF 005



BASIN DISPOSAL. INC.

SPECALLING A DEFENSION OF PRESENCES MATER AND PRESENCE AND PULLENT TE - AZTEN AND REPORT FORD - PROVE JAR 1999 1999

28 March 2008

7004 2510 0005 9631 0836

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

RE: \$15,000 Financial Assurance for Exception under 19.15.36.19 B NMAC For 25 Water Storage Tanks

Dear Mr. Jones;

Attached please find a pdf format of Cash Bond for Waste Management Facilities in the amount of \$15,000. The original will be placed in the US Mail today.

If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

John Volkerding General Manager

Encl: Cash Bond for Waste Management Facilities

Cc: Brandon Powell, Aztec OCD Office, 1000 Rio Brazos, Aztec, NM 87410

Star Course

3/27/2008 2:59 PM FROM: Fax Basir, Disposal TO: , 9 , 326-0955 PAGE: 001 OF 003

Page 1 of 3

01/04

#### Energy, Minerals and Natural Resources Department Oil Conservation Division

#### Cash Bond For Waste Management Facilities (File with Oil Conservation Division, 1220 South Saint Francis, Santa Fe, New Mexico 87505)

#### KNOW ALL MEN BY THESE PRESENTS:

 That
 Basin Disposal Inc.
 (an individual, partnership, or a corporation organized in the State of New Mexico, with its principal office in the City of Aztec\_\_\_\_\_\_\_, State of New Mexico \_\_\_\_\_\_\_ and authorized to do business in the State of New Mexico), as PRINCIPAL is firmly bound unto the State of New Mexico, for the use and benefit of the Oil Conservation Division of the Energy, Minerals and Natural Resources Department (DIVISION) in the sum of Fifteen Thousand Dollars.

The conditions of this obligation are such that:

The PRINCIPAL has heretofore or may hereafter enter into the collection, disposal, evaporation, remediation, reclamation, treatment or storage of produced water, drilling fluids, drill cuttings, completion fluids, contaminated soils, BS&W, tank bottoms, waste oil or other oil field related waste in Section 3. Township  $2^{2}N$ , Range  $M_{22}$ , NMPM,  $5^{2}A$ ,  $5^{2}A$ , County, New Mexico.

NOW, THEREFORE, this \$15,000 bond is conditioned upon substantial compliance with all applicable statutes of the State of New Mexico and all rules and orders of the DIVISION and the Oil Conservation Commission, and upon clean-up of the facility site to standards of the DIVISION; otherwise the bond is to be forfeited to the Division.

The PRINCIPAL has deposited funds on behalf of the DIVISION in the amount of \$15,000\_00( <u>Fifteen Thousand</u> dollars) in the manner indicated on page 2 of this instrument, Assignment of Cash Collateral Deposit, to secure this bond. The PRINCIPAL pledges the funds as a guarantee that it, its executors, assigns, heirs and administrators will abide by the Statutes of the State of New Mexico and the rules and orders of the DIVISION in operating the waste management facility described herein, and that it will properly reclaim the facility site upon cessation of operations. If the PRINCIPAL does not properly reclaim and restore the facility site, and otherwise abide by the rules and orders of the DIVISION, this bond shall be forfeited in full and such funds as necessary applied to the cost of reclaiming the facility site. If the amount of the bond is less than the actual cost incurred by the DIVISION in reclaiming the facility site, the DIVISION may institute legal action against the PRINCIPAL to recover any amounts expended over and above the amount of the bond.

NOW THEREFORE, if the above PRINCIPAL or its successors, assigns, heirs, administrators or any of them shall properly reclaim and restore the above-described facility site upon cessation of operations and otherwise abide by the rules and orders of the Division, then therefore, this obligation shall be null and void and the principal sum hereof shall be paid to the PRINCIPAL, or its successors, heirs, or administrator, otherwise it shall remain in full force and effect. A STATE OF STATES

3/27/2008 2:59 PM FROM: Fax Bazin Disposal TO: , 9 , 326-0955 PAGE: 002 OF 003

Page 2 of 3

01/04

#### Assignment of Cash Collateral Deposit For Bond for Waste Management Facility

Pursuant to Rule 711 of the Rules of the Oil Conservation Division, or successor provisions,

							, (her	rinafter "Prin	cipal"), of
						_ (addre	ss) has	deposited .	with the
Citizens	Bank		(nam	ne of the fi	nancial inst	titution, v	vhich mus	t be a federal	ly insured
bank or	savings	institution	within	the	state	oſ	New	Mexico	) of
(address) (he	reinafter "Finar	ncial Institution")	, the sum of	f <u>Fifte</u>	en Thou	sand			(\$
		ate of Deposit of						The Princip	al hereby
assigns and ca	onveys all right	, title and interes	at in the dep	osited fur	nds to the l	Financial	Institution	n in trust fo	r the Oil
Conservation	Division of the	Energy, Minerals	and Natura	Resource	s Departm	ent (here	inafter "D	ivision") or	successor
agency of the	State of New M	Aexico. The Prin	cipal and th	e Financia	l Institutio	n agree tl	hat as to th	he deposited	l funds:

The funds deposited pursuant to the terms of this Assignment are to serve as a cash bond covering a waste a. management facility operated by the Principal.

- b. The Division acquires by this Assignment the entire beneficial interest in the funds with the right to order the Financial Institution, in writing, to distribute the fund to persons determined by the Division to be entitled thereto, including the Division itself, in amounts determined by the Division, or to the Principal upon sale of the facility covered by this Assignment provided all applicable Division orders and rules have been complied with regarding the waste management facility.
- ç, The Principal retains no legal or beneficial interest in the fund and has only the right to interest, if any, thereon, and to return of the fund upon written order of the Division in the event the Principal property reclaims the facility site and otherwise abides by the rules and order of the Division and the Oil Conservation Commission.
- d. The Financial Institution agrees that the funds may not be assigned, transferred pledged or distributed except upon written order of the Division or a court of competent jurisdiction made in a proceeding in which the Division is a party. The Financial Institution waives all statutory or common law liens or rights of set-off against the funds.

The Principal agrees that the Financial Institution may deduct from interest due the Principal any attorney fees incurred by the Financial Institution if claim or demand via writ, summons or other process arising from Principal's business is made upon the Financial Institution.

MARCH 2008 day of Signed th

Signature of PRINCIPAL, personally or by authorized officer

 $\langle$ 

Signature of authorized officer of Financial Institution

Title

Title

(Note: If PRINCIPAL is corporation, affix corporate seal here.)

P. 2. Lox 100 AZKe, NM 500 87410 Mailing Address

Broadway Farminaton NM 8740

Mailing Address

100	100				100
	1.1	1.100	1.2	1.15	664

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3/27/2008 2:59 PM FROM: Fax Basin Disposal TO: , 5 , 326-3955 PAGE: 003 08 003

ACKNOWLEDGMENT FORM FOR NATURAL PERSONS TATE OF	
DUNTY OF	
Afy continiation expires Data Notary Public ACKNOWLEDGMENT FORM FOR CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP STATE OF ALLU MAY SS. SOUNTY OF San Jun The foregoing instrument was acknowledged before me this $2E^{12}$ day of March 2000, to David C. TUPNET as (title) Secretary Treas David C. TUPNET as (title) Secretary Treas $David C. TUPNET as (title) Secretary Treas David C. TUPNET as (title) AV P (title) Secretary Secretar$	
Date       Notary Public         ACKNOWLEDGMENT FORM FOR CORPORATION, INCORPORATED ASSOCIATION OR PARTNERSHIP         STATE OF Affui MUrice         DUIAL C. TUME:         DAUGA C. TUME:         State         DAUGA C. TUME:         State         Dispezal:         Incomporated association, or partnership.         My commission expires:         DISPERATION         STATE OF Affui MURICE         Notary Public         ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION         STATE OF Affui MURICE	by
ACKNOWLEDGMENT FORM FOR CORPORATION, ENCORPORATED ASSOCIATION OR PARTNERSHIP STATE OF $A\mu_{\mu}$ $M_{Visc}$ [SS] DOUNTY OF San Jan The foregoing instrument was acknowledged before me this $\frac{32}{2}$ day of $March$ 2000, to DAUGA C. TWP. as (title) Secretary Treas or <u>Basin</u> <u>Disperse</u> Inc. as (title) Secretary Treas or <u>Basin</u> <u>Disperse</u> Inc. as (title) Secretary Treas $\frac{3128}{3007}$ Acknowledged before me this $\frac{32}{2}$ was acknowledged before me this $\frac{32}{2}$ was acknowledged before me this $\frac{32}{2}$ as (title) Secretary Treas $\frac{3128}{3007}$ Acknowledged before me this $\frac{32}{2}$ was acknowledged before me this $\frac{32}{2}$ as (title) Secretary Treas $\frac{3128}{3007}$ as (title) Secretary $\frac{32}{2}$ as (title) Secretary $\frac{32}{2}$ as (title) Secretary $\frac{32}{2}$ as $\frac{32}{2}$	
PARTNERSHIP STATE OF A Hu Mixic ) SCOUNTY OF San Jin ) The foregoing instrument was acknowledged before me this <u>DE</u> <sup>14</sup> day of March 2009. I David C. TWNEC as (title) <u>Sec ve tary</u> Treas or <u>Basin</u> <u>Disposal</u> Inc. a conversion neorporated association, or partnership. My commission expires: <u>JDE [JCU]</u> Notary Public Ma (deeperee) <u>ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION</u> STATE OF <u>Aux March</u> <u>JSS</u> . COUNTY OF San Juan) The foregoing instrument was acknowledged before me this <u>B</u> <sup>14</sup> day of <u>March</u> 2009. I <u>My Commission expires</u> <u>JDE [JCU]</u> as (title) <u>AV</u> <u>Commission</u> <u>The foregoing instrument was acknowledged before me this <u>B</u> <sup>14</sup> day of <u>March</u> 2009. I <u>My Charles</u> <u>JDE [JCU]</u> The foregoing instrument was acknowledged before me this <u>J</u> <sup>14</sup> day of <u>March</u> 2009. I <u>My Charles</u> <u>State</u> <u></u></u>	-
The foregoing instrument was acknowledged before me this <u>28</u> <sup>12</sup> day of March .2008, to <u>David C. Turner</u> as (title) <u>Secretary</u> <u>Treas</u> or <u>Basin</u> <u>Disposal</u> <u>Inc</u> <u>a</u> antipation neoroporated association, or partnership. Wy commission expires: <u>J28</u> [ <del>2007</del> <u>ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION</u> STATE OF <u>Max Maxin</u> SS. COUNTY OF <u>Sec. Macn</u> The foregoing instrument was acknowledged before me this <u>28</u> <sup>14</sup> day of <u>March</u> 2008, to <u>Mythelic</u> <u>Lindsry</u> as (title) <u>AV</u> <u>on behalf</u> <u>Cutty instrument</u> was acknowledged before me this <u>28</u> <sup>14</sup> day of <u>March</u> 2008, to <u>Mythelic</u> <u>Lindsry</u> as (title) <u>AV</u> <u>on behalf</u> . ( <u>utty instrument</u> <u>SS</u> . <u>Disposed</u> <u>Job 1</u> Notary Bublic <u>Ma</u> <u>Augure</u>	
The foregoing instrument was acknowledged before me this <u>28</u> <sup>12</sup> day of March .2008, to <u>David C. Turner</u> as (title) <u>Secretary</u> <u>Treas</u> or <u>Basin</u> <u>Disposal</u> <u>Inc</u> <u>a</u> antipation neoroporated association, or partnership. Wy commission expires: <u>J28</u> [ <del>2007</del> <u>ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION</u> STATE OF <u>Max Maxin</u> SS. COUNTY OF <u>Sec. Macn</u> The foregoing instrument was acknowledged before me this <u>28</u> <sup>14</sup> day of <u>March</u> 2008, to <u>Mythelic</u> <u>Lindsry</u> as (title) <u>AV</u> <u>on behalf</u> <u>Cutty instrument</u> was acknowledged before me this <u>28</u> <sup>14</sup> day of <u>March</u> 2008, to <u>Mythelic</u> <u>Lindsry</u> as (title) <u>AV</u> <u>on behalf</u> . ( <u>utty instrument</u> <u>SS</u> . <u>Disposed</u> <u>Job 1</u> Notary Bublic <u>Ma</u> <u>Augure</u>	
David C. TUrner as (title) Secretary Treas or <u>Basin</u> <u>Disperal</u> Inc. a providence memorporated association, or partnership. My commission expires: <u>2128</u> [201] <u>ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION</u> STATE OF <u>Memory</u> JSS. COUNTY OF <u>Secretary</u> as (title) <u>AVP</u> on behalf <u>My check</u> <u>Simple</u> <u>AVP</u> on behalf <u>Cuttying</u> <u>Bank</u> <u>financial institution</u> My commission expires: <u>2126</u> [201] <u>Date</u> <u>Notary Rublic</u> <u>March</u> <u>2008</u> . to <u>126</u> [201] <u>Notary Rublic</u> <u>March</u> <u>2008</u> . to <u>126</u> [201] <u>Secretary</u> <u>as (title)</u> <u>AVP</u> <u>on behalf</u> <u>Cuttying</u> <u>Bank</u> <u>Simple</u> <u></u>	
My commission expires: 	, by
My commission expires: 	<u>s.</u>
My commission expires: 	14111140,000, 10000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 1000, 100
Date 3128 Das7 ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION STATE OF <u>Huw Merice</u> SS. COUNTY OF Sin Juan The foregoing instrument was acknowledged before me this 28 <sup>III</sup> day of <u>March</u> 2000, to <u>Michelle Lindsry</u> as (title) <u>AV</u> <u>on behalf</u> <u>Cutizens</u> <u>Bank</u> My commission expires: <u>JDG1D011</u> Date Notary Rublic <u>March</u> <u>S</u>	·····
ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION STATE OF <u>Hew Mercic</u> SS. COUNTY OF Sin Jucan The foregoing instrument was acknowledged before me this <u>28 <sup>IH</sup></u> day of <u>March</u> <u>2009</u> , t <u>Michick Lindsry</u> as (title) <u>AVP</u> on behalf <u>Cutizing Bank</u> My commission expires: <u>JDG1D011</u> Date Notary Public Ma Augustan	: 1
ACKNOWLEDGMENT FORM FOR FINANCIAL INSTITUTION STATE OF <u>Hew Mercic</u> SS. COUNTY OF Sin Jucan The foregoing instrument was acknowledged before me this <u>28 <sup>IH</sup></u> day of <u>March</u> <u>2009</u> , t <u>Michick Lindsry</u> as (title) <u>AVP</u> on behalf <u>Cutizing Bank</u> My commission expires: <u>JDG1D011</u> Date Notary Public Ma Augustan	$\sim$
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Michelle Lundsry as (title) <u>AVP</u> on behalf <u>CUTZENS</u> <u>BUNK</u> My commission expires: <u>JJ2612011</u> Date Notary Rublic JULA UPPERENT	, by
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# Jones, Brad A., EMNRD

From:	John Volkerding [bdinc@digii.net]	
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Sent: Monday, March 31, 2008 2:35 PM

To: Jones, Brad A., EMNRD

Subject: Updated Submissions for Temporary Tank Application

Attachments: Waste Management SOP Page 4 of 5.pdf; Tanks-Schedule A.pdf; Tanks - 19.15.36.8.C \_9\_-Closure and Post Closure Plan.pdf

Brad;

Attached are:

- 1. Updated page 4 of Waste Management SOP with the following language concerning the disposal of the filters used to filter the produced water from the pond prior to being pumped to the temporary storage tanks *Pursuant to corrosivity testing under Subparagraph (m) of Paragraph (2) of Subsection D of 19.15.9.712 NMAC and approval under Paragraph (2) of Subsection C of 19.15.9.712 NMAC the filters will be disposed at the Waste Management facility along with the 5um and 20um filters used to filter the water from the pond prior to injection.*
- 2. Updated schedule with the example dates removed and changing the language concerning the release of the financial assurance to quote Paragraph (1) of Subsection B of 19.15.36.18 NMAC When the division determines that closure is complete it shall release the financial assurance as provided in Paragraph (1) of Subsection B of 19.15.36.18 NMAC
- 3. Updated Closure Plan to include a discussion on the tank removal and analyses to comply with Paragraph (4) of Subsection E of 19.15.36.18 NMAC
  - a. The temporary tanks will be removed the location within 6 months of the Effective Date of the approval's effective date..
  - b. Any free liquids in the lined bermed area shall be removed and disposed of in Basin Disposal's pond.
  - c. The soil above the liner shall be sampled from five locations as shown in the diagram below, composited, and analyzed per Paragraph (4) of Subsection E of 19.15.36.18 NMAC for TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.69.2.3103 NMAC.
  - d. Upon receipt of the analytical results, Basin Disposal will submit the results to the OCD along with a request to either re-use the soil or send it to an EMNRD/OCD-permitted landfarm or landfill. Basin Disposal will also submit a request to dispose of the liner at either the local Waste Management facility or an EMNRD/OCD -permitted landfill based on the results of the analytical data.
  - e. The soil below the liner shall be sampled from five locations as shown in the diagram below, composited, and analyzed per Paragraph (4) of Subsection E of 19.15.36.18 NMAC for TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.69.2.3103 NMAC.

I believe these are all the items we discussed in our phone call today. If you need anything else, please let me know, Thanks, John

#### John Volkerding

 General Manager

 Basin Disposal, Inc.

 PO Box 100, Aztec, NM 87410

 Office:
 505-334-3013

 Mobile:
 505-320-2840

 Fax:
 505-333-3898

 Plant:
 505-632-8936

PERMIT NM-01-0005

All produced water must be unloaded into tanks..

**Temporary Tanks** 

- c) Trucks shall back up to the tank number as instructed by Basin personnel.
- d) Drivers shall connect their grounding straps to the grounding stakes at their specific tank.
- e) Trucks shall exit the facility around the back side of the shop building.
- f) Failure of drivers to follow these procedures shall be brought to the attention of Basin management for proper resolution with the hauling company.
- 8) In the Event Basin Disposal Receives Permission from the NM OCD to set Temporary Tanks for the Storage of Produced Water
  - a) Tanks shall be placed in a lined and bermed area.
  - b) The tanks shall be inspected twice per day during the morning and afternoon facility rounds to verify that the tanks are not leaking and/or there is no standing water in the lined and bermed area
  - c) Water shall be transferred from the pond to the tanks individually using a gasoline power pump and 4" hose.
  - d) The hose and pump shall be placed inside a lined and bermed corridor that is 1.5' tall running the length from the pond to the tank storage area to ensure no spills to the ground can occur.
  - e) Water pulled from the pond, while be filtered prior to being placed into the tank using 10um polypropylene filters to ensure sludge and oil do not enter the tanks in an effort to eliminate  $H_2S$  formation in the tanks.
  - f) When water is being pumped between the pond and a tank, the activity shall be continually supervised by a Basin Disposal employee.
  - g) When the tanks are to be emptied, water will be pumped in the same manner back to the pond. Water from the pond is pumped through a set of filters prior to being injected into the Class II disposal well.
  - h) When water is pumped from the tanks to the pond, one of the hand held  $H_2S$  monitors shall be used to determine if  $H_2S$  has developed in the storage tank.
  - i) If  $H_2S$  is detected, additional bleach or sodium chlorite shall be added to the pond following the procedure in the  $H_2S$  Prevention SOP.
  - j) Pursuant to corrosivity testing under Subparagraph (m) of Paragraph
     (2) of Subsection D of 19.15.9.712 NMAC and approval under
     Paragraph (2) of Subsection C of 19.15.9.712 NMAC the filters will
     be disposed at the Waste Management facility along with the 5um and
     20um filters used to filter the water from the pond prior to injection.
- Record Keeping & Reporting

Section "REPORTING AND RECORD KEEPING" of OCD PERMIT NM-01-0005

Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load must include: 1) generator; 2) 9) Record Keeping and Reporting

- a) Basin Disposal operates three types of logbooks 1) produced water, 2) reserve pit, and 3) rejected loads
- b) Basin personnel shall record 1) generator; 2) origin; 3) date received; 4) quantity; and 5) transporter.
- c) Logbooks shall be maintained for a minimum of 5 years after operations at the plant have ceased.

#### 30. Closure and Post Closure Plan

#### 30.1 Introduction

The Basin Closure and Post Closure Policy establishes minimum standards, requirements, and duties for closing the temporary storage tank area in a manner that will protect fresh water, public health, safety and the environment pursuant to EMNRD/OCD requirements.

#### 30.2 Scope

The Basin Closure and Post Closure Policy shall be followed by all Basin employees with the Key responsibilities as follows:

**i. Senior Management:** Provides the necessary support, commitment, and resources to develop a closure and post closure plan.

**ii. General Manager**: Responsible for the preparation of closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment.

**iii. Plant Manager:** Alerts the General Manager when there are changes in Basin Disposal activities that could impact or effect the closure or post closure plan.

#### 30.3 Purpose

The requirements in the Closure and Post Closure Policy will aid in ensuring the closure of the temporary storage tank area in a manner that will protect fresh water, public health, safety and the environment pursuant to EMNRD/OCD requirements.

#### 30.4 Required Forms

None

#### 30.5 Reference

Subsection D of 19.15.36.18 NMAC and 19.15.36.11 NMAC

#### 30.6 Policy

#### 30.6.1 Submittal of Financial Assurance

- i. Basin shall submit acceptable financial assurance in the amount \$15,000
- ii. One or more of the following forms of financial assurance shall be used
  - 1) Surety bonds.
  - 2) Letters of credit.
  - 3) Cash accounts.

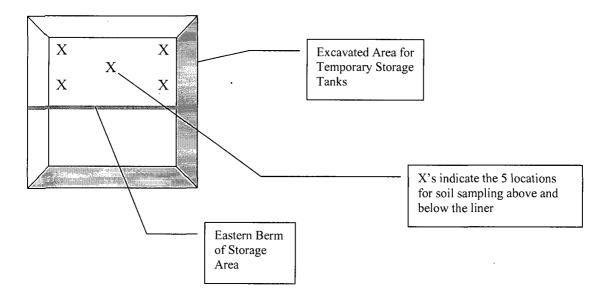
#### 30.6.2 Notification and Approval

- 1) As part of the permit application, the General Manager shall provide a proposed schedule for closure to the Environmental Bureau of the EMNRD/OCD.
- 2) Closure shall proceed in accordance with the approved closure plan and schedule and modifications or additional requirements the EMNRD/OCD imposes.
- Upon completion Basin Disposal shall not re-vegetate or backfill the site since Basin Disposal is working to submit an application to the EMNRD/OCD for a major modification to the facility that will utilize that area.

#### 30.6.3 Closure Standards

- 1) The produced water in the temporary tanks will be pumped to Basin Disposal's pond.
- 2) The temporary tanks will be removed the location within 6 months of the approval's effective date...
- 3) Any free liquids in the lined bermed area shall be removed and disposed of in Basin Disposal's pond.
- 4) The soil above the liner shall be sampled from five locations as shown in the diagram below, composited, and analyzed per Paragraph (4) of Subsection E of 19.15.36.18 NMAC for TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.69.2.3103 NMAC.

- 5) Upon receipt of the analytical results, Basin Disposal will submit the results to the OCD along with a request to either re-use the soil or send it to an EMNRD/OCD-permitted landfarm or landfill. Basin Disposal will also submit a request to dispose of the liner at either the local Waste Management facility or an EMNRD/OCD -permitted landfill based on the results of the analytical data.
- 6) The soil below the liner shall be sampled from five locations as shown in the diagram below, composited, and analyzed per Paragraph (4) of Subsection E of 19.15.36.18 NMAC for TPH, BTEX, metals and other inorganics listed in Subsections A and B of 20.69.2.3103 NMAC.
- 7) Upon receipt of the analytical results, Basin Disposal will submit the results to the OCD along with a request to either consider the area closed or perform additional remediation as needed.



Action	Estimated Schedule
Basin submits additional \$15,000 Financial	
Assurance	
Effective Date of Temporary Permit Expansion	Date the NM OCD grants Apporval
Basin completes berm to control run on water	Within 1 day of Effective Date
Basin sets the 25 tanks	Within 1-2 days of completing berm to control run on water
Basin constructs berm on East side of lined area	Upon completion of setting tanks
Basin constructs lined corridor for the pump and	Upon completion of setting tanks
hose to transport water to and from the pond	
Basin begins to transfer water from pond to tanks as	Within 1 day of completing the lined transport corridor
needed	
Basin has all 25 tanks removed	Within 5 months of Effective Date
Basin has samples collected and analyzed from soil	Within 7 days of the removal of the tanks
above liner	
Basin receives analytical results from laboratory	Within 14 days of sampling
from soil samples above liner	
Basin submits results from soil samples above liner	Within 2 days of receiving analytical results
to the OCD and submits request to either dispose of	
the soil or re-use the soil based on the analytical	
results. Basin will also submit to the OCD based on	· · · · · · · · · · · · · · · · · · ·
the analytical results a request to dispose of the	
liner at the Waste Management facility in San Juan	
county or at an OCD-approved landfill in the SE part	
of New Mexico	
Basin disposes of liner using method apporved	Within 2 days of receiving OCD approval of method
	Within 2 days of receiving OCD approval of method Within 2 days of liner removal
Basin has samples collected and analyzed from soil below liner	
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory	Within 2 days of liner removal
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner	Within 2 days of liner removal Within 14 days of sampling
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner	Within 2 days of liner removal
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify	Within 2 days of liner removal Within 14 days of sampling
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify the area as closed or perform needed remediation	Within 2 days of liner removal Within 14 days of sampling
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify the area as closed or perform needed remediation	Within 2 days of liner removal Within 14 days of sampling
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify the area as closed or perform needed remediation of the soil as shown from the analytical results.	Within 2 days of liner removal Within 14 days of sampling Within 5 days of receiving OCD approval of method
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify the area as closed or perform needed remediation of the soil as shown from the analytical results. Basin performs additional remediation and	Within 2 days of liner removal Within 14 days of sampling Within 5 days of receiving OCD approval of method Completed and results submitted within 30 days of
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify the area as closed or perform needed remediation of the soil as shown from the analytical results.	Within 2 days of liner removal Within 14 days of sampling Within 5 days of receiving OCD approval of method Completed and results submitted within 30 days of determining additional work is needed/
Basin has samples collected and analyzed from soil below liner Basin receives analytical results from laboratory from soil samples below liner Basin submits results from soil samples below liner to the OCD and submits request to either classify the area as closed or perform needed remediation of the soil as shown from the analytical results. Basin performs additional remediation and sampling, if necessary	Within 2 days of liner removal Within 14 days of sampling Within 5 days of receiving OCD approval of method Completed and results submitted within 30 days of

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BASIN DISPOSAL: INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND BRILLING MUD P.O. BOX 100 - AZTEC, NEW MEXICO 87410 E PHOLE (505) 334-3013

>2008 MAR 28 PM 1 54

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27 March 2008

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

> RE: Permit Modification Temporary Frac Tanks for Produced Water Storage Exception under 19.15.36.19 B NMAC

Dear Mr. Jones;

I am writing to request an emergency exception as provided on Exception under 19.15.36.19 B NMAC which states "The division may grant exceptions to, or waivers of, or approve alternatives to requirements of 19.15.36 NMAC in an emergency without notice or hearing. The operator requesting an exception or waiver, except in an emergency, shall apply for a surface waste management facility permit modification in accordance with Subsection C of 19.15.36.8 NMAC." Please find the attached surface waste management facility permit modification application.

Oil and gas companies in the Farmington area had great difficulty reaching their locations In February due to weather conditions and remaining in compliance with the Bureau of Land Managements' "rut rule". Now that the weather and therefore road conditions have improved, companies are making up for that backlog by trucking additional water. Because of this, the pond level has begun to rise at a rapid pace.

To avoid having to turn companies away, which would mean them shutting in wells, in this letter, we request authorization to set twenty-five (25) 400 BBL tanks for the temporary storage of produced water.

Per permit NM-1-005 requirement: "All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the area will hold one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater.".

In evaluating the site, the location that provides the greatest protection of fresh water, public health and the environment is the area where the temporary pond was being constructed. An area 150' by 300' by 5 feet deep has already been constructed. We propose to create a lined and bermed area using a 20 mil liner at that location with the dimensions of approximately 150' x 150' yielding a lined and bermed volume of 12,000 barrels. The 25 temporary frac tanks will not be connected and will be inspected daily for tank, piping and berm integrity.

Using this area, instead of constructing another location, will minimize the disturbance of the surface soil.

Basin Disposal, Inc. shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.

The proposed tanks will be on site for a maximum period of <u>six</u> months. Samples from the soil below the liner will be taken and analyzed for: Total Petroluem Hydrocarbon, BTEX, Diesel Range Organics, Gasoline Range Organics, and Chloride.

Basin Disposal will provide an additional \$15,000 in financial assurance for this project.

Basin Disposal, Inc. respectfully requests that the OCD consider and approve this request. Approval will allow Basin Disposal to accept enough water on a temporary basis to keep producers from having to curtail production and shut in wells. Also, it is our belief that having the water stored at one continuously monitored location, the water disposal location, as opposed to being stored at numerous unmanned pits and tanks in the field provides for increased protection of fresh water, public health and the environment by increasing the level of stewardship for that water.

Attached are documents addressing the requirements outlined in 19.15.36.8 NMAC, Surface Waste Management Facility Permits and Application Requirements in greater detail.

Due to the time sensitive nature of the circumstance, I respectfully request that this application be evaluated and approved as quickly as possible. If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

John Volkerding General Manager

Encl: C-137 (two copies)

Attachment A: Addresses 19.15.38.8 NMAC Paragraph C(4) Attachment B: Addresses 19.15.38.8 NMAC Paragraph C(6) Attachment C: Addresses 19.15.38.8 NMAC Paragraph C(7) Attachment D: Addresses 19.15.38.8 NMAC Paragraph C(8) Attachment E: Addresses 19.15.38.8 NMAC Paragraph C(9) Attachment F: Addresses 19.15.38.8 NMAC Paragraph C(10) Attachment G: Addresses 19.15.38.8 NMAC Paragraph C(11) Attachment H: Addresses 19.15.38.8 NMAC Paragraph C(14)

Cc: Aztec OCD Office

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210	State of New Mexico Energy Minerals and Natural Resources	For State Use Only:
District III 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-137 Revised March 1, 2007 Submit 1 Copy to Santa Fe Office

# APPLICATION FOR SURFACE WASTE MANAGEMENT FACILITY

A meeting should be scheduled with the Division's Santa Fe office Environmental Bureau prior to pursuing an application for a surface waste management facility in order to determine if the proposed location is capable of satisfying the siting requirements of Subsections A and B of 19.15.36.13 NMAC for consideration of an application submittal.

1	Application:	🗌 New	Modification	🗌 Rene	ewal	
2.	Type: 🞽 Evaporation	Injection	Treating Plant	Landfill	Landfarm	Other
3.	Facility Status:	Cor	nmercial	Cent	tralized	
4.	Operator: BASIN	DISPOSAL,	INC			
	Address: <u>206</u> M	ONTAVA,	BLOOMFIELD, N	un 874	13	
	Contact Person:	VOLKERE	NING-	Phone:	505-334-3	3013
5.	Location: <u>SE</u> /4	_NW 14 5	Section <u>3</u>	Township	<u>.9N</u> Range	110
6.	Is this an existing facility?	😡 Yes 🗌	] No If yes, provide	e permit number _	NM-1-005	

7. Attach the names and addresses of the applicant and principal officers and owners of 25 percent or more of the applicant. Specify the office held by each officer and identify the individual(s) primary responsible for overseeing management of the facility.

8. Attach a plat and topographic map showing the surface waste management facility's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the surface waste management facility site; watercourses; fresh water sources, including wells and springs; and inhabited buildings within one mile of the site's perimeter.

9. Attach the names and addresses of the surface owners of the real property on which the surface waste management facility is sited and surface owners of the real property within one mile of the site's perimeter.

10. Attach a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas.

11. Attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation and disposal method and detailed designs of surface impoundments.

12. Attach a plan for management of approved oil field wastes that complies with the applicable requirements contained in 19.15.36.13, 19.15.36.14, 19.15.36.15 and 19.15.36.17 NMAC.

13. Attach an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13 NMAC.

14. Attach a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities.

15. Attach a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC).

16 Attach a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978. Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).

17. Attach a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.

18. In the case of an application to permit a new or expanded landfill, attach a leachate management plan that describes the anticipated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options.

19. In the case of an application to permit a new or expanded landfill, attach a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC

20. Attach a best management practice plan to ensure protection of fresh water, public health, safety and the environment.

21. Attach a demonstration of compliance with the siting requirements of Subsections A and B of 19.15.36.13 NMAC.

22. Attach geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site;

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene. toluene. ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to, formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer:

(e) geologic cross-sections;

(f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed.

23. In the case of an existing surface waste management facility applying for a minor modification, describe the proposed change and identify information that has changed from the last C-137 filing.

24. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, safety or the environment and that the surface waste management facility will comply with division rules and orders

#### 25. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: JOHN VOLKERDING
Signature:
E-mail Address: BPINC @ DIGIL. NET

Title: <u>CENERAL MANAGER</u> Date: <u>C3/26/08</u>

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District 11</u> 1301 W. Grand Avenue, Artesia, NM 88210	State of New Mexico Energy Minerals and Natural Resources	For State Use Only
District III 1000 Rio Brazos Road, Aztec, NM 87410	Oil Conservation Division 1220 South St. Francis Dr.	Form C-137 Revised March 1, 2007
District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 87505	Submit 1 Copy to Santa Fe Office

# APPLICATION FOR SURFACE WASTE MANAGEMENT FACILITY

A meeting should be scheduled with the Division's Santa Fe office Environmental Bureau prior to pursuing an application for a surface waste management facility in order to determine if the proposed location is capable of satisfying the siting requirements of Subsections A and B of 19.15.36.13 NMAC for consideration of an application submittal.

1	Application:	New New	Modification Re	enewal
2.	Type: 🞽 Evaporation	Injection 🗌 T	reating Plant 🔲 Landfill	🗌 Landfarm 🔲 Other
3.	Facility Status:		l	entralized
4.	Operator: <b>BASIN</b>	DISPOSAL, IN	·	
	Address: 200 M	ONTANA, BOO	MF1/ELD, NM 87	
	Contact Person: John	VOLKERDING	Phone:	505-334-3013
5.		and a second of a second of a		291/ Range // W
6.	Is this an existing facility?	😡 Yes 🗌 No	If yes, provide permit number	er NM -1-005

7. Attach the names and addresses of the applicant and principal officers and owners of 25 percent or more of the applicant. Specify the office held by each officer and identify the individual(s) primary responsible for overseeing management of the facility.

8. Attach a plat and topographic map showing the surface waste management facility's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the surface waste management facility site; watercourses; fresh water sources, including wells and springs; and inhabited buildings within one mile of the site's perimeter.

9. Attach the names and addresses of the surface owners of the real property on which the surface waste management facility is sited and surface owners of the real property within one mile of the site's perimeter.

10. Attach a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas.

11. Attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation and disposal method and detailed designs of surface impoundments.

12. Attach a plan for management of approved oil field wastes that complies with the applicable requirements contained in 19.15.36.13, 19.15.36.14, 19.15.36.15 and 19.15.36.17 NMAC.

13. Attach an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13 NMAC.

14. Attach a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities.

15. Attach a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC).

16 Attach a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978, Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).

17. Attach a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.

18. In the case of an application to permit a new or expanded landfill, attach a leachate management plan that describes the anticipated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options.

19. In the case of an application to permit a new or expanded landfill, attach a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC

20. Attach a best management practice plan to ensure protection of fresh water, public health, safety and the environment.

21. Attach a demonstration of compliance with the siting requirements of Subsections A and B of 19.15.36.13 NMAC.

22. Attach geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site;

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene, toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to, formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer;

(e) geologic cross-sections;

(f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed.

23. In the case of an existing surface waste management facility applying for a minor modification, describe the proposed change and identify information that has changed from the last C-137 filing.

24. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, safety or the environment and that the surface waste management facility will comply with division rules and orders

#### 25. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: JOHN	VOLKERDING
Signature:	
E-mail Address:	BPWCQDIGIL

Title: <u>LENERAL MANAGER</u> Date: <u>03/26/08</u>

# Attachment A

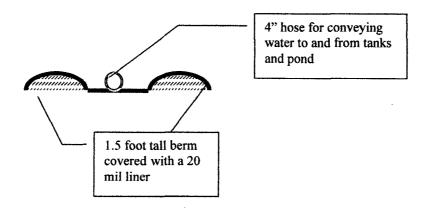
19.15.38.8 NMAC Paragraph C(4) and/or Form C-137, Paragraph 8 a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas;

Basin Disposal proposes to temporarily set twenty five (25) 400 bbls tanks for the storage of produced water.

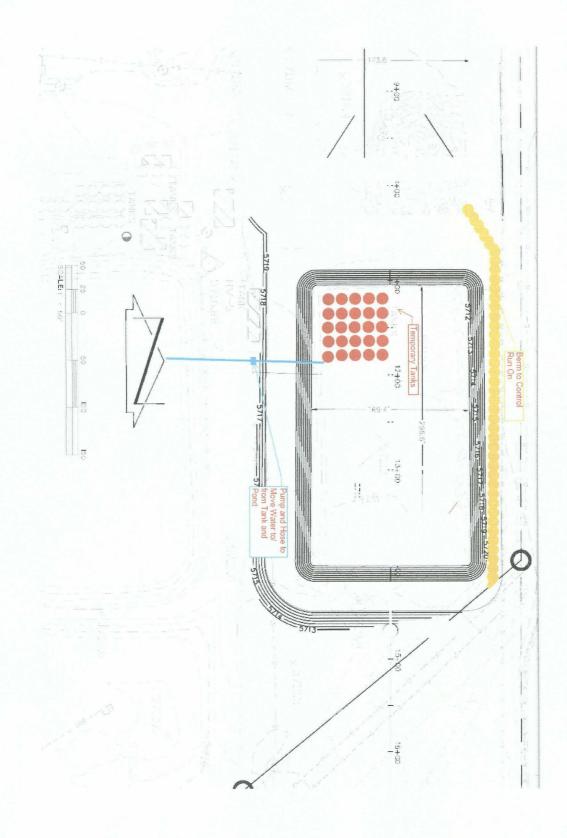
In evaluating the site, the location that provides the greatest protection of fresh water, public health and the environment is the area where the temporary pond was being constructed to the north of the current pond. An area 150' by 300' by 5 feet deep has already been constructed. We propose to create a lined and bermed area at that location with the dimensions of approximately 150' x 150'. The sides on the North, South, West are 5 feet tall. The berm on the east side will be 3 feet tall, yielding a lined and bermed volume of 67,500 cubic feet or 12,000 barrels. The 25 temporary tanks will not be connected. The liner will be a 20 mil geosynthetic material.

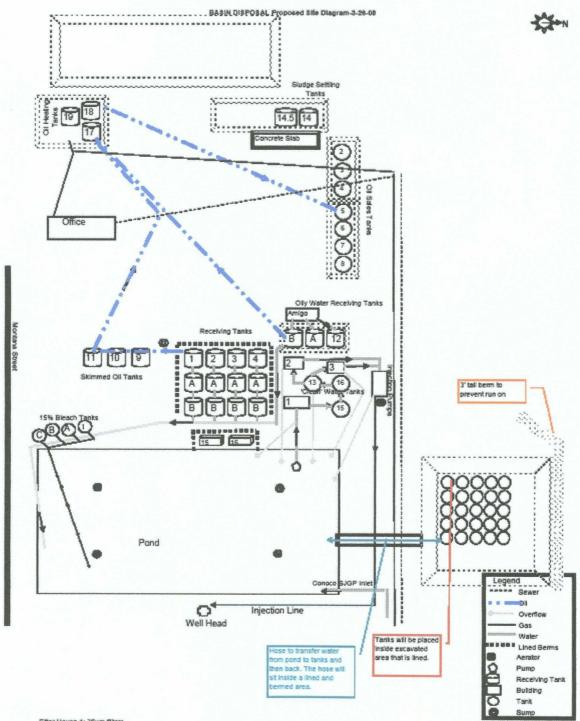
The tanks and storage area will be inspected twice daily (morning and afternoon) for tank and berm integrity.

Water will be drawn from the pond through 4" hoses via a gasoline powered pump to fill the tanks. When water is emptied from the tanks, water will be drawn via the 4" hoses and pump back to the pond. Water is drawn from the pond through filters to be injected into the Class II well. The hoses and pump will sit inside a lined and bermed area.



The area where the tanks will be set will have a 3 foot tall dirt berm constructed along the north west corner and north side to prevent water from running onto the property and into the excavated area.





Filter House 1: 20um filters Filter Houses 2 3: 5um filters

## Attachment B

19.15.38.8 NMAC Paragraph C(6) and/or Form C-137, Paragraph 12 "a plan for management of approved oil field wastes that complies with the applicable requirements contained in 19.15.36.13, 19.15.36.14, 19.15.36.15 and 19.15.36.17 NMAC"

Attached is Basin Disposal's Oil Field Waste Management SOP. Section 8 addresses the use of temporary tanks for produced water storage.

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# BASIN DISPOSAL SOP OIL FIELD WASTE MANAGEMENT

## Purpose

Provide step by step instructions on how to comply with:

- 19.15.36 NMAC Sections 8, 13, 14, 15, 17
- Basin Disposal PERMIT NM-01-0005
- Basin Disposal HSE Manual, Section 4.1, Accountability and Responsibility
- Basin Disposal EMS, Section 5, Basic HSE Performance Expectations Policy
- 1) Verification of Valid C-133
  - a) Quarterly the OCD updates the C-133 list at http://www.emnrd.state.nm.us/ocd/Statistics.htm
  - b) Quarterly the General Manager shall provide the plant personnel an updated list.
  - c) The C-133 list shall be maintained in the Plant Manager's filing cabinet.
  - d) Prior to accepting water, plant personnel shall ensure that the hauling company has a valid C-133.
  - e) Since all haulers that have frequented Basin Disposal in the past have been verified already, the verification will likely only be necessary for new haulers.
  - f) If a valid C-133 is not on file, the hauler shall not be allowed to unload the water.
  - g) Call the Plant Manager or General Manager if assistance is needed.
- 2) Verification of Exempt Waste Status
  - a) Basin Disposal tickets contain the language: I do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, any and all waste delivered to Basin Disposal Inc. from the above locations is: EXEMPT oilfield waste. This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 Subpart 1403.C and D.
  - b) The driver must sign the ticket making the above certification.
  - c) If the driver does not sign the ticket, the hauler shall not be allowed to unload the water.
  - d) Call the Plant Manager or General Manager if assistance is needed.

## C-133

Section "FACILITY AND EVAPORATION POND OPERATION" of OCD

#### PERMIT NM-01-0005

No produced water may be received at the facility unless the transporter has a valid Form C-133, Authorization to Move Produced Water, on file with the Division.

# C-138

Section "WASTE ACCEPTANE CRITERIA" of OCD PERMIT NM-01-0005 The facility is authorized to accept only oilfield wastes that are exempt from RCRA Subtitle C regulations and that do not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403. All loads of these wastes received at the facility must be accompanied by a "Generator Certificate of Waste Status" signed by

the generator.

## **Fluid Sampling**

Section "WASTE ACCEPTANCE CRITERIA" of OCD PERMIT NM-01-0005 The facility is authorized to accept only oilfield wastes that are exempt from RCRA Subtitle C regulations

- 3) Examination of Fluid from Cap(s)
  - a) All loads shall be checked prior to acceptance to check for the presence of non-permitted materials (such as, compressor oil) and to determine the solid content of the load (i.e. is the load "clean" or "dirty" for the purposes of pricing
  - b) Every truck shall stop at the inspection landing.



- c) Basin personnel shall not step onto the truck until the driver has placed the truck in park with the brake applied, opened the door, and has his/her legs outside the cab. This is to ensure the truck does not move while Basin personnel are on the truck.
- d) Basin personnel shall wear neoprene or other heavy duty nonpermeable gloves.
- e) The cap shall be opened and the metal rod inserted to the bottom of the tank.
- f) Care shall be exercised as H<sub>2</sub>S may be present when the cap is opened. If there is any indication that H<sub>2</sub>S may be present, the H<sub>2</sub>S safety procedure shall be followed.
- g) Based on whether the rod hits the metal bottom of the tank or is slowed by sludge/solid material, Basin personnel will be able to gauge if the load may potentially be dirty.
- h) The metal rod shall be pulled out from the tank and the fluid on the rod examined for the presence of oils or other non-exempt materials.
- i) Odor can also be an indication if the load contains fluids that are nonexempt.
- 4) Presence of  $H_2S$ 
  - a) In the event  $H_2S$  is suspected, either one of the  $H_2S$  monitors shall be used to determine the concentration
  - b) Refer to specific owner's manual for operation instructions.
  - c) The battery and calibration date shall be checked to ensure both are current.
  - d) The tube wand shall be used to acquire a sample.
  - e) Remaining as far away from the cap opening is essential to minimize the potential for exposure. Safety is the most important thing to consider when checking for H2S.
  - f) If H2S is noted, the driver shall contact the company man to determine if the company wants Basin to treat the load.
  - g) If Basin treats the load it shall be treated per the August 22, 2006 letter (attached) and the table below:

	Coffee Cans	Cost @
Air PPM	Used	\$125/Can
<50	1	\$125
50-100	1.5	\$188
100-150	2	\$250
150-200	2.5	\$313
200-250	3	\$375
250-300	3.5	\$438
300-350	4	\$500
350-400	4.5	\$563
400-450	5	\$625
450-500	5.5	\$688
500-550	6	\$750
550-600	6.5	\$813
600-650	7	\$875
650-700	7.5	\$938
700-750	8	\$1,000
750-800	8.5	\$1,063
800-850	9	\$1,125
850-900	9.5	\$1,188
900-950	10	\$1,250
950-1000	10.5	\$1,313
4		

- h) The truck will "roll" the load for 15-30 minutes and be tested again. Treatment will continue until the H2S reading is below 50 ppm.
- i) Call the Plant Manager or General Manager if assistance is needed.
- 5) Presence of Non-Exempt fluids
  - a) In the event compressor oil or other non-exempt fluids, a sample of the fluid shall be collected in a white Styrofoam cup.
  - b) The date, company, hauler, and location shall be noted on the cup.
  - c) The load shall be prevented from unloading at Basin Disposal.
  - d) Call the Plant Manager or General Manager if assistance is needed.
  - e) Samples shall be maintained for two weeks on the shelves in the shop for inspection by the production company personnel
- 6) Presence of High Solid Content
  - a) In the event high solid/sludge content is suspected, a sample of the water shall be collected in a white Styrofoam cup.
  - b) The date, company, hauler, and location shall be noted on the cup.
  - c) If the load can be accepted with filtration, the driver shall call the company for permission to be charged the normal price plus cost of filters.
  - d) If the load cannot be accepted due to high solid content, the driver shall call the company to inform them the load has been rejected.
  - e) The load shall be prevented from unloading at Basin Disposal.
  - f) Call the Plant Manager or General Manager if assistance is needed.
  - g) Samples shall be maintained for two weeks on the shelves in the shop for inspection by the production company personnel
- 7) Unloading
  - a) Basin Disposal has 5 unloading stations (Tanks 1-4, Amigo pit)
  - b) To minimize the chance for a collision between trucks, only 5 trucks shall be allowed past the inspection platform at any one time.

#### Unloading

Section "FACILITY AND EVAPORATION POND OPERATION" of OCD

#### PERMIT NM-01-0005

All produced water must be unloaded into tanks.

#### **Temporary Tanks**

- c) Trucks shall back up to the tank number as instructed by Basin personnel.
- d) Drivers shall connect their grounding straps to the grounding stakes at their specific tank.
- e) Trucks shall exit the facility around the back side of the shop building.
- f) Failure of drivers to follow these procedures shall be brought to the attention of Basin management for proper resolution with the hauling company.

# 8) In the Event Basin Disposal Receives Permission from the NM OCD to set Temporary Tanks for the Storage of Produced Water

- a) Tanks shall be placed in a lined and bermed area.
- b) The tanks shall be inspected twice per day during the morning and afternoon facility rounds to verify that the tanks are not leaking and/or there is no standing water in the lined and bermed area
- c) Water shall be transferred from the pond to the tanks individually using a gasoline power pump and 4" hose.
- d) The hose and pump shall be placed inside a lined and bermed corridor that is 1.5' tall running the length from the pond to the tank storage area to ensure no spills to the ground can occur.
- e) Water pulled from the pond, while be filtered prior to being placed into the tank using 10um polypropylene filters to ensure sludge and oil do not enter the tanks in an effort to eliminate H<sub>2</sub>S formation in the tanks.
- f) When water is being pumped between the pond and a tank, the activity shall be continually supervised by a Basin Disposal employee.
- g) When the tanks are to be emptied, water will be pumped in the same manner back to the pond. Water from the pond is pumped through a set of filters prior to being injected into the Class II disposal well.
- h) When water is pumped from the tanks to the pond, one of the hand held  $H_2S$  monitors shall be used to determine if  $H_2S$  has developed in the storage tank.
- i) If  $H_2S$  is detected, additional bleach or sodium chlorite shall be added to the pond following the procedure in the  $H_2S$  Prevention SOP.
- j) The filters will be disposed at the Waste Management facility along with the 5um and 20um filters used to filter the water from the pond prior to injection.
- Record Keeping & Reporting

Section "REPORTING AND RECORD KEEPING" of OCD PERMIT NM-01-0005

Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load must include: 1) generator; 2)

- 9) Record Keeping and Reporting
  - a) Basin Disposal operates three types of logbooks 1) produced water, 2) reserve pit, and 3) rejected loads
  - b) Basin personnel shall record 1) generator; 2) origin; 3) date received; 4) quantity; and 5) transporter.
  - c) Logbooks shall be maintained for a minimum of 5 years after operations at the plant have ceased.

origin; 3) date received; 4) quantity; and 5) transporter.

d) At the end of each month, the General Manager shall compile information to be submitted electronically for the C-115 report to the OCD.

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Approval

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# Attachment C

19.15.38.8 NMAC Paragraph C(7) and/or Form C-137, Paragraph 13 "an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13 NMAC;"

Attached is Basin Disposal's Oil Field Waste Management SOP. Section 8 addresses the use of temporary tanks for produced water storage.



# BASIN DISPOSAL SOP INSPECTION AND MAINTENANCE SOP

SOPEON'S BUS

# Purpose

# Provide step by step instructions on how to comply with:

- Subsection L of 19.15.36.13 NMAC
- Basin Disposal HSE Manual, Section 4.1, Accountability and Responsibility

# **Operational Inspection**

# 1) Using the Daily Plant Operation Inspection form

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- a) The following shall be inspected, the condition noted, and any actions taken documented:
- b) Injection Pump Service
- c) Condition of the following equipment shall be checked on weekends
  - i) Electrical cords
  - ii) First Aid Kit
  - iii) Fire Extinguishers
- d) Condition of the following equipment shall be checked daily
   i) Bobcat
  - I) Boocat
  - ii) Front end loader
- e) Any spills shall be noted and the procedures in the Spill SOP shall be followed
- f) The condition of stormwater run on and run off controls shall be checked, documented, and repairs made if needed.
- g) Any leaks from the following shall be repaired and notifications made as outlined in the Spill SOP
  - i) Receiving Tanks and Valves
  - ii) Hoses and Pumps
  - iii) Diesel and Bleach Storage Tanks
- h) Well Injection Volume (am and pm)
- i) Well Head Pressure
- j) Conoco Water Meter reading
- k) Filter Changes
  - i) 5 um
  - ii) 20 um
- l) Oil Sales
- m) The Plant Manager or Assistant Manager on duty shall verify that the above is accurate and complete.

Air and Water Inspection

- 2) Using the Daily Air and Water Inspection form
  - a) The following shall be inspected, the condition noted, and any actions taken documented:
  - b) Ambient Air H2S Readings (am and pm)
    - i) H2S reading (ppm)
    - ii) Wind speed
    - iii) Wind direction
    - iv) Initials and Time
  - c) Sump Checks
    - i) Pond Sump
    - ii) Cement Slab Sump
    - iii) Loading Area Sump (am and pm)
    - iv) Pump House Sump (am and pm)
    - v) Loading Sump emptied daily
    - vi) Concrete Slab emptied daily

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

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d) Pond Conditions

- i) Pond Level
- ii) Charge Pump Overflow Color
- iii) Pond Color
- iv) Temperature
- v) pH
- vi) Dissolved oxygen
- vii) Total Chloride
- viii) Dissolved H2S/sulfides
- e) Addition of Bleach/Sodium chlorite
- f) The Plant Manager or Assistant Manager on duty shall verify that the above is accurate and complete.

Temporary Tank3) In the Event Basin Disposal Receives Permission from the NM OCD to setStorage AreaTemporary Tanks for the Storage of Produced Watera) The tanks shall be inspected twice per day – during the morning and<br/>afternoon facility rounds to verify that the tanks are not leaking and/or<br/>there is no standing water in the lined and bermed areab) If a leak or standing water is observed, the procedures in the Spill

b) If a leak or standing water is observed, the procedures in the Spill Prevention, Control, and Countermeasure SOP shall be followed

Approval Signature and Date

# Attachment D

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19.15.38.8 NMAC Paragraph C(8) and/or Form C-137, Paragraph 14 "hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities;"

Please refer to Sections 4 and 8 of the Basin Disposal Oil Field Waste Management SOP and the Basin Disposal H2S Prevention SOP



# BASIN DISPOSAL SOP H<sub>2</sub>S PREVENTION

#### Purpose

Monitoring

01-0005

Section "H2S PREVENTION

Tests of ambient  $H_2S$  levels must be conducted twice per

day. Test results must be

recorded and retained. The tests must be conducted at four (4) locations around the pond at the top of the berm. The wind speed and direction must be recorded in conjunction with

AND CONTINGENCY PLAN" of OCD PERMIT NM- Provide step by step instructions on how to comply with:

- Basin Disposal PERMIT NM-01-0005
- Basin Disposal HSE Manual, Section 4.1, Accountability and Responsibility
- Basin Disposal HSE Manual, Section 16, H<sub>2</sub>S Policy

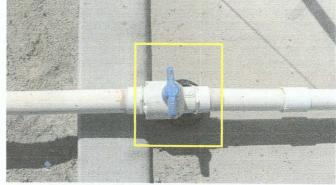
## 1) Monitoring

- a)  $H_2S$  is monitored at 4 locations around the pond.
- b) These monitors communicate wirelessly with the control panel in the office.
- c) The monitors continuously detect H<sub>2</sub>S levels and are calibrated monthly by a safety contractor.

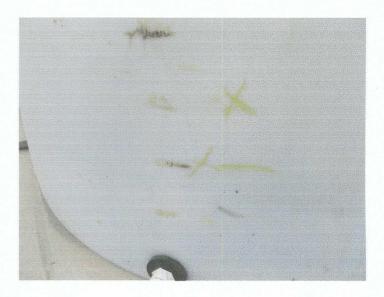
### Bleach

each test.

- 2) Bleach/Sodium hypochlorite
  - a) As directed by the Manager on duty, bleach will be added to control odors and the production of H<sub>2</sub>S in the pond.
  - b) Bleach shall be added by opening the PVC valve associated with the tank to be used. The picture shows the valve closed.



c) The amount of bleach added can be determined by using the volume markings on the side of the tank.



#### **Sodium Chlorite**

Section "H2S PREVENTION AND CONTINGENCY PLAN" of OCD PERMIT NM-01-0005

At least 1000 gallons of a H<sub>2</sub>S treatment chemical must be stored on-site and must not be retained for a period in excess of the manufacturer's stated shelf life. Expired H<sub>2</sub>S treatment chemicals may be disposed of in the pond.

- 3) Sodium Chlorite
  - a) Sodium chlorite is very reactive and can ignite in the presence of oil or dirt. Gloves and safety eye wear shall be used when working with sodium chlorite.
  - b) As directed by the Manager on duty, sodium hypochlorite will be added to control odors and the production of  $H_2S$  in the pond.
  - c) A hose shall be attached to the valve on the base of the tote.
  - d) The other end of the hose shall be placed in the pond beneath the surface of the water. This ensures sodium chlorite is not in direct contact with oil or water.
  - e) The valve shall be opened to begin adding the sodium chlorite.
  - f) Sodium chlorite is more concentrated than bleach, thus a smaller volume is used. If needed, ask assistance from the Plant Manager or General Manager.
  - g) The tote is translucent so the volume added can be determined by watching the fluid level in the tote.
  - h) GRIEF handles the disposal/return of the totes and requires the following information

#### GREIF

INFORMATION REQUIRED FOR PICKUP

MIN OF	8 IBC'S PER SHIPMENT	

COMPANY NAME	BASIN DIS	POSAL		
ADDRESS 200 MON **PLEASE ADVISE IF		DOC	K/DOOR#	BLDG#
**PLEASE ADVISE IF	FRT BEING PIC	KED UP IN S	PECIAL AREA	
CITY_BLOOMFIELD	STATE	<u>NM</u> ZIP	87413	
CONTACT NAME(S)	OR DRIVER TO			(505-486-3078) DING (505-320-2840)
PH#	FAX5053	3252215	LOADI	NG HRS
		TANKEDEC		
<u>OR TRUCKLOAD S</u> DRIVERS:	HIPMEN IS LIS	ANT SPEC	IAL REQUIREN	ENISFUR
				······································
NUMBER OF IBC'S	(275	igal. Rod cag	e)	
_	(330	gal. Rod cag	9)	
TOTAL NO. IBC'S	PAL	LET TYPE(ch	cle one) WOOE	) PLASTIC STEEL
PRODUCTS LAST CO				
	DIUM CHLORIT			
MFG OF PRODUCT (\				
INTERN/	TIONAL DIOXI	DE		
ci			TRUCK PLAC	*000
21	IPPER RESPU	NSIBLE FUR	TROUMPLAU	ARUS
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				BILL OF LADING AND
FAX TO YOU WHEN T				DILE OF LADING AND
	100110000	COULD.		
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TO 7 DA				
		N 10 AND FO	JUAL TO GREA	TER THAN 8 IBC'S
				ALTERATIONS TO THE
				BEING RESPONSIBLE
				N THE BILL OF LADING

lf you have questions or concerns, please call: BONNIE/PATTY 800/270-5393 fax: 706/356-2906 Bonnie.elliot@greif.com patty.defoor@greif.com

i) The Plant Manager or General Manager shall arrange for disposal/return of the totes

Safety

#### 4) Safety

- a) Both bleach and sodium hypochlorite are corrosive.
- b) Poly gloves shall be used when working with these chemicals.
- c) Safety eye wear shall be used when working with these chemicals.
- d) Inside the measurement shack is an eye wash station to be used in the event any chemicals enter the eye
- e) See Safety Equipment SOP

# Record Keeping & Reporting

#### Section "REPORTING AND RECORD KEEPING" of OCD

PERMIT NM-01-0005 Comprehensive records of all material disposed of at the facility must be maintained at the facility. The records for each load must include: 1) generator; 2) origin; 3) date received; 4) quantity; and 5) transporter.

# 5) Record Keeping and Reporting

a) Date, time, volume of bleach and sodium chlorite shall be recorded on the Daily Air and Water log

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AMBIENT AR WHID SPEED DIRECTION A AM READROS, NOTE INTIALS AND TIME BYM READROS, NOTE INTIALS AND TIME SUMP LEVELS A. POND AND SLAB CHECKED DAILY NOT B. PLIMP SLIMP CHECKED AM & PM, NOTE IN C. LOADING AREA SLIMP CHECKED AM &	FE INTIALS AND TIME INTIALS AND TIME		RETE SLAB EMPTIE	MPTIED AT 4 PM, NOTE I			
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b) The manager on duty shall verify that the Daily Air and Water log is completed correctly and completely.

# Approval

# Attachment E

19.15.38.8 NMAC Paragraph C(9) and/or Form C-137, Paragraph 15 "a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC);"

Please find attached:

- 1. Closure and Post Closure Plan for the Temporary Storage Tanks
- 2. Schedule for Activities

A third party's contractor's cost estimate was not included because the temporary storage tank area is only a temporary activity and Basin Disposal will utilize its equipment and personnel to close this area.

### 30. Closure and Post Closure Plan

### 30.1 Introduction

The Basin Closure and Post Closure Policy establishes minimum standards, requirements, and duties for closing the temporary storage tank area in a manner that will protect fresh water, public health, safety and the environment pursuant to EMNRD/OCD requirements.

### 30.2 Scope

The Basin Closure and Post Closure Policy shall be followed by all Basin employees with the Key responsibilities as follows:

**i. Senior Management:** Provides the necessary support, commitment, and resources to develop a closure and post closure plan.

**ii. General Manager**: Responsible for the preparation of closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment.

**iii. Plant Manager:** Alerts the General Manager when there are changes in Basin Disposal activities that could impact or effect the closure or post closure plan.

### 30.3 Purpose

The requirements in the Closure and Post Closure Policy will aid in ensuring the closure of the temporary storage tank area in a manner that will protect fresh water, public health, safety and the environment pursuant to EMNRD/OCD requirements.

### 30.4 Required Forms

None

### 30.5 Reference

Subsection D of 19.15.36.18 NMAC and 19.15.36.11 NMAC

### 30.6 Policy

### 30.6.1 Submittal of Financial Assurance

- i. Basin shall submit acceptable financial assurance in the amount \$15,000
- ii. One or more of the following forms of financial assurance shall be used
  - 1) Surety bonds.
  - 2) Letters of credit.
  - 3) Cash accounts.

### 30.6.2 Notification and Approval

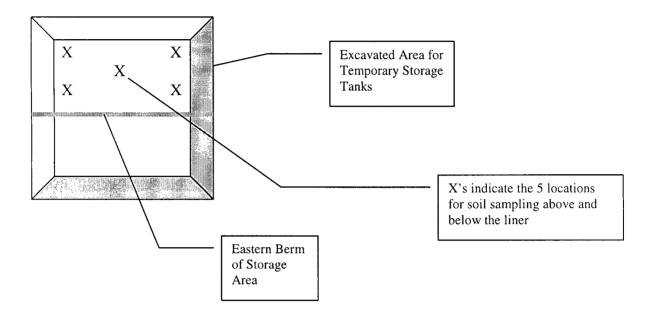
- 1) As part of the permit application, the General Manager shall provide a proposed schedule for closure to the Environmental Bureau of the EMNRD/OCD.
- 2) Closure shall proceed in accordance with the approved closure plan and schedule and modifications or additional requirements the EMNRD/OCD imposes.
- 3) Upon completion Basin Disposal shall not re-vegetate or backfill the site since Basin Disposal is working to submit an application to the EMNRD/OCD for a major modification to the facility that will utilize that area.

### 30.6.3 Post Closure Standards

- 1) Any free liquids in the lined bermed area shall be removed and disposed of in Basin Disposal's pond.
- The soil above the liner shall be sampled from five locations as shown in the diagram below, composited, and analyzed for Total Petroleum Hydrocarbon (TPH), BTEX, Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Chloride.
- 3) Upon receipt of the analytical results, Basin Disposal will submit the results to the OCD along with a request to either re-use the soil or send it to an EMNRD/OCD-permitted landfarm or landfill. Basin

Disposal will also submit a request to dispose of the liner at either the local Waste Management facility or an EMNRD/OCD -permitted landfill based on the results of the analytical data.

- 4) The soil below the liner shall be sampled from five locations as shown in the diagram below, composited, and analyzed for Total Petroleum Hydrocarbon (TPH), BTEX, Diesel Range Organics (DRO), Gasoline Range Organics (GRO), Chloride.
- 5) Upon receipt of the analytical results, Basin Disposal will submit the results to the OCD along with a request to either consider the area closed or perform additional remediation as needed.



Action	Schedule	Example Dates
Basin submits additional \$15,000 Financial	•	3/27/2008
Assurance		
Effective Date of Temporary Permit Expansion	Date the NM OCD grants Apporval	3/31/2008
Basin completes berm to control run on water	Within 1 day of Effective Date	4/1/2008
Basin sets the 25 tanks	Within 1-2 days of completing berm to control run on water	4/2/2008
Basin constructs berm on East side of lined area	Upon completion of setting tanks	4/2/2008
Basin constructs lined corridor for the pump and	Upon completion of setting tanks	
hose to transport water to and from the pond	, , , , , , , , , , , , , , , , , , ,	4/2/2008
	Within 1 day of completing the lined transport corridor	
needed	, , .g	4/3/2008
Basin has all 25 tanks removed	Within 5 months of Effective Date	8/28/2008
Basin has samples collected and analyzed from soil	Within 7 days of the removal of the tanks	
above liner		9/4/2008
Basin receives analytical results from laboratory	Within 14 days of sampling	0/ 1/2000
from soil samples above liner		9/18/2008
Basin submits results from soil samples above liner	Within 2 days of receiving analytical results	9/20/2008
to the OCD and submits request to either dispose of		3/20/2000
the soil or re-use the soil based on the analytical		
results. Basin will also submit to the OCD based on		
the analytical results a request to dispose of the		
liner at the Waste Management facility in San Juan		
county or at an OCD-approved landfill in the SE part of New Mexico		
Basin disposes of liner using method apporved	Within 2 days of receiving OCD approval of method	9/27/2008
Basin has samples collected and analyzed from soil	Within 2 days of liner removal	
below liner		9/29/2008
Basin receives analytical results from laboratory	Within 14 days of sampling	0/20/2000
from soil samples below liner		10/13/2008
Basin submits results from soil samples below liner	Within 5 days of receiving OCD approval of method	10/18/2008
to the OCD and submits request to either classify		10/10/2000
the area as closed or perform needed remediation		
of the soil as shown from the analytical results.		
Additional remediation and sampling, if necessary	Completed and results submitted within 30 days of determining	
	additional work is needed/	11/17/2008
	Within 30 days of OCD's concurrence the area is satisfactorily	
OCD releases Additional Financial Assurance	closed.	12/17/2008

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# Attachment F

19.15.38.8 NMAC Paragraph C(10) and/or Form C-137, Paragraph 16 "a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978, Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act);"

Attached are the following documents:

- 1. Section 15 of Basin Disposal's Health, Safety, and Environmental Policy Manual, *Contingency Plan*
- 2. Section 30 of Basin Disposal's Health, Safety, and Environmental Policy Manual, *Spill Prevention and Countermeasure*

# 24 Contingency plan

### 15.1 Introduction

The Basin Contingency Plan Policy was designed to minimize hazards to fresh water, public health, safety or the environment from fires, explosions or an unplanned sudden or non-sudden release of contaminants or oil field waste to air, soil, surface water or ground water in accordance with Paragraph N of 19.15.36.13 NMAC. A copy of this plan shall be provided to the EMNRD/OCD Environmental Bureau.

# 15.2 Scope

The Basin Contingency Plan Policy applies to any Basin Employee who has potential to be involved in an unplanned sudden or non-sudden release of contaminants or oil field waste to air, soil, surface water or ground water. Basin employees shall carry out the plan's provisions immediately whenever there is a fire, explosion or release of contaminants or oil field waste constituents that could threaten fresh water, public health, safety or the environment; provided that the emergency coordinator may deviate from the plan as necessary in an emergency situation.

# 15.3 Purpose

The Basin Contingency Plan Policy minimizes hazards to fresh water, public health, safety or the environment based on the three possible scenarios of:

i. Slow chronic leaking water from pond

- ii. Abrupt catastrophic release from pond
- iii. Fire at oil treating or storage tanks.

iv.

# 15.4 *Required Forms* None

15.5 Policy

# **15.5.1 General Information**

		Primary	
Name	John Volkerding	Jimmy Barnes	
Address:	4105 Skyline, Farmington, NM		
	87401		
Office Phone:	505-334-3013	505-632-8936	
Home Phone:	505-327-1061		
Mobile	505-320-2840	505-486-3078	
Phone:			

i. Emergency coordinator(s):

ii. Emergency equipment:

Equipment	Description	Capabilities
Fire Extinguishers	• <b>ABC</b> - This is the multipurpose dry chemical extinguisher. The ABC type is filled with monoammonium phosphate	<ul> <li>combustible materials such as paper, wood, cardboard, and most plastics</li> <li>flammable or combustible liquids such as gasoline, kerosene, grease and oil</li> <li>electrical equipment, such as appliances, wiring, circuit breakers and outlets.</li> </ul>
Oil Booms Front End Loader	<ul> <li>100' &amp; 50' sections</li> <li>Vinyl coated polyester or nylon - ultraviolet resistant</li> <li>Lead weights provide ballast</li> <li>18" width - 6" above water - 12" submerged</li> <li>755C Crawler</li> </ul>	• Contains oil & debris
Bobcat	Loader     553 Skid Steer	
Dobcat	<ul> <li>553 Skid Steer Loader</li> </ul>	

Copies of the plan will be maintained at : iii.

Location	Address	Phone
Basin Disposal	200 Montana, Bloomfield, NM	505-632-8936
San Juan County Fire	209 South Oliver Drive, Aztec, NM	505-334-1180
San Juan County Sheriff	211 S. Oliver St, Aztec, NM	(505) 334-6107
San Juan County	209 South Oliver Drive, Aztec, NM	505-334-1180
Emergency Response		
San Juan Regional	801 West Maple, Farmington, NM	505-325-5011
Medical Center		

Amendments to Plan: iv.

The contingency plan shall be amended within five working days whenever: a. Basin's permit is revised or modified;

- b. this plan fails in an emergency;
- c. Basin changes design, construction, operation, maintenance or other circumstances in a way that increases the potential for fires, explosions or releases of oil field waste constituents that could threaten fresh water, public health, safety or the environment or change the response necessary in an emergency;
- d. the list of emergency coordinators or contact information changes
- e. the list of emergency equipment changes
- f. the emergency coordinator may amend the plan during an emergency as necessary to protect fresh water, public health, safety or the environment.

# v. Activation of Plan

The emergency coordinator, will immediately;

- a. activate internal surface waste management facility alarms or communication systems, where applicable, to notify surface waste management facility personnel; and
- b. notify appropriate state and local agencies with designated response roles if their assistance is needed;

# 15.5.2 Slow Chronic Leaking from Pond

- i. Actions during the Emergency
  - a. Emergency coordinator will restrict the receipt of water into the plant in order to lower the pond level.
  - b. Emergency coordinator may utilize additional water trucks to remove water from the pond for disposal at other OCD approved facilities in order to lower the pond level.
  - c. If Basin has an additional pond, water will be pumped from the leaking pond to the intact pond.
  - d. If the leak is determined to be in the side of the pond, once the water is below the source of the leak, the liner will be repaired.
  - e. If the leak is determined to be in the bottom of the pond, all of the water shall be removed and the liner repaired or a new liner introduced.
  - f. Analysis of the water will be conducted to determine the concentration of constituents of concern.
  - g. The volume released will be determined and combined with the water analysis from 15.5.2.i.f, the amount of each constituent released will be calculated.
  - h. Appropriate soil remediation will be performed based on the results of the calculation in 15.5.2.i.g. to clean the environment and recover any oil field waste.
  - i. An evacuation plan is not required for this event.

j. The New Mexico Oil Conservation Division Environmental Bureau and Aztec Field Office shall be notified in accordance with the Basin Disposal Spill Prevention and Countermeasure Policy.

# 15.5.3 Abrupt Catastrophic Release from Pond

- i. Actions during the Emergency
  - a. Emergency coordinator will immediately assign someone to contact the Emergency contacts (Sheriff, San Juan County, EMNRD/OCD, EPA)
  - b. The oil booms will be used downstream to minimize the spread of the water.
  - c. The front end loader and bobcat will be used to create berms and trenches to minimize the spread of water.
  - d. The front end loader will be used to repair the levee.
  - e. Analysis of the water will be conducted to determine the concentration of constituents of concern.
  - f. The volume released will be determined and combined with the water analysis from 15.5.2.i.e, the amount of each constituent released will be calculated.
  - g. Appropriate soil remediation will be performed based on the results of the calculation in 15.5.2.i.f to clean the environment and recover any oil field waste.
  - h. Soil samples will be taken and analyzed along the path of the water and compared to soil analysis of neighboring soil not impacted by the water to determine if additional soil remediation is necessary.
  - i. Appropriate soil remediation will be performed based on the results of the samples in 15.5.2.i.h to clean the environment and recover any oil field waste.
  - j. An evacuation plan is not required for this event.
  - k. The New Mexico Oil Conservation Division Environmental Bureau and Aztec Field Office shall be notified in accordance with the Basin Disposal Spill Prevention and Countermeasure Policy.

# 15.5.4 Fire at Oil Treating or Storage Tanks

- i. Actions during the Emergency
  - a. Emergency coordinator will immediately contact San Juan County Fire Department.
  - b. Non-critical personnel will evacuate using Montana Blvd.

- c. Critical personnel will use the front end loader and bobcat to create berms and trenches to minimize the spread of oil.
- d. If the fire is at the storage tanks, the oil flow will be such as to enter the pond and/or into the depression directly to the north to minimize the extent of the oil spread.
- e. If the fire is at the treating tanks, the oil flow will be such as to enter the depression directly to the west to minimize the extent of the oil spread.
- f. After the fire is contained, soil samples will be taken and analyzed along the path of the water and compared to soil analysis of neighboring soil not impacted by the oil to determine if the extent of soil remediation necessary.
- g. Appropriate soil remediation will be performed based on the results of the samples in 15.5.2.i.f to clean the environment and recover any oil field waste.
- h. The New Mexico Oil Conservation Division Environmental Bureau and Aztec Field Office shall be notified in accordance with the Basin Disposal Spill Prevention and Countermeasure Policy.

# 15.5.5 Leaks from Temporary Storage Tanks

- i. Actions during the Emergency
  - a) The plant manager shall be notified.
  - b) If the leak from the storage tank can be fixed without emptying the tank, the repairs shall be made immediately. Additional personnel can be called in if needed
  - c) If the leak from the storage tank cannot be fixed without emptying the tank, the water shall be pumped to the pond using the gasoline powered pump and 4" hose.
  - d) Any standing water in the lined and bermed area shall be removed using Basin Disposal's vacuum truck and the water transferred to the pond.
  - e) If the water from the leak is contained within the lined and bermed area, the NM OCD does not need to be informed of the leak unless the volume exceeds 5 barrels. Notification shall be made in accordance with the Basin Disposal Spill Prevention and Countermeasure Policy.
  - f) An evacuation plan is not required for this event.

# 15.5.6 Failure of Stormwater Run On Berm Surrounding the Temporary Storage Tanks

- i. Actions during the Emergency
  - a) The plant manager shall be notified immediately
  - b) The front end loader and/or bobcat shall be used to rebuild the berm

- c) Any standing water in the lined and bermed area shall be removed using Basin Disposal's vacuum truck and the water transferred to the pond.
- d) The NM OCD does shall be notified. Notification shall be made in accordance with the Basin Disposal Spill Prevention and Countermeasure Policy.
- e) An evacuation plan is not required for this event.

# Spill Prevention Control and Countermeasure (SPCC) Policy

# 20.1 Introduction

The SPCC program is administered by the United States Environmental Protection Agency under the authority of the Clean Water Act and the Oil Pollution Prevention Act 40 CFR 112. The federal program establishes procedures, methods, equipment and other requirements to prevent the discharge of oil from non-transportation related onshore (and offshore) facilities into the "navigable waters" of the United States.

# 20.2 **Scope**

Basin believes SPCC regulations apply to the Basin Disposal Plant in that a release from the Basin Disposal Plant could reasonably be expected to discharge oil into "navigable waters" of the United States and Basin maintains an oil storage capacity greater than an amount specified by laws. At the time of writing this policy, the application of SPCC regulations to the Basin Disposal Plant, and Basin Employees, is dependent upon EPA regulators' interpretation of "navigable waters". Per Paragraph K of 19.15.36.13 NMAC Basin Disposal shall comply with the spill reporting and corrective action provisions of 19.15.1.19 or 19.15.3.116 NMAC.

# 20.3 **Purpose**

The purpose of the Basin SPCC Policy's purpose is to prevent potential environmental damage from any and all discharges of oil into the environment from the Basin Disposal Plant or by a Basin Employee and comply with all reporting and corrective action requirements.

# 20.4 Required Forms

Any reportable spills or discharges of oil shall be reported to appropriate regulatory authorities in accordance with applicable local, state and federal laws, rules and regulations on the forms, and in a manner, required by those laws, rules and regulations, to include but not limited to: EMNRD/OCD Form C-141.

# 20.5 Definitions

20.5.1 Release shall mean all breaks, leaks, spills, releases, fires or blowouts involving crude oil, produced water, condensate, drilling fluids, completion fluids or other chemical or contaminant or mixture thereof, including oil field wastes and natural gases to the environment.

# 20.5.2 <u>A Major Release</u>

- an unauthorized release of a volume in excess of 25 barrels;
- an unauthorized release of any volume which
  - results in a fire
  - will reach a water course
  - may with reasonable probability endanger public health
  - cause substantial damage to property or the environment;
- a release of any volume which may with reasonable probability be detrimental to water or cause an exceedance of the standards in Section 19, Subsection B of ,

20.5.3 <u>A Minor Release</u>

• an unauthorized release of a volume in excess of between 5 and 25 barrels;

# 20.6 Policy

# 20.6.1 Duties and Plan requirements

- i. The General Manager, or designee, shall develop and implement a SPCC Plan as required by the SPCC Program. The plan must include a written description of the Basin Disposal Plant's compliance with SPCC requirements designed to prevent oil releases into navigable waters.
- ii. The General Manager, or designee, shall ensure all equipment used to transport and store oil is sized to accommodate any expected volumes of oil. Additionally, the equipment must meet general engineering design practices such as using welded steel tanks to store oil.
- iii. The General Manager, or designee, must ensure the Basin Disposal Plant's design includes spill containment and/or diversionary structures (e.g., earthen berms or containment curbing around tanks or other equipment) that are designed to prevent oil from reaching "navigable waters". These prevention measures must be built to contain the storage capacity of the largest single tank and to allow sufficient freeboard for any rain or snow. Any containment berm drain line must have a valve that is normally locked in the closed position. Other containment structures such as retaining walls, curbing, culverts and gutters, and retention areas can be used. If adequate containment is not practical, the SPCC Plan must include a strong oil spill contingency plan and a written commitment of manpower, equipment and resources to expeditiously respond to a spill.
- iv. The General Manager, or designee, must periodically instruct personnel in the operation and maintenance of equipment to prevent oil discharges and to ensure compliance with pollution control laws and regulations.
- v. The General Manager, or designee, must review, evaluate and update (if necessary) the Basin SPCC Plan every five years, and s/he ensure copies of the Basin SPCC Plan, inspection and training records are maintained at the Basin Disposal Plant (inspection and training must be maintained for five years).

# 20.6.2 Basin employee requirements

- 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.

# 20.6.3 In the event of a spill

- i. 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.
- ii. 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.

# 20.6.4 In the event of a Minor Release

- i. In the event of a <u>Minor Release</u>, Basin Employees working at the Basin Disposal Plant shall attempt to contain the release by building a secondary basin or a diversionary structure; whichever is appropriate at the time. Minor Releases 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.
- ii. 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.
- iii. The General Manager shall submit notification to the EMNRD/OCD as follows:
  - timely written notice = within fifteen days to district office on C-141
    - timely written notice = within fifteen days to Bureau Chief on C-141
- v. The General Manager shall submit notification to other regulatory entities as required.:

# 20.6.5 In the event of a Major Release

i. In the event of a <u>Major Release</u>, Basin Employees working at the Basin Disposal Plant shall attempt to contain the release by building a secondary basin or a diversionary structure; whichever is appropriate at the time. Minor Releases 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.

- ii. 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.
- iii. The General Manager shall also submit notification the EMNRD/OCD as follows:
  - immediate verbal notice = within 24 hours to district office
  - immediate verbal notice = within 24 hours to Bureau Chief
  - timely written notice = within fifteen days to district office on C-141
  - timely written notice = within fifteen days to Bureau Chief on C-141
- vi. The General Manager shall submit notification to other regulatory entities as required.

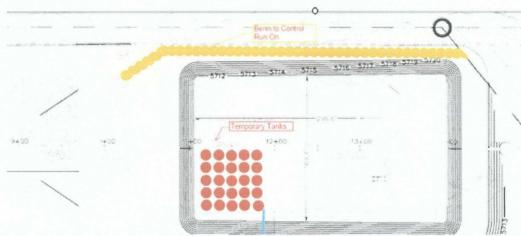
# 20.6.6 Corrective Action

- i. Basin shall complete EMNRD/OCD approved corrective action for releases which endanger public health or the environment.
- ii. Releases will be addressed in accordance with a(n) :
  - a. remediation plan submitted to and approved by EMNRD/OCD or
  - b. abatement plan submitted in accordance with Section 19 of 19.15.1 NMAC.

### Attachment G

19.15.38.8 NMAC Paragraph C(11) and/or Form C-137, Paragraph 17 "*a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC*"

The area where the temporary storage tanks are to be set is an area 150' by 300' by 5 feet deep that has already been constructed. We propose to create a lined and bermed area at that location with the dimensions of approximately 150' x 150'. The sides on the North, South, West are 5 feet tall. The berm on the east side will be 3 feet tall,



Along the north and north west sides of this area, stormwater run on from an adjoining property is possible. Basin Disposal proposes to construct a dirt berm using our front end loader and/or bobcat that will be 3 feet tall. The berm will run from the dirt pile that is currently on the property to the northeast approximately 50 feet. The berm will the continue the length of the excavated area approximately 300 feet. This will create a berm that runs the entire length of the excavated area that will prevent water from entering the area. Any water from the property to the north will be diverted to run along the berm to the east edge of Basin Disposal's property.

The berm shall be inspected daily as well as after any rain or wind event to verify its continued integrity. If during these inspections and damage is noted, Basin Disposal personnel shall use the front end loader or bobcat to repair the berm.

Also, please find attached:

1. Basin Disposal's Stormwater Pollution Prevention Plan Dated July 11, 2003

# Storm Water Pollution Prevention Plan

Basin Disposal

July 11, 2003

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### **Table of Contents**

- 1.0 Introduction
- 2.0 Background
- 3.0 Environmental Overview
- 4.0 General Site Information
  - 4.1 Owner Name and Address
  - 4.2 Facility Contacts and Telephone Numbers
  - 4.3 Project Specific Data Sheet
  - 4.4 Site Map
    - Figure 1

# 5.0 Best Management Practices for SWPPP

- 5.1 Erosion and Sediment Controls
- 5.2 Reclamation
- 5.3 Other Controls
  - 5.3.1 Materials Handling & Spill Prevention
  - 5.3.2 Waste Disposal Practices
- 6.0 Inspections and Maintenance
  - 6.1 Inspections
  - 6.2 Maintenance
  - 6.3 Record Keeping
- 7.0 Compliance with Approved State or Local Plans
- 8.0 Termination
- 9.0 Owner Certification

Appendix A Project Specific Data Sheets & Map Appendix B Project Specific Data Sheets Appendix C Notice of Intent CGP Appendix D SWPPP Modifications

# **1.0 INTRODUCTION**

This Storm water Pollution Prevention Plan (SWPPP) for Basin Disposal covers the disturbance of 18 acres for Produced Water Disposal. This SWPPP has been developed to address the activities that will take place on an ongoing basis. A Notice of Intent (NOI) has not been filed with the U.S. Environmental Protection Agency (EPA). Basin Disposal is considered grandfathered under SWPPP.

This Plan identifies Best Management Practices (BMPs) which will be implemented to meet the terms and conditions of the EPA's Phase in storm water Regulations of the NPDES program (effective March 10, 2005). According to these Phase in requirements, construction projects disturbing greater than 1.0 acre require application for coverage under the National Construction General Permit (CGP).

To add site-specific information to this SWPPP, an amendment that describes the site and addresses sitespecific project requirements is required. The amendment will be inserted into the SWPPP on a *Project Specific Data Sheet* before ground disturbing activities on any additional activities.

### 2.0 BACKGROUND

The site is on previously cleared land. Limited vegetative growth is occurring. In accordance with this SWPPP, inspections and monitoring are conducted according to the requirements of CGP and tracked in an *Inspection and Monitoring Log Book* 

This SWPPP has been prepared in accordance with good engineering, hydrologic, and pollution control practices, and is designed to constitute compliance with Best Available Technology (BAT) and Best Conventional Technology (BCT), as mandated under the Federal Clean Water Act and the Federal Water Pollution Control Act, as well as rules and regulations promulgated by the EPA.

### 3.0 ENVIRONMENT AL OVERVIEW

The following sections provide a brief overview of the location, physical, and biological environments within the boundaries of the facility.

The project is located in Section 3 Township 29 North, Range 11 West New Mexico Principle Meridian, San Juan County, New Mexico.

The SWPPP coverage area is shown on the project area maps located in Figure 1

The project land is located within the northwest portion of San Juan County, approximately 5 miles south of Aztec, New Mexico off Highway 550. The approximate elevation ranges from 5,320 to 5,550 feet above mean sea level. Land features are characterized by mesa tops and canyons with aspect slopes ranging from approximately 0 to 5 degrees. The drainage slopes to the east then south.

The San Juan River is located approximately 5.0 miles south of site. There are no wetlands or springs located within the project area.

The project area is located in the San Juan Basin, which has a semi-arid continental climate. Large variations in temperature, both diurnal and seasonal, are common. Average snowfall can range from one to twelve inches per year. However, during the drought that has encompassed the San Juan Basin for the past five years the primary precipitation falls as rain from mid July through mid September.

This site is on private land. There are no threatened, endangered or sensitive species within the site boundaries.

No cultural resources exist on this site.

# 4.0 GENERAL SITE INFORMATION

4.1 Owner Name and Address

Basin Disposal Inc. 200 Montana Bloomfield, NM 87413

Jerry Sandel Phone: (505) 334-3194

4.2 Facility Contacts and Telephone Numbers

Basin Disposal Inc. 200 Montana Bloomfield, NM 87413 Attn: Keith Johnson

Phone: (505) 632-8936

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### 4.3 **Project Specific Data Sheet**

Each project will have a *Project Specific Inspection Sheet* completed and added to Appendix B. A sample *Project Specific Data Sheet* is provided as Figure 2. Information that must be included for each site includes:

A description of the construction activity.

If it differs from the description herein, the proposed sequence for major activities.

Estimates of the total area of the site, and the area of the site that is expected to undergo clearing, excavation or grading.

If it differs from the description herein, an estimate of the runoff coefficient of the site before and after construction activities are completed and any existing data describing the soil, soil erosion potential, or the quality of any discharge from the site.

A description of the existing vegetation at the site and an estimate of the percent vegetative ground cover.

The location and description of any other potential pollution sources, such as vehicle fueling, etc.

If it differs from the description herein, the location and description of any anticipated non-storm water components of the discharge, such as springs and irrigation return flows.

The name of the receiving water(s) and the size, type and location of any outfall into the receiving water(s).

A construction site map must be attached.

# 4.4 Construction Site Maps

A map of the area surrounding the planned construction activity is inserted into this SWPPP as part of the *Project Specific Data Sheet in Appendix A*. The site map will show the construction activity in relation to surrounding topographic features.

At a minimum, the site map will include: Site boundaries, All areas of soil disturbance, Areas of cuts and fills, Location of erosion control facilities or structures.

### Figure 1 -Facility Specific Data Sheet

#### **Facility Specific Data Sheet**

### 1. Facility Name

- 2. Project Location (List Township, Range, Section, Elevation and Federal Lease Number)
- 3. Project Description (Describe specific project components including acreage and any permits submitted)
- 4. Estimated Total Area of the Site to Undergo Clearing, Excavation, or Grading (List each project component's acreage).
- 5. Existing Soil Data and Estimated Runoff Coefficient Before and After Construction.
- 6. Description of Existing Vegetation and Estimate of Percent of Ground Cover
- 7 Description of Potential Pollution Sources.
- 8. Description of Anticipated Non-stormwater Discharges.
- 9. Name of Receiving Water and Type of Outfalls

### 10. Key Project Dates

Date NOI submitted to EPA

### 11. Inspection/Monitoring

Refer to Inspection and Monitoring Log Book

12. Facility-specific BMPs -Project-specific BMPs, or those required as COA for federal projects are listed on the back of this data sheet.

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# 5.0 BEST MANAGEMENT PRACTICES FOR STORMW ATER POLLUTION PREVENTION

The recommended BMPs to be employed during construction activities are based on EPA Guidance Documents and other engineering practice sources. General BMPs to be implemented are described in the following sections for site-specific erosion and sediment control features.

5.1 Erosion and Sediment Control

### 5.1.1 Structural Practices and Non-structural/Stabilization Practices

The following project area pre- and post-construction BMPs are applicable:

Berms

Water Bars

Slope Management

### 5.2 Stabilization and Long-Term Storm water Management

### 5.2.1 Reclamation

Storm water management controls are constructed to reduce and prevent or control pollution by sediments entrained in runoff during and after construction is completed. Final site stabilization will be achieved in the following manner.

Contouring and establishing proper slopes; Constructing proper water bars in accordance with BLM/FFO specifications Maintaining berms and water bars

In accordance with the NPDES CGP final stabilization is reached when the following has been achieved:

1) All soil disturbing activities at the site have been completed;

2) Uniform vegetation cover has been established with a density of at least 70% of pre disturbance levels, or equivalent permanent physical erosion control methods have been employed. The 70% vegetation cover is defined as having 70% of cover in the adjacent un-disturbed land.

The site surface is completely used by the facility. Revegetation is not practical.

### 5.3 Other Controls

### 5.3.1 Materials Handling and Spill Prevention

Any accidental spill will be cleaned up immediately and contaminated soils will be either landfarmed or landfilled in accordance with State and Federal requirements. Where a release of hazardous substance or oil exceeds the reportable quantity established under 40 CFR 110, 40 CFR 117, 01" 40 CFR 302 during a 24-hour period, the operator must:

1.) Notify the National Response Center -800-424-8802 or 202-426-2675; 2.) Update the Plan within 14 days to address reoccurrences of such releases.

### 5.3.2 Waste Disposal Practices

The established methods for Handling Waste Material will be followed all activities. The program specifies the following waste management procedures.

Solid Waste – Trash bins are picked up by Transit Waste and hauled to the Bondad Landfill located in Colorado. Soils/BS&W-Shipped to approved landfarm

### 6.0 INSPECTIONS AND MAINTENANCE

### 6.1 Inspections

Visual inspections will occur once a month and within 48 hours of a major storm event that has the potential to cause surface runoff. Snowfall is not considered to have the potential to cause surface runoff until melting begins. The inspections should identify evidence of sediment entering drainage ways and ensure that all BMPs are functioning properly. Areas to be inspected, at a minimum, include:

- Disturbed areas;
- Erosion and sediment control BMPs
- Locations where vehicles enter or exit the facility
- Slope areas.

Individuals conducting the inspections will be knowledgeable in inspection and maintenance practices necessary for keeping the erosion and sediment controls in good working order.

### 6.2 Maintenance

Maintenance of erosion and sediment control BMPs will be conducted as defined in 6.1 to ensure that the BMPs are functioning properly.

## 6.3 Record Keeping

An Inspection and Monitoring Report Form will be completed during each site (project) inspection. The completed Inspection and Monitoring Report Forms will be maintained in an Inspection and Monitoring Log Book along with this SWPPP and will be placed in Appendix D. The Inspection and Monitoring Report Forms will be filed and maintained for a 3-year period. After that time, they may be disposed. A copy of this SWPPP and the Inspection and Monitoring Log Book will be kept at the Basin Disposal office.

Repairs and maintenance activities should be implemented as soon as practicable after the inspection. This SWPPP must also be revised within 14 days of the inspection, if necessary, to reflect changes to site description/maintenance activities (BMPs).

### 7.0 COMPLIANCE WITH APPROVED STATE OR LOCAL PLANS

This SWPPP addresses the activities for this facility and is not within the boundaries of any Native American Nation. Any erosion control or stormwater management measures specified in the project approval have been incorporated as BMPs presented in this SWPPP.

### 8.0 TERMINATION

Operators of a construction site must continue to comply with the SWPPP conditions until: (1) the construction activity is complete, and all disturbed soils have been finally stabilized as described in Section 6.2, and temporary erosion and sediment controls have been or will be removed; or (2) the facility operator changes. When one of these criteria is met, a Notice of Termination (NOT) must be filed with the EP A.

### 9.0 OWNER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

### Signature:

Name and Title (Type or Print):

Sandel Name

Basin Disposal Inc. Company

## Attachment H

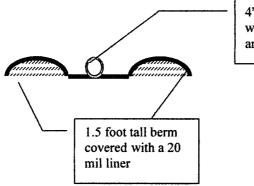
19.15.38.8 NMAC Paragraph C(14) and/or Form C-137, Paragraph 20 "a best management practice plan to ensure protection of fresh water, public health, safety and the environment;"

Water will be drawn from the pond through 4" hoses via a gasoline powered pump to fill the tanks. When water is emptied from the tanks, water will be drawn via the 4" hoses and pump back to the pond. Water is drawn from the pond through filters to be injected into the Class II well.

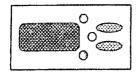
The hoses and pump will sit inside a lined (20 mil liner) and bermed area to ensure that water is not spilled on the ground during transfer.

The transfer of the water to and from the tanks will be supervised by a Basin Disposal employee so if a leak or other problem occurs, the pump can be turned off and the valve on the tank closed immediately.

The transfer will only occur during day light hours.



4" hose for conveying water to and from tanks and pond



BASEN DISPOSAL, ENC. "SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD P.O. BOX 100 - AZTEC, NEW MEXICO 87410 C-EPHONE 605) 334-3013

2008 MAR 12 PM 12 51

8 March 2008

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

> RE: Minor Permit Modificaation Temporary Frac Tanks Produced Water Storage

Dear Mr. Jones;

Attached are two newspaper articles outlining the difficulty companies in the Farmington had reaching their locations last month. Now that the weather and therefore road conditions have improved, companies are making up for that backlog by sending additional water. This has been compounded by the fact that the commercial facility near Basin Disposal, Agua Moss, has begun to turn away trucks around noon and trucks that are not owned by a sister company, M&R Trucking. As a result, the amount of water being sent to Basin Disposal has increased from the average 185 trucks per day to upwards of 265 trucks per day. Because of this, the pond level has begun to rise at a rapid pace.

To avoid having to turn companies away, which would mean them shutting in wells, in this letter, we request authorization for a minor permit modification to set twenty-five (25) 400 BBL tanks for the temporary storage of produced water. This request is identical to the request made in November 2006 and approved by the OCD. This expansion constitutes only a 10% increase in our storage capacity and again would help producers to not be forced to shut in wells.

Per permit requirement: "All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the area will hold one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater." Basin Disposal proposes to place the tanks in a bermed area lined with a 20 mil liner of a size to contain one and one-third the total tank volume.

In evaluating the site, the location that provides the greatest protection of fresh water, public health and the environment is the area where the temporary pond was being constructed. An area 150' by 300' by 5 feet deep has already been constructed. We propose to create a lined and bermed area at that location with the dimensions of approximately 150' x 150' yielding a lined and bermed volume of 16,000 barrels. One and one-third the volume of the requested 25 tanks is 13,000 bbls. The 25 temporary frac tanks will not be connected and will be inspected daily for tank, piping and berm integrity.

Using this area, instead of constructing another location, will minimize the disturbance of the surface soil.

Basin Disposal, Inc. shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.

The proposed tanks will be on site for a maximum period of <u>three</u> months. Samples from the soil below the liner will be taken and analyzed for:

Aromatic Volatiles by GC/PID (SW8021B)

Diesel Range Organics/Gasoline Range Organics (SW8015B)

I have attached a copy of the analysis that was performed after the tanks requested in November 2006 were removed from that same location.

Basin Disposal, Inc. respectfully requests that the OCD consider and approve this request. Approval will allow Basin Disposal to accept enough water on a temporary basis to keep producers from having to curtail production and shut in wells. Also, it is our belief that having the water stored at one continuously monitored location, the water disposal location, as opposed to being stored at numerous unmanned pits and tanks in the field provides for increased protection of fresh water, public health and the environment by increasing the level of stewardship for that water.

Basin Disposal has hired Cheney, Walters, Echols to compile the application for a major modification to construct an evaporation pond to avoid the need for temporary tanks in the future. I believe that Dr. Erwin Melis of Shomaker & Associates has discussed with you the OCD's soil and water sampling and analysis requirements and they will have a proposal to us on Monday. Basin Disposal had worked hard to control the water level in the pond this year to avoid having to request temporary tanks and had it not been for the weather and roads conditions that has created this temporary surge in water, our efforts would have been successful.

Due to the time sensitive nature of the circumstance, I respectfully request that this application be evaluated and approved as quickly as possible. If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

John Volkerding General Manager

Encl: C-137 (two copies) Proposed Site Diagram News Articles (2) Soil Analysis from 5-17-2007

Cc: Aztec OCD Office

1 []	<u>District 1</u> 625 N. French Dr., Hobbs, NM 88240 <u>District 11</u>	State of New Mexico Energy Minerals and Natural Resources	For State Use Only:		
1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-137 Revised March 1, 2007 Submit 1 Copy to Santa Fe Office			
	APPLICATION FOR SURFACE WASTE MANAGEMENT FACILITY A meeting should be scheduled with the Division's Santa Fe office Environmental Bureau prior to pursuing an application for a surface waste management facility in order to determine if the proposed location is capable of satisfying the siting requirements of Subsections A and B of 19.15.36.13 NMAC for consideration of an application submittal.				
1	Application: New	Modification Renewal			

2.	Type: 🛛 Evaporation	Injection Treating Pla	ant 🗌 Landfill 🔲 Landfarm	Other
3.	Facility Status:	Commercial	Centralized	
4.	Operator:BASIN DISPO	DSAL, INC	۰. ۸۵	
	Address:200 MONTAN	IA, BLOOMFIELD, NM 87413 M	AILING: PO BOX-100, AZTEC, NM:874	10
	Contact Person:		Phone:	

5. Location: <u>SE</u> /4 <u>NW</u> /4 Section <u>3</u> Township 29N Range <u>11W</u>

6. Is this an existing facility? 🛛 Yes 🗌 No If yes, provide permit number <u>NM-1-005</u>

7. Attach the names and addresses of the applicant and principal officers and owners of 25 percent or more of the applicant. Specify the office held by each officer and identify the individual(s) primary responsible for overseeing management of the facility.

8. Attach a plat and topographic map showing the surface waste management facility's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the surface waste management facility site; watercourses; fresh water sources, including wells and springs; and inhabited buildings within one mile of the site's perimeter.

9. Attach the names and addresses of the surface owners of the real property on which the surface waste management facility is sited and surface owners of the real property within one mile of the site's perimeter.

10. Attach a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas.

11. Attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation and disposal method and detailed designs of surface impoundments.

12. Attach a plan for management of approved oil field wastes that complies with the applicable requirements contained in 19.15.36.13, 19.15.36.14, 19.15.36.15 and 19.15.36.17 NMAC.

13. Attach an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13 NMAC.

14. Attach a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities.

15. Attach a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC).

16 Attach a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978. Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).

17. Attach a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.

18. In the case of an application to permit a new or expanded landfill, attach a leachate management plan that describes the anticipated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options.

19. In the case of an application to permit a new or expanded landfill, attach a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC

20. Attach a best management practice plan to ensure protection of fresh water, public health, safety and the environment.

21. Attach a demonstration of compliance with the siting requirements of Subsections A and B of 19.15.36.13 NMAC.

22. Attach geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site;

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene, toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to, formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer;

- (e) geologic cross-sections;
- (f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed.

23. In the case of an existing surface waste management facility applying for a minor modification, describe the proposed change and identify information that has changed from the last C-137 filing.

24. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, safety or the environment and that the surface waste management facility will comply with division rules and orders

### 25. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: JOHN VOLKERDING		Title: <u>GENERAI</u>
Signature:	$\rightarrow$	Date: MARCH 8
E-mail Address: BDINC@DIGII.NET		

MANAGER

-2008

<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505		State of New Energy Minerals and Oil Conservati 1220 South St. Santa Fe, N	Natural Resources on Division Francis Dr.	For State U Submit	<i>Use Only:</i> Form C-137 Revised March 1, 2007 1 Copy to Santa Fe Office
<b>APPLICATION FOR SURFACE WASTE MANAGEMENT FACILITY</b> A meeting should be scheduled with the Division's Santa Fe office Environmental Bureau prior to pursuing an application for a surface waste management facility in order to determine if the proposed location is capable of satisfying the siting requirements of Subsections A and B of 19.15.36.13 NMAC for consideration of an application submittal.					
1 Application:	New	Modification	🗌 Renewa	1	
2. Type: 🛛 Evaporation 🛛	Injection	Treating Plant	Landfill	] Landfarm	Other
3. Facility Status:	Co	mmercial	Centrali	ized	
4. Operator: BASIN DISPOSAL,	INC			κ.	

	Address: <u>200 MONTANA, BLOOMFIELD, NM 87413</u> MAILING PO BOX 100, AZTEC, NM 87410
	Contact Person: JOHN VOLKERDING Phone: 505-334-3013
5.	Location: <u>SE</u> /4 <u>NW</u> /4 Section <u>3</u> Township <u>29N</u> Range <u>11W</u>
6.	Is this an existing facility? 🔀 Yes 🗌 No If yes, provide permit number 🖄 NM-1-005

7. Attach the names and addresses of the applicant and principal officers and owners of 25 percent or more of the applicant. Specify the office held by each officer and identify the individual(s) primary responsible for overseeing management of the facility.

8. Attach a plat and topographic map showing the surface waste management facility's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the surface waste management facility site; watercourses; fresh water sources, including wells and springs; and inhabited buildings within one mile of the site's perimeter.

9. Attach the names and addresses of the surface owners of the real property on which the surface waste management facility is sited and surface owners of the real property within one mile of the site's perimeter.

10. Attach a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas.

11. Attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation and disposal method and detailed designs of surface impoundments.

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13. Attach an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13 NMAC.

14. Attach a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities.

15. Attach a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC).

16 Attach a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978, Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).

17. Attach a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.

18. In the case of an application to permit a new or expanded landfill, attach a leachate management plan that describes the anticipated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options.

19. In the case of an application to permit a new or expanded landfill, attach a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC

20. Attach a best management practice plan to ensure protection of fresh water, public health, safety and the environment.

21. Attach a demonstration of compliance with the siting requirements of Subsections A and B of 19.15.36.13 NMAC.

22. Attach geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site;

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene, toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to, formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer;

- (e) geologic cross-sections;
- (f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed.

23. In the case of an existing surface waste management facility applying for a minor modification, describe the proposed change and identify information that has changed from the last C-137 filing.

24. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, safety or the environment and that the surface waste management facility will comply with division rules and orders

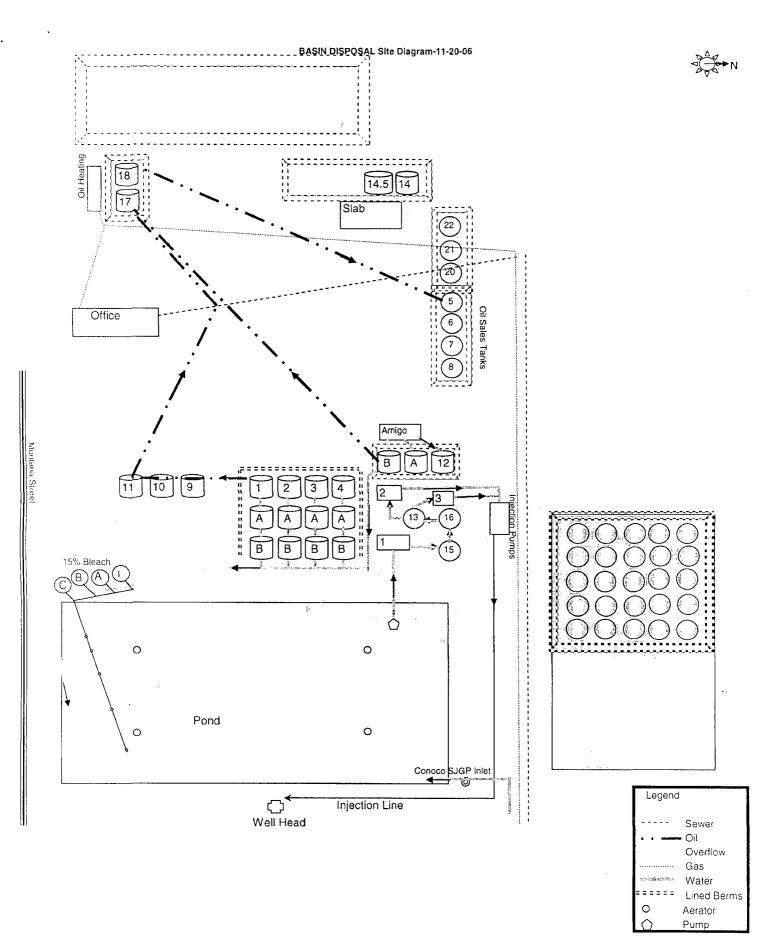
### 25. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: JOHN V	OLKERDING
\	a sa an
Signature:	
$\mathcal{A}$	
E-mail Address:	BDINC @DIGHINEL

Title: <u>GENERAL MANAGER</u>

Date: \_\_\_\_MARCH 8, 2008\_\_\_\_\_



Filter House 1: 20um filters Filter Houses 2 3: 5um filters



Las Cruces Sun-News Ruidoso News Silver City Sun-News Missile Ranger condition of rural roads and the natural environment should be a priority for us all. We each have a responsibility for maintaining our natural landscape and repairing any damage we cause.

As warm weather approaches, unpaved roads will continue to suffer, and caution is always advised when traveling them. Wet roads may become slippery and dangerous, and extra care should be taken by those using the roads.

Most of us are looking forward to spring; however winter's snow will continue to create problems in rural areas. Patience, extra attention to road condition, and a healthy respect for the environment will ensure the safety of those traveling the roads and the preservation of the landscape for which our area is noted.

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#### POST YOUR COMMENTS:

Free Credit Report with All 3 Scores Free 3-bureau Credit Report – includes Transunion, Equifax, FreeCreditReportsInstantly.com Refinance and Save \$1,000S \$150,000 Mortgage for \$483/month. Compare up to 4 free www.pickamortgage.com Get a Free iPod Shuffle Complete just 1 offer and it is your's free. www.myeasyrewards.com

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Tom Mullins, principal and engineering manager of Synergy Operating, LLC, said that while warm temperatures are nice, the lack of hard freezing during the night is negatively affecting local producers.

"Most operators will wait until weather improves to perform non-critical operations," Multins said. "Produced water will be hauled during the evening and early morning hours while the freeze holds. Thankfully we have not had to shut in production, yet."

The National Weather Service predicts another front will sweep across the Four Corners area in a couple days.

"It will start Wednesday night, with the heaviest snowfall coming around midnight and tapering off by Thursday mid-morning," said National Weather Service Meteorologist Dan Porter, based in Albuquerque. "We're predicting 1 to 3 inches of snow in the Farmington area and just a little bit more near the Colorado line north of you."

A special weather statement notes that "accumulating snows are possible ... with the highest amounts across the northern and western mountains.

Bad winter weather conditions that shut down oil and gas access roads three years ago significantly affected natural gas production in the San Juan Basin, Producers are hoping that won't be the case this year.

Cornelia de Bruin: cdebruin@daily-times.com

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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:	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 <b>-</b> 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<sub>i</sub> - 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.

Analysi

Shih Walk

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

## **Quality Assurance Report**

	04/00		Decise at #1		N1/ A
Client:	QA/QC		Project #:		N/A
Sample ID:	05-17-07 QA/0	20	Date Reported:		05-18-07
Laboratory Number:	41568		Date Sampled:		N/A
Sample Matrix:	Methylene Chlor	ide	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		05-17 <b>-07</b>
Condition:	N/A		Analysis Request	ted:	ТРН
	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%
	at to substantian da name				
Blank Conc. (mg/L - mg/Kg		Concentration		Detection Lin	il.
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	<b>Duplicate</b>	% Difference	Accept. Range	<b>∂</b>
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%

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

# EUVIROTECH LA

### PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

### **EPA METHOD 8021 AROMATIC VOLATILE ORGANICS**

\_\_\_\_\_

\_\_\_\_\_

Client: Sample ID: Laboratory Number: Chain of Custody: Sample Matrix: Preservative: Condition:	Basin Disposal Composite 41568 2680 Soil Soil Cool Cool & Intact		Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Date Extracted: Analysis Requested:		03058-002 05-18-07 05-16-07 05-16-07 05-17-07 05-17-07 BTEX
Parameter		Concentration (ug/Kg)		Det. Limit (ug/Kg)	
Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene		3.6 20.2 6.5 79.2 26.0		1.8 1.7 1.5 2.2 1.0	
Total BTEX		136			

ND - Parameter not detected at the stated detection limit.

98.0 %
98.0 %
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: Basin Yard on 550 Stormwater Pond.

istere m Waeten Analyst

Cenh Walk

### PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

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## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A		Project #:		N/A
Sample ID:	05-17-BTEX QA/0	20	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	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect,
Detection Limits (ug/L)	· · · ·	Accept. Ra	nge 0 - 15%	Conc	Limit
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
		4.8718E+007	0.2%	ND	0.2
p,m-Xylene	4.8620E+007	4.0/ 102+00/	0.2 /0		

Duplicate Conc. (ug/Kg)	Sample Du	plicate	%Dfff.	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

loiuene	20.2	20.1	0.5%	0-30%	1./
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

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.

Mistin Maeters Analyst

Sluch Walk

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CHAIN OF CUSTODY RECORD

2680



BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD" P.O. BOX 100 · AZTEC, NEW MEXICO 87410 - PHONE: (\$05) \$34-3013

# facsimile

To:

OCD Santa Fé- Brad Jones (Business Fax)

*Fax Number:* , 9, 1-505- 476-3462

 From:
 John Volkerding

 Fax Number:
 505-333-3898 or 505-632-2215

 Business Phone:
 505-320-2840

 Home Phone:

Pages:17Date/Time:3/8/2008 5:00:31 PMSubject:Minor Permit Request

# BASIN DISPOSAL, INC.

### 8 March 2008

Brad Jones EMNRD/OCD Environmental Bureau 1220 South St. Francis Dr., Santa Fe, New Mexico 87505

> RE: Minor Permit Modificaation Temporary Frac Tanks Produced Water Storage

Dear Mr. Jones;

Attached are two newspaper articles outlining the difficulty companies in the Farmington had reaching their locations last month. Now that the weather and therefore road conditions have improved, companies are making up for that backlog by sending additional water. This has been compounded by the fact that the commercial facility near Basin Disposal, Agua Moss, has begun to turn away trucks around noon and trucks that are not owned by a sister company, M&R Trucking. As a result, the amount of water being sent to Basin Disposal has increased from the average 185 trucks per day to upwards of 265 trucks per day. Because of this, the pond level has begun to rise at a rapid pace.

To avoid having to turn companies away, which would mean them shutting in wells, in this letter, we request authorization for a minor permit modification to set twenty-five (25) 400 BBL tanks for the temporary storage of produced water. This request is identical to the request made in November 2006 and approved by the OCD. This expansion constitutes only a 10% increase in our storage capacity and again would help producers to not be forced to shut in wells.

Per permit requirement: "All new or replacement above-ground tanks containing materials other than fresh water must be placed on an impermeable pad and be bermed so that the area will hold one and one-third the volume of the largest tank or all interconnected tanks, whichever is greater." Basin Disposal proposes to place the tanks in a bermed area lined with a 20 mil liner of a size to contain one and one-third the total tank volume.

In evaluating the site, the location that provides the greatest protection of fresh water, public health and the environment is the area where the temporary pond was being constructed. An area 150' by 300' by 5 feet deep has already been constructed. We propose to create a lined and bermed area at that location with the dimensions of approximately 150' x 150' yielding a lined and bermed volume of 16,000 barrels. One and one-third the volume of the requested 25 tanks is 13,000 bbls. The 25 temporary frac tanks will not be connected and will be inspected daily for tank, piping and berm integrity.

Using this area, instead of constructing another location, will minimize the disturbance of the surface soil.

Basin Disposal, Inc. shall ensure all proposed tanks are identified by a sign posted not more than 50 feet from the tanks which is made of durable construction and with lettering large enough to be legible under normal conditions at a distance of 50 feet with: the name of the operator, and the location of the tank(s) by unit letter, section, township, and range.

The proposed tanks will be on site for a maximum period of <u>three</u> months. Samples from the soil below the liner will be taken and analyzed for:  $\frac{1}{2} = \frac{1}{2}  

Aromatic Volatiles by GC/PID (SW8021B)

Diesel Range Organics/Gasoline Range Organics (SW8015B)

I have attached a copy of the analysis that was performed after the tanks requested in November 2006 were removed from that same location.

Basin Disposal, Inc. respectfully requests that the OCD consider and approve this request. Approval will allow Basin Disposal to accept enough water on a temporary basis to keep producers from having to curtail production and shut in wells. Also, it is our belief that having the water stored at one continuously monitored location, the water disposal location, as opposed to being stored at numerous unmanned pits and tanks in the field provides for increased protection of fresh water, public health and the environment by increasing the level of stewardship for that water.

Basin Disposal has hired Cheney, Walters, Echols to compile the application for a major modification to construct an evaporation pond to avoid the need for temporary tanks in the future. I believe that Dr. Erwin Melis of Shomaker & Associates has discussed with you the OCD's soil and water sampling and analysis requirements and they will have a proposal to us on Monday. Basin Disposal had worked hard to control the water level in the pond this year to avoid having to request temporary tanks and had it not been for the weather and roads conditions that has created this temporary surge in water, our efforts would have been successful.

Due to the time sensitive nature of the circumstance, I respectfully request that this application be evaluated and approved as quickly as possible. If you have any questions, please feel free to phone me at 334-3013 or 320-2840 or via email at bdinc@digii.net.

Sincerely;

John Volkerding General Manager

Encl: C-137 (two copies) Proposed Site Diagram News Articles (2) Soil Analysis from 5-17-2007

Cc: Aztec OCD Office

<u>District 1</u> 1425 N. French Dr., Hobbs, NM 88240 District II	State of Nev Energy Minerals and		For State Use Only:
Sol W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1:49- Rio Brazos Road, Aztec, NM 87410 <u>District IX</u> 1:20:3 St. Francis Dr., Santa Fe, NM 87505	Oil Conservati 1220 South St. Santa Fe, N	on Division Francis Dr.	Form C-137 Revised March 1, 2007 Submit 1 Copy to Santa Fe Office
A meeting should be scheduled v for a surface waste management	FOR SURFACE WAST with the Division's Santa Fe office J nt facility in order to determine if th tions A and B of 19,15.36.13 NMA(	Environmental Bureau p he proposed location is c	rior to pursuing an application capable of satisfying the siting
I Application:	New 🛛 Modification	Renewal	
2. Type: 🛛 Evaporation 🛛	Injection 🗌 Treating Plant	🗌 Landfill 🔲	Landfarm 🗌 Other
3. Facility Status:	Commercial	Centralize	d
4. Operator: BASIN DISPOSAL, I	INC		
Address:200 MONTANA, BL	OOMFIELD, NM 87413 MAILI	ING: PO BOX 100, AZI	EC, NM 87410
Contact Person:JOHN VOLKE	RDING	Phone:505-	334-3013
5. Location: SE/4N	W /4 Section3	Township	RangeIIW
6. Is this an existing facility?	Yes 🗌 No If yes, provide	e permit number <u>NM</u>	1-005
7. Attach the names and addresses Specify the office held by each offic facility.			
8. Attach a plat and topographic masuryeys (quarter-quarter section, tow facility site: watercourses; fresh wat perimeter.	vnship and range); highways or ro	ads giving access to the	e surface waste management
9. Attach the names and addresses sited and surface owners of the real			urface waste management facility is
10. Attach a description of the surf guards, and detailed construction/ins pipelines crossing the surface waste	stallation diagrams of pits, liners.	dikes, piping, sprayers,	tanks, roads, fences, gates, berms.
11. Attach engineering designs, cer of each applicable treatment, remedi			
12. Attach a plan for management c 19.15.36.13, 19.15.36.14, 19.15.36.		omplies with the applic	able requirements contained in
13. Attach an inspection and mainte	enance plan that complies with the	e requirements containe	ed in Subsection L of 19.15.36.13

NMAC.

14. Attach a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities.

)

15. Attach a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC).

16 Attach a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978. Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).

17. Attach a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.

18. In the case of an application to permit a new or expanded landfill, attach a leachate management plan that describes the autorpated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options.

19. In the case of an application to permit a new or expanded landfill, attach a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC

20. Attach a best management practice plan to ensure protection of fresh water, public health, safety and the environment.

21. Attach a demonstration of compliance with the siting requirements of Subsections A and B of 19.15.36.13 NMAC.

22. Attach geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site;

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene, toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to, formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer:

(e) geologic cross-sections;

(f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed.

23. In the case of an existing surface waste management facility applying for a minor modification, describe the proposed change and identify information that has changed from the last C-137 filing.

24. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, safety or the environment and that the surface waste management facility will comply with division rules and orders

#### 25. CERTIFICATION

thereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: JOHN	/OLKERDING
Signature:	Lu
E-mail Address:	BDINC@DIGILNET

For State Use Only:

District J 1625 N. French Dr., Hobbs, NM 88240 District II 1530 W. Grand Avenue, Artesía, NM 80	Energy Mineral	f New Mexico s and Natural Resources	
<ul> <li>District III</li> <li>O Rio Brazos Road, Aztee, NM 874, District IV</li> </ul>	10 Oil Conse	ervation Division th St. Francis Dr.	Form C-1.37 Revised March 1, 2007
1226 S. St. Francis Dr., Santa Fe, NM 8	7505 Santa I	Fe, NM 87505	Submit 1 Copy to Santa Fe Office
A meeting should be schedu for a surface waste manap	<b>ON FOR SURFACE W</b> uled with the Division's Santa Fe gement facility in order to determi ubsections A and B of 19.15.36.13	office Environmental Bureau p ne if the proposed location is c	rior to pursuing an application capable of satisfying the siting
1 Application:	🗌 New 🛛 Modifica	tion 🗌 Renewal	
2. Type: 🛛 Evaporation	Injection 🗌 Treating P	lant 🗌 Landfill 🗌	Landfarm 🗌 Other
3. Facility Status:	Commercial	Centralize	d
4. Operator: BASIN DISPOS	AL, INC		
	A, BLOOMFIELD, NM 87413 N DLKERDING		EC, NM 87410
5. Location: <u>SE</u> /4	NW /4 Section3	Township29N	Range 11W
6. Is this an existing facility?	Yes 🗌 No If yes, p	rovide permit number <u>NM</u> -	1-005
		-) officient and success of OS	and the second second in the second in the second

T. Attach the names and addresses of the applicant and principal officers and owners of 25 percent or more of the applicant. Specify the office held by each officer and identify the individual(s) primary responsible for overseeing management of the tacihty.

8. Attach a plat and topographic map showing the surface waste management facility's location in relation to governmental surveys (quarter-quarter section, township and range); highways or roads giving access to the surface waste management facility site; watercourses; fresh water sources, including wells and springs; and inhabited buildings within one mile of the site's perimeter.

9. Attach the names and addresses of the surface owners of the real property on which the surface waste management facility is steed and surface owners of the real property within one mile of the site's perimeter.

10. Attach a description of the surface waste management facility with a diagram indicating the location of fences and cattle guards, and detailed construction/installation diagrams of pits, liners, dikes, piping, sprayers, tanks, roads, fences, gates, berms, pipelines crossing the surface waste management facility, buildings and chemical storage areas.

11. Attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation and disposal method and detailed designs of surface impoundments.

12. Attach a plan for management of approved oil field wastes that complies with the applicable requirements contained in 19.15.36.13, 19.15.36.14, 19.15.36.15 and 19.15.36.17 NMAC.

13. Attach an inspection and maintenance plan that complies with the requirements contained in Subsection L of 19.15.36.13. NMAC.

14. Attach a hydrogen sulfide prevention and contingency plan that complies with those provisions of 19.15.3.118 NMAC that apply to surface waste management facilities.

15. Attach a closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, safety and the environment (the closure and post closure plan shall comply with the requirements contained in Subsection D of 19.15.36.18 NMAC).

6 Attach a contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978. Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).

17. Attach a plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.

is. In the case of an application to permit a new or expanded landfill, attach a leachate management plan that describes the anticipated amount of leachate that will be generated and the leachate's handling, storage, treatment and disposal, including final post closure options.

19. In the case of an application to permit a new or expanded landfill, attach a gas safety management plan that complies with the requirements of Subsection O of 19.15.36.13 NMAC

20. Attach a best management practice plan to ensure protection of fresh water, public health, safety and the environment.

21. Attach a demonstration of compliance with the siting requirements of Subsections A and B of 19.15.36.13 NMAC.

22. Attach geological/hydrological data including:

(a) a map showing names and location of streams, springs or other watercourses, and water wells within one mile of the site:

(b) laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene. toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of ground water samples of the shallowest fresh water aquifer beneath the proposed site;

(c) depth to. formation name, type and thickness of the shallowest fresh water aquifer;

(d) soil types beneath the proposed surface waste management facility, including a lithologic description of soil and rock members from ground surface down to the top of the shallowest fresh water aquifer;

(e) geologic cross-sections;

(f) potentiometric maps for the shallowest fresh water aquifer; and

(g) porosity, permeability, conductivity, compaction ratios and swelling characteristics for the sediments on which the contaminated soils will be placed.

23. In the case of an existing surface waste management facility applying for a minor modification, describe the proposed change and identify information that has changed from the last C-137 filing.

24. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, safety or the environment and that the surface waste management facility will comply with division rules and orders

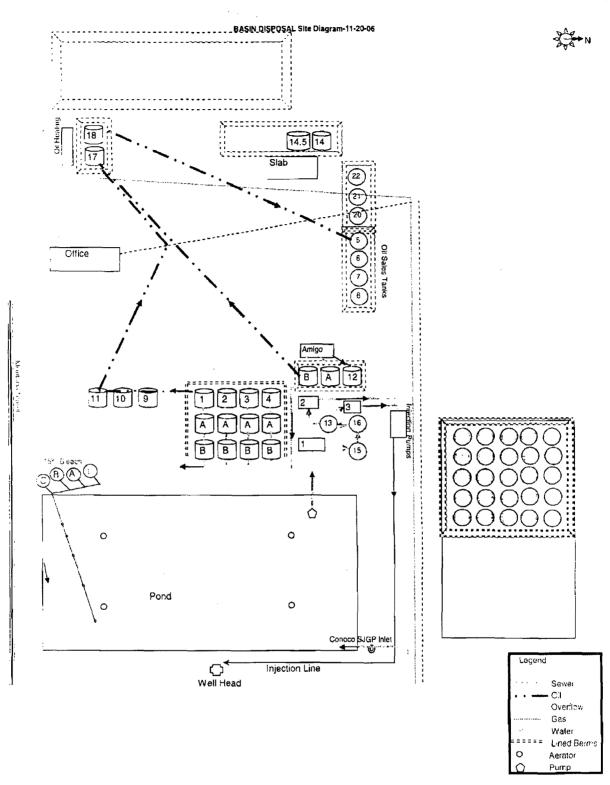
#### 25. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: JOHN VOLKERDING	
1	
Signature:	
	$\overline{X}$
E-mail Address: BDINC@DIGILNET	<u> </u>

Title: GENERAL MANAGER

Date: \_\_\_\_\_MARCH\_8, 2008\_\_\_\_\_\_



Futer House 1: 20um filters Poter Houses 2 3, 5um filters 3/8/2008 5:00 PM FROM: Fax Basin Disposal TO: , 9, 1-505- 476-3462 PAGE: 009 OF 017

conditions causing problems - Farmington Daily Times

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condition of rural roads and the natural environment should be a priority for us all. We each have a responsibility for maintaining our natural landscape and repairing any damage we cause.

As warm weather approaches, unpaved roads will continue to suffer, and caution is always advised when traveling them. Wet roads may become slippery and dangerous, and extra care should be taken by those using the roads.

Most of us are looking forward to spring; however winter's snow will continue to create problems in rural areas. Patience, extra attention to road condition, and a healthy respect for the environment will ensure the safety of those traveling the roads and the preservation of the landscape for which our area is noted.

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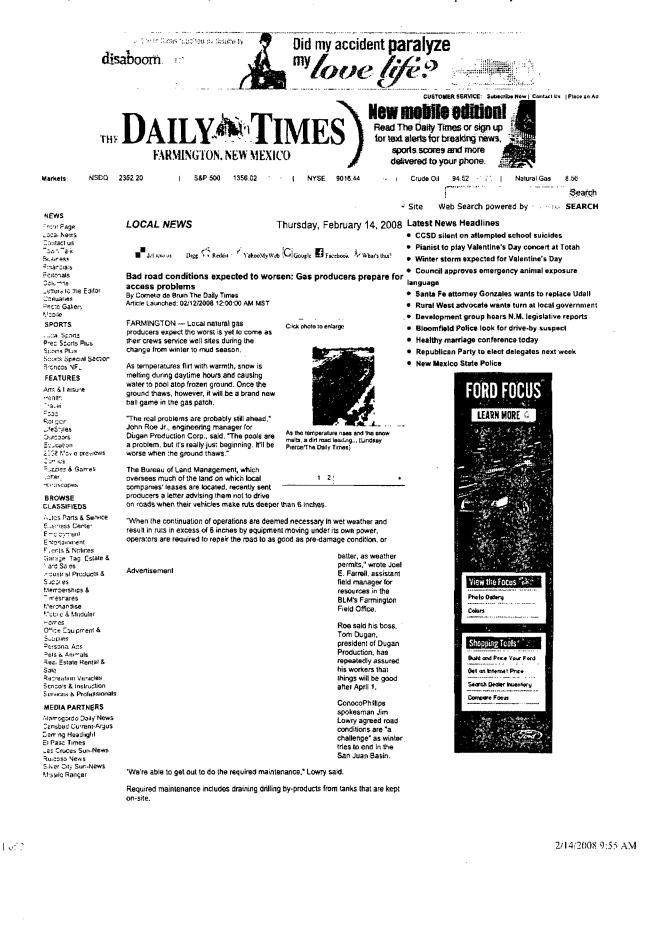
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3/8/2008 5:00 PM FROM: Fax Basin Disposal TO: , 9, 1-505- 476-3462 PAGE: 011 OF 017

on Daily Times - Bad road conditions expected to worsen: Gas ...

http://www.daily-times.com/news/ci 8236293



Farmington Daily Times - Bad road conditions expected to worsen: Gas ...

Tom Mullins, principal and engineering manager of Synergy Operating, LLC, said that while warm temperatures are nice, the lack of hard freezing during the night is negatively affecting local producers.

"Most operators will wait until weather improves to perform non-critical operations," Mullins said. "Produced water will be hauled during the evening and early morning hours while the freeze holds. Thankfully we have not had to shut in production, yet."

The National Weather Service predicts another front will sweep across the Four Corners area in a couple days.

"It will start Wednesday night, with the heaviest snowfall coming around midnight and tapering off by Thursday mid-morning," said National Weather Service Meteorologist Dan Porter, based in Albuquerque, "We're predicting 1 to 3 inches of snow in the Farmington area and just a little bit more near the Colorado line north of you."

A special weather statement notes that "accumulating snows are possible ... with the highest amounts across the northern and western mountains.

Bad winter weather conditions that shut down oil and gas access roads three years ago significantly affected natural gas production in the San Juan Basin. Producers are hoping that won't be the case this year.

Cornelia de Bruin: cdebruin@daily-times.com

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# 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
		Concentration	Det. Limit
Parameter		(mg/Kg)	(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

# EUVIROTEC ARS 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/C	20	Date Reported:		05-18-07
Laboratory Number:	41568		Date Sampled:		N/A
Sample Matrix:	Methylene Chlor	ide	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		05-17-07
Condition:	N/A		Analysis Request	led:	TPH
	I-Cal Date	1-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 Min	
Blank Conc. (mol molKo)	N. 300 000	Concentration	144 A 14	Deterlion Mm	
Gasoline Range C5 - C10		Concentration ND ND		0.2	
		ND			
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons		ND ND		0.2 0.1	
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons	2.1	ND ND	4.8%	0.2 0.1 0.2	i i i i i i i i i i i i i i i i i i i
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons Duplicate Conc. (mg/Kg)	Semple	ND ND ND	4.8% 0.0%	0.2 0.1 0.2 Accept (2011)	
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons <b>Duplicate Conc. (mg/Kg)</b> Gasoline Range C5 - C10 Diesel Range C10 - C28	2.1	ND ND ND Duplicate 2.0		0.2 0.1 0.2 Accord Hunge 0 - 30%	i Acceleration
Gasoline Range C5 - C10 Diesel Range C10 - C28 Total Petroleum Hydrocarbons <b>Duplicate Conc. (mg/Kg)</b> Gasoline Range C5 - C10	2.1	ND ND ND 2.0 1.2	0.0%	0.2 0.1 0.2 Accord Hunge 0 - 30%	<b>1055</b> - 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.

Analysi Review Review

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### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

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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
Candition:	Cool & Intact		Analysis Requested:		BTEX
				Det.	
		Concentration		Limit	
Parameter		(ug/Kg)		(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	
		136			

ND - Parameter not getected at the stated detection limit.

Surrogate Rec	e Recoveries: Parameter		Percent Recov	/ery
		Fluorobenzene	98.0 %	
		1,4-difluorobenzene	98.0 %	
		Bromochlorobenzene	98.0 %	
References:	Method 5 Decembe	030B, Purge-and-Trap, Test Methods for Evaluer 1996.	ating Solid Waste, SW-846, U	SEPA,

Comments: Basin Yard on 550 Stormwater Pond.

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#### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client	N/A		Project #:		N/A
Sample ID:	05-17-BTEX QA/Q	с	Date Reported:		05-18-07
Laboratory Number:	41568		Date Sampled:		N/A
Sample Matrix.	Soll		Date Received:		N/A
Preservative	N/A		Date Analyzed		05-17-07
Condition.	N/A		Analysis: BTEX		BTEX
Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect
Datection Limits (ug/L)		Accept. Ra	inge 0 - 15%	Conc	Linut
Benzene	2.8840E+007	2.8898E+007	0.2%	ND	0.2
Toluena	2 8032E+007	2.8088E+007	D.2%	ND	0.2
Ethylbenzene	2.3709E+007	2.3756E+007	0.2%	NÐ	0.2
p,m-Xylena	4.8520E+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 Konce and Defect Anti-

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-Xytene	79.2	79,1	0.1%	0 - 30%	2.2
a-Xylene	26.0	26.1	0.4%	0 - 30%	1.0

Spike Conc. (ug/Kg) Sampe Sampe Solvert Spiket Spiket Spiket Solvert

Benzene	3.6	50.0	53.5	99.8%	<b>39</b> - 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.

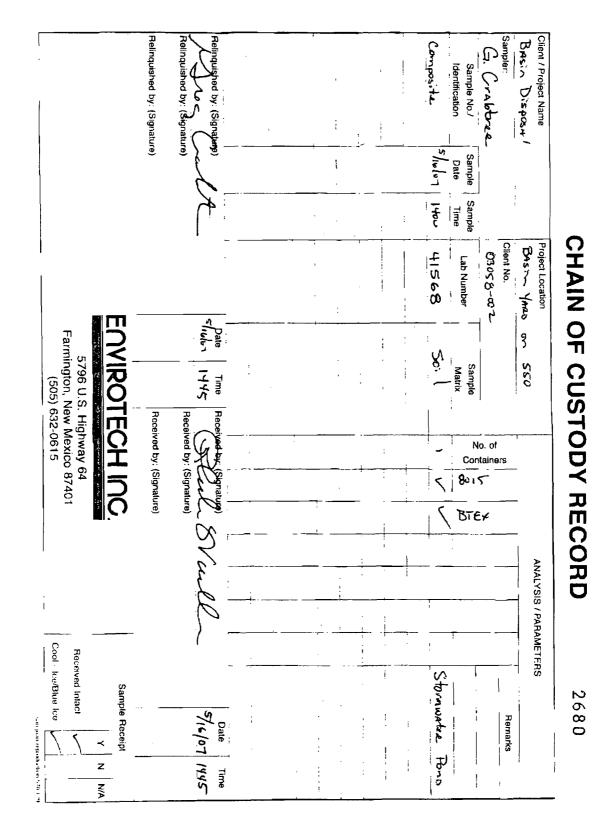
Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996. Method 8021B. Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 41568 - 41569.

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