

**NM1** - 1005

# **ENFORCEMENT**

**DATE:**

8/14/2000



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
**Oil Conservation Division**

August 23, 2000

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7099-3220-0000-5051-1064**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Complaint**  
**Basin Disposal, Inc. Permit NM-01-0005**  
**Commercial Surface Waste Management Facility**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) received a complaint regarding odors from Basin Disposal, Inc. commercial surface waste management facility. Please find enclosed a copy of the memorandum of conversation with Ms. Joan Eavenson.

If you have any questions concerning this matter please contact me at (505) 827-7153.

Sincerely,

  
Martyne J. Kieling  
Environmental Geologist

Attachments

xc: Aztec OCD Office

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time 2:00 Date 8-23-00

Originating Party

Other Parties

~~Ms. Joan Evenson~~  
Ms. Joan Evenson  
(505) 632-2057

Roger Anderson  
Martyne Kieling

Subject ODORS at Basin Disposal  
Ms. Evenson lives just north of Basin Disposal and  
across the Road.

Discussion The Smell is Constant. Ms. Evenson Has called  
Denny Foust with the OCD and Keith Johnson with Basin  
and Both Have Been Very Cooperative.  
Concern about the Poison Gas Sign. and Questions  
Concerning how she can be assured that there is  
nothing harmful when it smells so bad.  
Ms. Evenson Paper Carrier Has told Her that the  
odors are unbearable (Gaging) at 3 & 4 o'clock in the  
morning when she is delivering Paper.

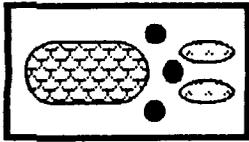
Conclusions or Agreements OCD informed Ms. Evenson that Permit  
Requirements are checked and the Facility is inspected. That  
little to no H<sub>2</sub>S has been recorded since the lawsuit. The  
Facility has been masking the odors with chemicals and controlling  
the H<sub>2</sub>S generation. We requested that Ms. Evenson note  
future odors as to exactly when they are smelled so as to aid our investigations

Distribution

Signed

Basin Disposal File NM-01-0005  
Denny Foust, OCD, AZTEC OFFICE  
Jerry Sandel, Basin Disposal

*Martyne Kieling*



# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

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

August 15, 2000

AUG 18

NMOCD  
Martyne Kieling  
2040 S. Pacheco  
Santa Fe, NM 87505

Dear Martyne,

This letter is in response to the complaint that we received about the odors from our plant on August 10, 2000. This summer has been extremely hot and dry and has been quite a challenge to keep the odors down. We haven't had any complaints for the last couple of months so we feel that we have been doing a good job on keeping them down. I am enclosing a copy of our tracking record that shows when and how much we add to the pond. We had put in 200 gallons of sodium chlorite at 8:00 AM and at 9:00 and 10:00 PM an additional 100 gallons at each time. As you can see from our record we have been pretty regular as to when we add it to the pond. If we have any further problems we will look and see what we can do to improve on our technique. Thank you for your help.

Sincerely,

Keith Johnson  
General Manager

cc: Denny Foust

4139

SODIUM CHLORITE TRACKING RECORD

NAME	DATE	TIME	METER BEFORE	METER AFTER	GALLONS
LN	7-29-00	8:00 PM	2623-0	2633-0	100 GAL
Ted	7-30-00	7:00 AM	2633-0	2643-0	100 GAL
LELAND	7-30-00	7: PM	2643-0	2653-0	100 GAL
Ted	7-31-00	1: PM	2653-0	2663-0	100 GAL
LELAND	7-31-00	8:30 PM	2663-0	2673-0	100 GAL
Ted	8-1-00	2:00 PM	2673-0	2684-0	110 GAL
LELAND	8-1-00	8: PM	2684-0	2694-0	100 GAL
ARNOLD	8-2-00	8 AM	2694-0	2704-0	100 GAL
Arnold	8-2-00	3:30 PM	2704-0	2710-0	60 GAL
LELAND	8-2-00	8: PM	2710-0	2720-0	100 GAL
LELAND	8-3-00	4: AM	2720-0	2730-0	100 GAL
the	8-3-00	7:30 AM	2730-0	2746-0	160 GAL
Jimmy	8-3-00	2:45 PM	2746-0	2756-0	100 GAL
LELAND	8-3-00	7:00 PM	2756-0	2766-0	100 GAL
LELAND	8-4-00	3:00 AM	2766-0	2776-0	100 GAL
Ted	8-4-00	9:00 AM	2778-0	2788-0	100 GAL
Ted	8-4-00	3:00 PM	2788-0	2798-0	100 GAL
LELAND	8-4-00	8:00 PM	2798-0	2808-0	100 GAL
LELAND	8-5-00	3:00 AM	2808-0	2818-0	100 GAL
Ted	8-5-00	9:00 AM	2818-0	2828-0	100 GAL
Ted	8-5-00	4:30 PM	2828-0	2838-0	100 GAL
LELAND	8-5-00	8:30 PM	2838-0	2848-0	100 GAL
Ted	8-6-00	7:30 AM	2849-0	2860-0	110 GAL
ARNOLD	8-6-00	5:50 PM	2861-0	2871-0	100 GAL
LELAND	8-7-00	3:00 AM	2884-0	2894-0	100 GAL
Ted	8-7-00	7:30 AM	2894-0	2904-0	100
Ted	8-7-00	4:30 PM	2904-0	2914-0	100
LELAND	8-7-00	9: PM	2914-0	2924-0	100
LELAND	8-8-00	3: AM	2924-0	2934-0	100
Spencer	8-8-00	8:15 AM	2934-0	2944-0	100
LELAND	8-8-00	6:30 PM	2944-0	2954-0	100
LELAND	8-9-00	2: AM	2954-0	2964-0	100
Spencer	8-9-00	7:30 AM	2965-0	2975-0	100
Jimmy	8-9-00	9:00 AM	2975-00	2980-00	50 GAL

896  
 496  
 1696  
 1596  
 496  
 396  
 286  
 186  
 086  
 4165  
 4065  
 3965  
 380  
 3705  
 3605  
 3505  
 3405  
 3305  
 3205  
 3105  
 2905  
 2805  
 2695



STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone     Personal    Time 3:02    Date Keith Johnson  
8-14-00

Originating Party Martynne Kieliny    Other Parties Keith Johnson.

Subject ODOR Response  
Thursday Night, 10<sup>th</sup> of August

Discussion will be sending a report.  
Jimmie is now in charge of the plant so it might  
be best to call Jimmie or Jerry directly next time  
Keith is handling the reporting requirements & permit

Conclusions or Agreements

Distribution    Signed Martynne Kieliny

**Kieling, Martyne**

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**From:** Foust, Denny  
**Sent:** Monday, August 14, 2000 8:23 AM  
**To:** Anderson, Roger; Kieling, Martyne  
**Subject:** BASIN DISPOSAL  
**Importance:** High

I HAD A COMPLAINT FRIDAY NIGHT FROM THE EVANSONS WHO COMPLAINED THURSDAY EVENING OF EXCESSIVE ODORS COMING FROM BASIN. I RESPONDED IMMEDIATELY, COMPLAINT RECEIVED AT 18:30, I WAS AT THE EVANSON RESIDENCE BY APPROX 18:45. NO ODOR WAS APPARENT BY 19:10 THE WIND HAD SHIFTED AGAIN AND ODORS WERE PERVASIVE BUT NOT CONSTANT. CHECKING IN AT BASIN AT APPROX 19:30 THEY WERE IN THE PROCESS OF TREATING THE POND, IT HAD BEEN VERY BLACK WHEN THE 19:00 SHIFT CAME ON AND HAD NOT BEEN TREATED SINCE 09:00. JIMMY BARNES SUGGESTS THEY ARE GETTING MORE DARK WATER FROM THE FIELD DUE TO SEDIMENT BUILD UP IN TANKS. IS A LETTER WARRANTED DIRECTING BASIN TO PRE TREAT MORE WATER OR TO TREAT BASIN'S RECEIVING TANKS PERIODICALLY DURING THE DAY OR SOMETHING ALONG THESE LINES

Thursday the 10<sup>th</sup> Augst - - - - -

STATE OF NEW MEXICO  
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

Telephone  Personal Time 8:06 Date 5-25-00

Originating Party Denny Faust Other Parties Marlyne Kicling

Subject Basin Disposal ODR Complaints

Discussion Basin is to calculate volume and add a massive dose to its Pond and Tanks To control ODRS (Not H<sub>2</sub>S)

Then Begin again with twice to 4 times Daily Chemical In pot.

ODRS Reports <sup>seem to</sup> Coenside with Warm temperatures.

Conclusions or Agreements Denny will monitor the Results.

Distribution \_\_\_\_\_ Signed Marlyne Kicling

**Public Regulation Commission**

3/6/2000

**BASIN DISPOSAL, INC.****MAILING ADDRESS  
PO BOX 100 AZTEC NEW MEXICO 87410****SCC Number: 1275171      Tax & Revenue Number: 02035664001****INCORPORATED ON JULY 19, 1985, IN NEW MEXICO.****CORPORATION IS A DOMESTIC PROFIT****CORPORATION IS ACTIVE  
GOOD STANDING THROUGH: 3/15/2000****PURPOSE OF THE CORPORATION  
PRODUCTION WASTE WATER DISPOSAL****CORPORATION DATES  
Taxable Year End Date: 12/31/99      Filing Date: //  
Corporate Existence Expiration Date:****SUPPLEMENTAL POST MARK DATES  
Supplemental:      Name Change:      Purpose Change:****PRINCIPAL ADDRESS  
15487 HIGHWAY 44 AZTEC NEW MEXICO 87410****PRINCIPAL ADDRESS(Outside New Mexico)****REGISTERED AGENT  
D.C. TURNER  
607 MERINO KRAAL-BOX 358 FARMINGTON NEW MEXICO 87499-0358****Designation date: 03/14/98      Agent Post Mark Date:      Resignation date:****COOP LICENSE INFORMATION  
Number:      Type:      Expiration Year:****SANDEL, JERRY W. *President*  
TURNER, D. C. *Vice President*  
NONE *Secretary***

**NONE Treasurer**

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**DIRECTORS**

**Date Election of Directors: 12/31/98**

**SANDEL , JERRY W**

15487 HIGHWAY 44 AZTEC , NM 87410

**TURNER , DAVID C**

15487 HIGHWAY 44 AZTEC , NM 87410

**TURNER III , DAVID C**

15487 HIGHWAY 44 AZTEC , NM 87410

New Search Inquiry Page

## Subsurface Investigation of Abandoned Pit

Basin Disposal, Inc.  
No. 6 CR 5046  
San Juan County, New Mexico

July 24, 1998

### Introduction

Pursuant to an agreement dated June 22, 1998, between Basin Disposal, Inc. and consultants Blagg Engineering, Inc. (BEI) and On Site Technologies, LTD (On-Site), a subsurface investigation of an abandoned mud pit was conducted at No. 6 CR 5046, San Juan County, New Mexico. The purpose of the investigation was to identify the vertical extent of hydrocarbon impacts at the subject abandoned pit to meet New Mexico Oil Conservation Division (NMOCD) requirements. BEI and On-Site teamed to complete the project due to specialized resources available to each entity.

*For Pit #3*  
*With initial TPH 5' Interval 16,300ppm*  
Based on telephone communication on June 22, 1998 between Jeff Blagg of BEI and Ms. Martyne Kieling of NMOCD-Santa Fe, one (1) borehole to identify the vertical extent of hydrocarbon impacts was required. The constituents of concern were total petroleum hydrocarbons (TPH) and field headspace organic vapor analysis, with a closure standard of 100 ppm each.

The investigation was conducted on June 30, 1998 using a mobile pickup mounted drill unit operated by BEI. On-Site provided field technical support and laboratory test services. Mr. Denny Foust, NMOCD Field Inspector, was on location during the investigation and observed the field sampling and testing.

### Scope of Work

The Scope of Work outlined in the agreement dated June 22, 1998 included the following:

- One test boring was to be advanced at an abandoned pit location to be identified by Basin Disposal, Inc. Total depth was to be determined following field screening methods and limited to a depth at which TPH and field OVM headspace measurements recorded less than 100 ppm.
- Soil samples were to be collected at 5-foot intervals.
- Samples were to be field screen for organic vapors testing using the field headspace test procedure.
- Select samples were to be collected for laboratory determination of TPH.

- The test boring was to be backfilled with a bentonite seal.
- A report documenting the findings of the investigation was to be prepared.

### Field Test Methods

The field investigation commenced on June 30, 1998. One test boring was advanced using a Simco Earthprobe 200 Mobile Drill Unit with 2-1/2 inch diameter solid auger. The boring was drilled at a location designated by Basin Disposal, Inc. as the center of the abandoned pit. Soil samples were collected off the auger flights at 5', 10' and 13' depths for field testing of organic vapors.

Split spoon samples were collected using a clean, 3/4 inch diameter x 18 inch long spoon sampler. The split spoon samples were obtained at the depths of 14' - 16' and 19' - 21'. These samples were also subject to field testing of organic vapors and one sample was collected for laboratory testing.

Field testing included placing a representative sample half full into a clean plastic bag, sealing the bag, then allowing vapors to accumulate for a minimum of 5-minutes. The ambient air temperature during the investigation was approximately 80°F and no sample heating was indicated. After allowing vapors to accumulate, the probe of a calibrated ThermoEnvironmental Instruments Model 580D photoionization detector organic vapor meter was inserted into the headspace of the bag and the meter deflection units, in parts per million, were recorded.

A soil specimen from the 14' - 16' split spoon sample was collected into a 4-ounce jar with a Teflon® lid, sealed, labelled and placed into an ice chest with ice. This sample was delivered to On Site Technologies Laboratory for laboratory determination of total petroleum hydrocarbons. Chain-of-Custody documentation followed this sample.

The total depth advanced in the test boring was 21 feet below ground surface. After sample collection, this boring was abandoned by filling the hole with bentonite chips and hydrating the chips with clean tap water.

### Field Observations and Test Results

The soil type found during the investigation was a uniform sand-silt-clay mixture. The soil was dry from the ground surface to a depth of approximately 2'. From 2' to the total depth tested of 21' minor moisture was evident in the soil. There was no indication of hydrocarbon impact from the ground surface to a depth of approximately 3' below ground surface. Beginning at this depth, minor soil staining by hydrocarbons and minor hydrocarbon odor was present. This staining and odor was observed between the depths of 3' and 13' below ground surface.

From 13' to 21' below ground surface, minimal to no soil staining was observed. There was minor odor of hydrocarbon from 13' to 16', but no hydrocarbon odor was observed from 19' to 21' below ground surface.

Field headspace organic vapor readings were obtained during the investigation. Presented below in Table 1 are the results of those readings:

Table 1

Basin Disposal, Inc.  
Abandoned Pit Field Headspace Results  
June 30, 1998

Sample Depth	Headspace Reading, Deflection Units, ppm
5'	35.0
10'	88.0
13'	4.0
14'-16'	5.0
19'-21'	9.5

A sample specimen from the 14' - 16' split spoon sample was collected for laboratory TPH analysis. The results of this testing indicated that using U.S. EPA Method 8015 a non-detect of hydrocarbons in the ranges C6-C10 (gasoline) and C10-C28 (diesel) was determined. The laboratory test report is attached.

No groundwater was observed or indicated at the depths investigated.

A log of the boring was prepared and is included as Figure 1.

Conclusions and Recommendations

Based on the results of one (1) test boring advanced at a location designated by Basin Disposal, Inc. as the center of an abandoned pit no hydrocarbon impacts in excess of NMOCD standards were found. No field headspace readings in excess of 100 ppm deflection units were observed in the test boring between the ground surface and the total depth penetrated at 21 feet. A single soil sample collected from the depth of 14'-16' below ground surface and submitted to a laboratory for TPH testing by U.S. EPA Method 8015 indicted a non-detect of hydrocarbons. Therefore, it is the opinion of Blagg Engineering, Inc. and On Site Technologies, LTD that at the location of the test boring there are no hydrocarbon impacts to soils in excess of NMOCD standards that penetrate to a depth greater than 14'-16' below ground surface.

It is recommended that this investigative report be submitted to NMOCD for their review and approval.

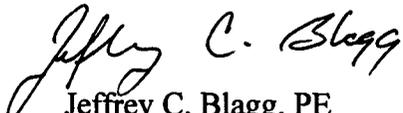
Limitations

This report has been prepared by Blagg Engineering, Inc. and On Site Technologies, LTD for the exclusive use of Basin Disposal, Inc. All statements, conclusions and recommendations contained in this report are based on information obtained during the study of soils obtained from a single boring advanced at a location designated by Basin Disposal, Inc.

The scope of services was limited to assessment of the vertical extent of impacts in excess of NMOCD standards at an abandoned pit location. Work was performed in accordance with generally accepted professional practices in environmental and petroleum engineering. No other warranty, expressed or implied, is given.

Respectfully submitted:

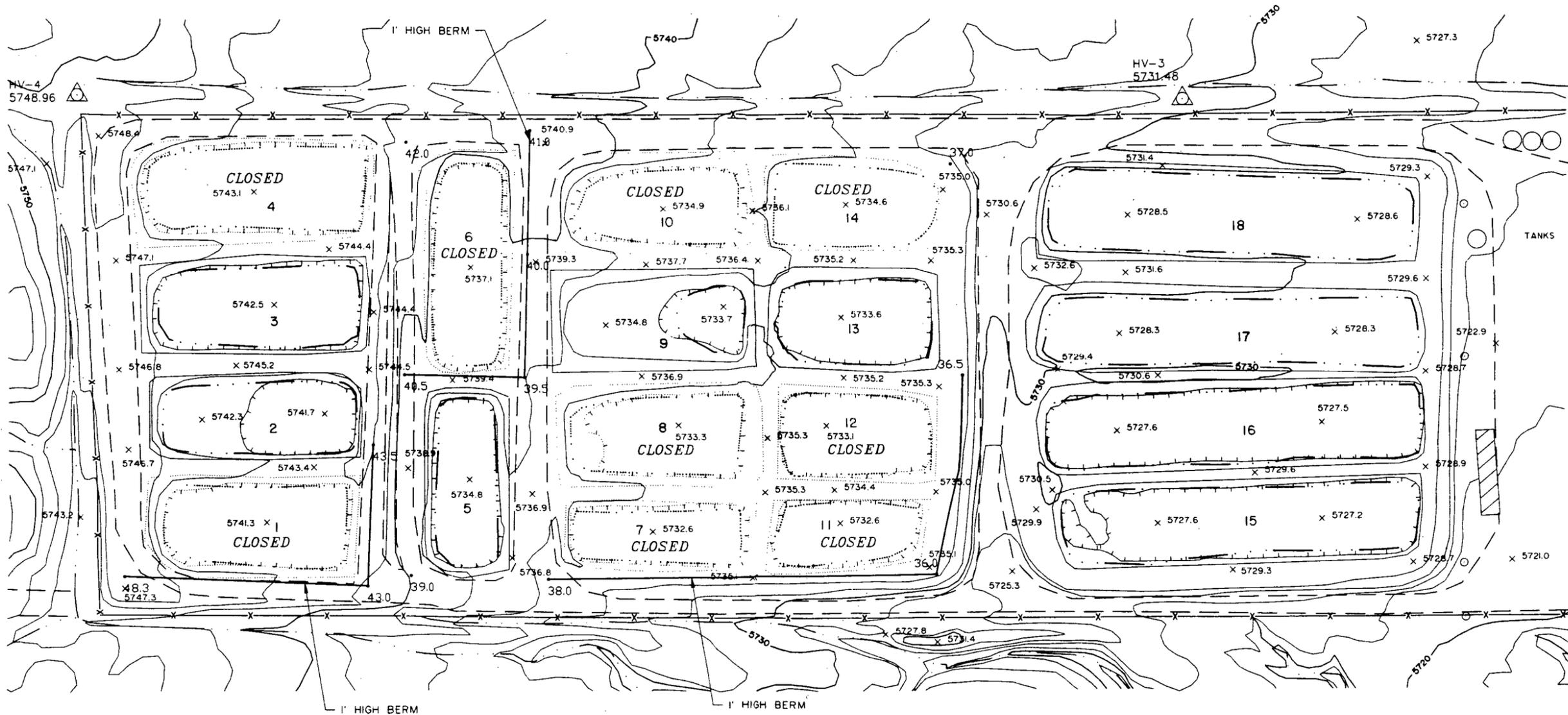
**Blagg Engineering, Inc.**

  
Jeffrey C. Blagg, PE  
President

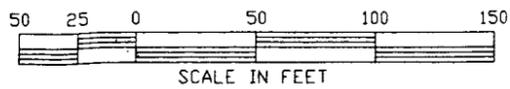
**On Site Technologies, LTD**

  
Michael K. Lane, PE  
Senior Engineering Manager

bsdns001.rpt



TANKS



x nnn.n = ORIGINAL ELEVATIONS  
 • NN.N = APPROXIMATE NEW ELEVATIONS OR TOP OF PROPOSED BERM

MAR 24 1993

**RECEIVED**

JAN 19 1999

Environmental Bureau  
Oil Conservation Division

**SUBSURFACE INVESTIGATION OF ABANDONED PIT**

**BASIN DISPOSAL, INC.  
NO. 6 CR 5046  
SAN JUAN COUNTY, NEW MEXICO**

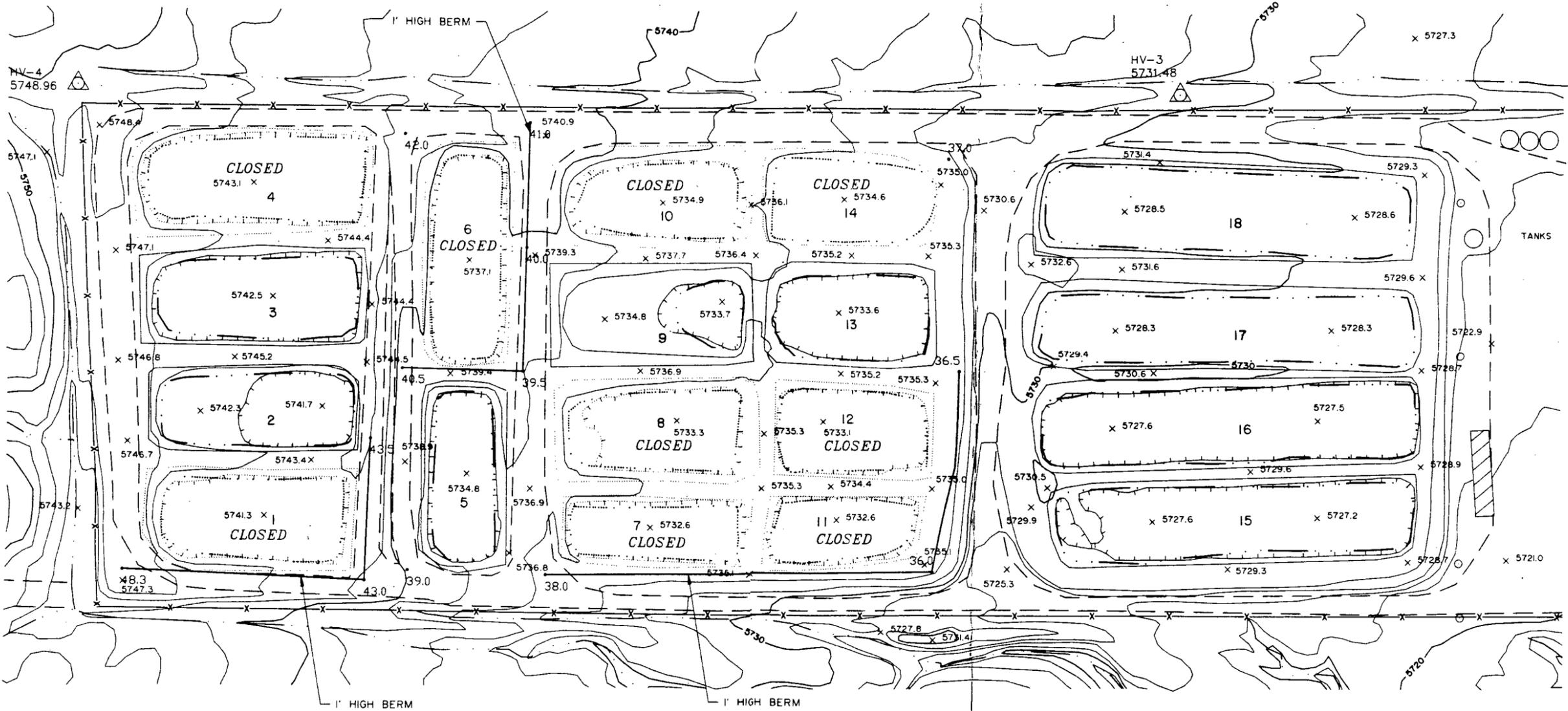
**JULY 24, 1998**

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*1998  
correspon*

**BLAGG ENGINEERING, INC.  
P.O. BOX 87  
BLOOMFIELD, NM 87413  
(505)632-1199  
job: basindisp.001**

**ON SITE TECHNOLOGIES, LTD  
P.O. BOX 2606  
FARMINGTON, NM 87499  
(505)325-5667  
job: 4-1493**



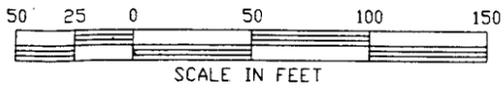
HV-4  
5748.96

HV-3  
5731.48

x 5727.3

TANKS

x 5721.0



x nnn.n = ORIGINAL ELEVATIONS  
 • NN.N = APPROXIMATE NEW ELEVATIONS OR TOP OF PROPOSED BERM

MAR 24 1993

**CHENEY-WALTERS-ECHOLS**  
 ENGINEERS • SURVEYORS  
 909 W. APACHE • FARMINGTON, NEW MEXICO 87401 • (505)327-3303

FILE: 2559  
 REVISION DATE: 3/17/93

BLAGG ENGINEERING, INC.  
 P.O. BOX 87, BLOOMFIELD, NM 87413  
 (505) 632-1199

FIGURE 1

BORING REPORT: BH#1

PROJECT: BASIN DISPOSAL MUD PIT  
 CLIENT: BASIN DISPOSAL  
 DRILLING CONTRACTOR: Blagg Engineering, Inc.  
 EQUIPMENT USED: Simco Earthprobe 200 with 2.5-inch diameter solid auger  
 DATE START: 6/30/98 DATE FINISH: 6/30/98 DRILLER: E. POTTER LOGGED BY: L. TRUJILLO  
 TOTAL DEPTH: 21 FEET CASING TYPE & SIZE: NONE SLOT SIZE: \_\_\_\_\_  
 COMMENTS: TEST BORING. BACKFILLED WITH BENTONITE.

DEPTH FEET	USCS	DVM HEADSPACE NDU	GRAPHIC LOG	SAMPLE DESCRIPTION	WELL CONSTRUCTION DETAILS
	SM/SC MIX			Sand-silt-clay mixture, yellow brown, lightly moist, non-cohesive. Minor stain and odor of hydrocarbon beginning at 3' depth and extending to 13' depth. No stain from 13' to 21', minor odor.	BORING BACKFILLED WITH BENTONITE
5		35.0			
10		88.0			
		4.0			
15		5.0		SPLIT SPOON SAMPLE 14' - 16'	
20		9.5		SPLIT SPOON SAMPLE 19' - 21'	
				TOTAL DEPTH PENETRATED 21 FEET BGS	
25					

OFF: (505) 325-5667



LAB: (505) 325-1556

July 10, 1998

Larry Trujillo  
On Site Technologies, Limited Partnership  
612 E. Murray Drive  
P.O. Box 2606  
Farmington, NM 87499  
TEL: (505) 325-5667  
FAX (505) 327-1496

RE: 4-1493

Order No.: 9806120

Dear Larry Trujillo,

On Site Technologies, LTD. received 1 sample on 6/30/98 for the analyses presented in the following report.

The Samples were analyzed for the following tests:

Diesel Range Organics (SW8015)  
Gasoline Range Organics (SW8015)

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to be 'D Cox', is written above the name David Cox.

David Cox

OFF: (505) 325-5667



LAB: (505) 325-1556

**On Site Technologies, LTD.**

**Date:** 10-Jul-98

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**CLIENT:** On Site Technologies, Limited Partnership  
**Project:** 4-1493  
**Lab Order:** 9806120

**CASE NARRATIVE**

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Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.



# CHAIN OF CUSTODY RECORD

5166

Date: 6/30/98

Page 1 of 1

TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499  
 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.:		Job No. <u>4-1493</u>		REPORT RESULTS TO	Name <u>Lacey Trujillo</u>		Title						
SEND INVOICE TO	Name <u>Lacey Trujillo</u>				Company <u>Blagg Engineering</u>								
	Company <u>Blagg Engineering</u>		Dept.		Mailing Address								
	Address					City, State, Zip							
	City, State, Zip					Telephone No.			Telefax No.				
Sampling Location: <u>Basin Disposal</u>				Number of Containers	ANALYSIS REQUESTED								
Sampler: <u>Lacey Trujillo</u>					<div style="display: flex; justify-content: space-between;"> <span style="writing-mode: vertical-rl; transform: rotate(180deg);">BOLIS.M</span> </div>								
SAMPLE IDENTIFICATION		SAMPLE								MATRIX		PRES.	
		DATE			TIME								
<u>#1 - 14-16'</u>		<u>6/30/98</u>			<u>0930</u>		<u>Soil</u>		<u>NONE</u>				
Relinquished by: <u>[Signature]</u>				Date/Time <u>6/30/98/0950</u>		Received by: <u>[Signature]</u>				Date/Time <u>6/30/98/1200</u>			
Relinquished by:				Date/Time		Received by:				Date/Time			
Relinquished by:				Date/Time		Received by:				Date/Time			
Method of Shipment:						Rush		24-48 Hours		10 Working Days		Special Instructions:	
Authorized by: _____						Date: _____							

OFF: (505) 325-5667



LAB: (505) 325-1556

### ANALYTICAL REPORT

Date: 10-Jul-98

<b>Client:</b> On Site Technologies, Limited Partnership	<b>Client Sample Info:</b> Basin Disposal	<i>Sample at Pit 3 for vertical Extent.</i>
<b>Work Order:</b> 9806120	<b>Client Sample ID:</b> #1 @ 14-16ft.	
<b>Lab ID:</b> 9806120-01A <b>Matrix:</b> SOIL	<b>Collection Date:</b> 6/30/98 8:30:00 AM	
<b>Project:</b> 4-1493	<b>COC Record:</b> 5166	

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: DC
T/R Hydrocarbons: C10-C28	ND	25		mg/Kg	1	7/7/98
<b>GASOLINE RANGE ORGANICS</b>		<b>SW8015</b>				Analyst: DC
T/R Hydrocarbons: C6-C10	ND	0.18		mg/Kg	1	7/7/98

**Qualifiers:**

PQL - Practical Quantitation Limit	S - Spike Recovery outside accepted recovery limits
ND - Not Detected at Practical Quantitation Limit	R - RPD outside accepted recovery limits
J - Analyte detected below Practical Quantitation Limit	E - Value above quantitation range
B - Analyte detected in the associated Method Blank	Surr: - Surrogate

On Site Technologies, LTD.

Date: 10-Jul-98

CLIENT: On Site Technologies, Limited Partnership  
Work Order: 9806120  
Project: 4-1493

**QC SUMMARY REPORT**  
Method Blank

---

Sample ID: MBlank	Batch ID: 8015DR2_S-7	Test Code: SW8015	Units: mg/Kg	Analysis Date: 7/7/98	Prep Date: 7/7/98						
Client ID:	9806120	Run ID: GC-2_980707A		SeqNo: 4188							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	ND	25									

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Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-98

CLIENT: On Site Technologies, Limited Partnership  
Work Order: 9806120  
Project: 4-1493

**QC SUMMARY REPORT**  
Laboratory Control Spike - generic

---

Sample ID: LCS	Batch ID: 8015DR2_S-7	Test Code: SW8015	Units: mg/Kg	Analysis Date: 7/7/98	Prep Date: 7/7/98						
Client ID:	9806120	Run ID: GC-2_980707A		SeqNo: 4190							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C10-C28	434.9	25	502	0	86.6%	70	130				

---

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-98

**CLIENT:** On Site Technologies, Limited Partnership  
**Work Order:** 9806120  
**Project:** 4-1493

**QC SUMMARY REPORT**  
 Continuing Calibration Verification Standard

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date	Prep Date:							
CCV CCV1 QC06	8015DR2_S-7	SW8015	mg/Kg	7/7/98								
Client ID:	9806120	Run ID:	GC-2_980707A	SeqNo:	4189							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
T/R Hydrocarbons: C10-C28	474.8	25	502	0	94.6%	85	115					
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date	Prep Date:							
CCV CCV2 QC06	8015DR2_S-7	SW8015	mg/Kg	7/7/98								
Client ID:	9806120	Run ID:	GC-2_980707A	SeqNo:	4216							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
T/R Hydrocarbons: C10-C28	441.5	25	502	0	88.0%	85	115					
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date	Prep Date:							
CCV CCV3 QC06	8015DR2_S-7	SW8015	mg/Kg	7/7/98								
Client ID:	9806120	Run ID:	GC-2_980707A	SeqNo:	4217							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
T/R Hydrocarbons: C10-C28	566.9	25	502	0	112.9%	85	115					
Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date	Prep Date:							
CCV CCV4 QC06	8015DR2_S-7	SW8015	mg/Kg	7/7/98								
Client ID:	9806120	Run ID:	GC-2_980707A	SeqNo:	4218							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
T/R Hydrocarbons: C10-C28	475.3	25	502	0	94.7%	85	115					

**Qualifiers:** ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-98

CLIENT: On Site Technologies, Limited Partnership  
Work Order: 9806120  
Project: 4-1493

**QC SUMMARY REPORT**  
Method Blank

---

Sample ID: MB1	Batch ID: GC-1_980707	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/7/98	Prep Date:						
Client ID:	9806120	Run ID: GC-1_980707A	SeqNo: 4142								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C10	.0766	0.18									J

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-98

CLIENT: On Site Technologies, Limited Partnership

Work Order: 9806120

Project: 4-1493

**QC SUMMARY REPORT**  
Laboratory Control Spike - generic

---

Sample ID: LCS Soil	Batch ID: GC-1_980707	Test Code: SW8015	Units: mg/Kg	Analysis Date 7/7/98	Prep Date:						
Client ID:	9806120	Run ID: GC-1_980707A	SeqNo: 4144								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
T/R Hydrocarbons: C6-C10	1.862	0.18	1.801	0.0766	99.2%	52	123				

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 10-Jul-98

CLIENT: On Site Technologies, Limited Partnership  
 Work Order: 9806120  
 Project: 4-1493

**QC SUMMARY REPORT**  
 Continuing Calibration Verification Standard

Sample ID:	Batch ID:	Test Code:	Units:	Analysis Date:	Prep Date:						
Client ID:	Run ID:	SeqNo:									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sample ID: <b>CCV1 QC0593</b>	Batch ID: <b>GC-1_980707</b>	Test Code: <b>SW8015</b>	Units: <b>mg/Kg</b>	Analysis Date: <b>7/7/98</b>	Prep Date:						
Client ID: <b>9806120</b>	Run ID: <b>GC-1_980707A</b>	SeqNo: <b>4143</b>									
T/R Hydrocarbons: C6-C10	1.965	0.18	1.801	0	109.1%	85	115				
Trifluorotoluene	.0858	0	0.08	0	107.3%	70	130				
Sample ID: <b>CCV2 QC0593</b>	Batch ID: <b>GC-1_980707</b>	Test Code: <b>SW8015</b>	Units: <b>mg/Kg</b>	Analysis Date: <b>7/7/98</b>	Prep Date:						
Client ID: <b>9806120</b>	Run ID: <b>GC-1_980707A</b>	SeqNo: <b>4164</b>									
T/R Hydrocarbons: C6-C10	1.924	0.18	1.801	0	106.8%	85	115				
Trifluorotoluene	.0841	0	0.08	0	105.1%	70	130				
Sample ID: <b>CCV3 QC0593</b>	Batch ID: <b>GC-1_980707</b>	Test Code: <b>SW8015</b>	Units: <b>mg/Kg</b>	Analysis Date: <b>7/7/98</b>	Prep Date:						
Client ID: <b>9806120</b>	Run ID: <b>GC-1_980707A</b>	SeqNo: <b>4165</b>									
T/R Hydrocarbons: C6-C10	2.092	0.18	1.801	0	116.2%	85	115				S
Trifluorotoluene	.0841	0	0.08	0	105.1%	70	130				
Sample ID: <b>CCV4 QC0593</b>	Batch ID: <b>GC-1_980707</b>	Test Code: <b>SW8015</b>	Units: <b>mg/Kg</b>	Analysis Date: <b>7/7/98</b>	Prep Date:						
Client ID: <b>9806120</b>	Run ID: <b>GC-1_980707A</b>	SeqNo: <b>4166</b>									
T/R Hydrocarbons: C6-C10	2.056	0.18	1.801	0	114.2%	85	115				
Trifluorotoluene	.0369	0	0.08	0	46.1%	70	130				S

Qualifiers: ND - Not Detected at the Reporting Limit  
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

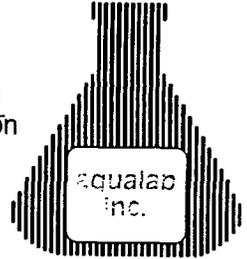
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Environmental Bureau  
Oil Conservation Division



CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
aqualab ID: 1-805-005-01

**SAMPLE IDENTIFICATION:**

135576 4/29/98

**METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

**RESULTS:**

PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	80%
Toluene-d8	91%
4-Bromofluorobenzene	100%

Chain of Custody For Aqualab  
ID# to Pit cross ref.  
Map. of Field notes.

Problem with #3 CDS Lab

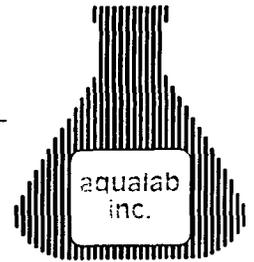
TPH 16,300 ppm

Sample Depth?

Robert V. Woods  
Laboratory Director

# aqualab inc.

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75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-02

**SAMPLE IDENTIFICATION:** 135577 4/29/98

**METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

**RESULTS:**

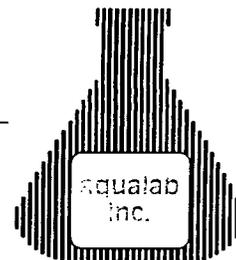
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/1/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/1/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/1/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/1/98

Surrogate:	% Recovery
Dibromofluoromethane	86%
Toluene-d8	96%
4-Bromofluorobenzene	105%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-03

## SAMPLE IDENTIFICATION:

135578 4/29/98

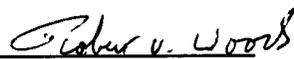
## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

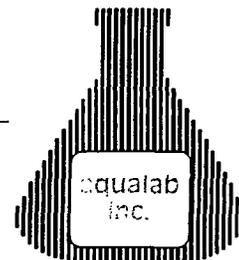
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/1/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/1/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/1/98
Total Xylenes	8260B	0.39	mg/Kg	AZ0563	5/1/98

Surrogate:	% Recovery
Dibromofluoromethane	80%
Toluene-d8	89%
4-Bromofluorobenzene	98%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
aqualab ID: 1-805-005-04

**SAMPLE IDENTIFICATION:** 135579 4/29/98

## **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## **RESULTS:**

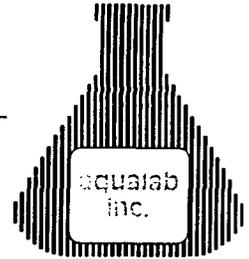
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	80%
Toluene-d8	99%
4-Bromofluorobenzene	109%

Robert V. Woods  
Laboratory Director

# aqualab inc.

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Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
aqualab ID: 1-805-005-05

**SAMPLE IDENTIFICATION:** 135580 4/29/98

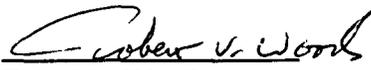
### **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

### **RESULTS:**

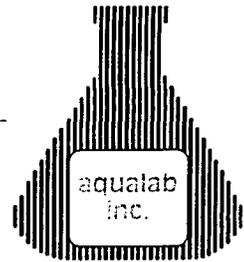
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	0.28	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	80%
Toluene-d8	90%
4-Bromofluorobenzene	100%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-06

## SAMPLE IDENTIFICATION:

135581 4/29/98

## METHOD AND QUALITY CONTROL:

\*The surrogate recovery demonstrated a sample matrix effect for this sample. This was confirmed by reanalysis.

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

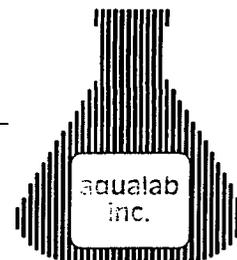
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	67**%
Toluene-d8	76**%
4-Bromofluorobenzene	92%

Robert V. Woods  
Laboratory Director

# aqualab inc.

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Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-07

## SAMPLE IDENTIFICATION:

135582 4/29/98

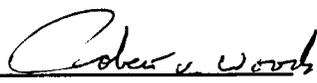
## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

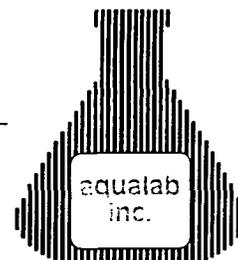
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	81%
Toluene-d8	88%
4-Bromofluorobenzene	97%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-08

## SAMPLE IDENTIFICATION:

135583 4/29/98

## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

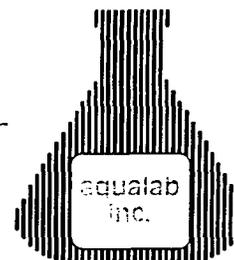
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	82%
Toluene-d8	92%
4-Bromofluorobenzene	100%

Robert V. Woods  
Laboratory Director

# aqualab inc.

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75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-09

**SAMPLE IDENTIFICATION:** 135584 4/29/98

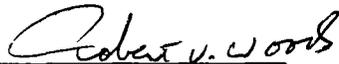
### **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

### **RESULTS:**

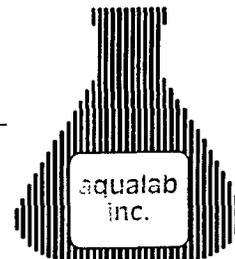
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	84%
Toluene-d8	94%
4-Bromofluorobenzene	103%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
aqualab ID: 1-805-005-10

## SAMPLE IDENTIFICATION:

135585 4/29/98

## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

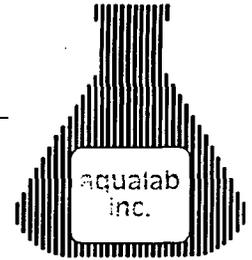
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	0.09	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	0.67	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	82%
Toluene-d8	90%
4-Bromofluorobenzene	96%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-11

**SAMPLE IDENTIFICATION:** 135586 4/29/98

### **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

### **RESULTS:**

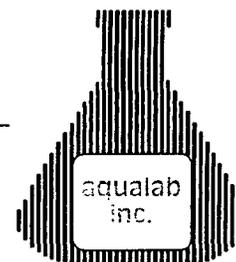
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	0.06	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	0.24	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	90%
Toluene-d8	99%
4-Bromofluorobenzene	106%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

3902 E. University Dr. #4 Phoenix AZ 85034 602-437-0979 Fax 437-0826 e-mail [aqualabUSA.com](mailto:aqualabUSA.com)



CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-12

**SAMPLE IDENTIFICATION:** 135587 4/29/98

### **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

### **RESULTS:**

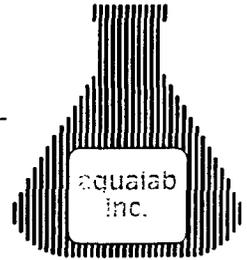
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	82%
Toluene-d8	92%
4-Bromofluorobenzene	98%

Robert V. Woods  
Laboratory Director

# aqualab inc.

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CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-13

## SAMPLE IDENTIFICATION:

135588 4/29/98

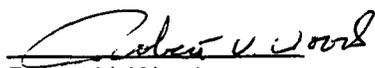
## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

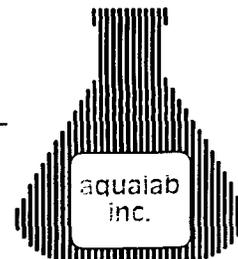
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/4/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/4/98

Surrogate:	% Recovery
Dibromofluoromethane	94%
Toluene-d8	103%
4-Bromofluorobenzene	110%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

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75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-14

**SAMPLE IDENTIFICATION:** 135589 4/29/98

### **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

### **RESULTS:**

PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/5/98

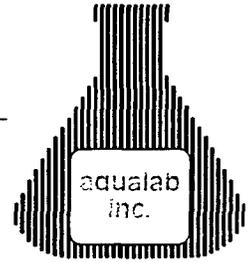
Surrogate:	% Recovery
Dibromofluoromethane	82%
Toluene-d8	89%
4-Bromofluorobenzene	94%



Robert V. Woods  
Laboratory Director

# aqualab inc.

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CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
aqualab ID: 1-805-005-15

**SAMPLE IDENTIFICATION:** 135590 4/29/98

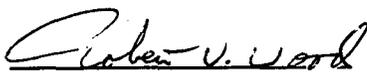
### **METHOD AND QUALITY CONTROL:**

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

### **RESULTS:**

PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/5/98

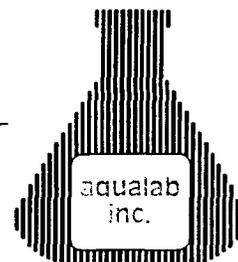
Surrogate:	% Recovery
Dibromofluoromethane	91%
Toluene-d8	100%
4-Bromofluorobenzene	106%



Robert V. Woods  
Laboratory Director

# aqualab inc.

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CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-16

## SAMPLE IDENTIFICATION:

135591 4/29/98

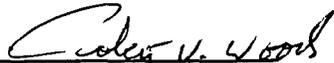
## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

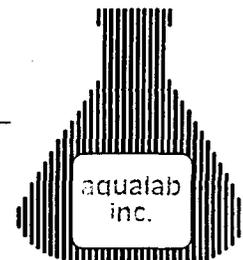
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/5/98

Surrogate:	% Recovery
Dibromofluoromethane	93%
Toluene-d8	104%
4-Bromofluorobenzene	111%

  
Robert V. Woods  
Laboratory Director

# aqualab inc.

3902 E. University Dr. #4 Phoenix AZ 85034 602-437-0979 Fax 437-0826 e-mail [aqualabUSA.com](mailto:aqualabUSA.com)



CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
**aqualab ID:** 1-805-005-17

## SAMPLE IDENTIFICATION:

135592 4/29/98

## METHOD AND QUALITY CONTROL:

The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## RESULTS:

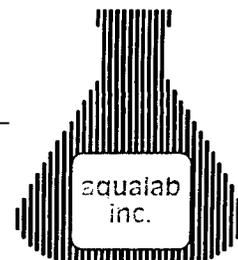
PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/5/98

Surrogate:	% Recovery
Dibromofluoromethane	88%
Toluene-d8	98%
4-Bromofluorobenzene	104%

Robert V. Woods  
Laboratory Director

# aqualab inc.

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CDS Laboratories  
75 Suttle Street  
Durango, CO 81301  
Attn: Traci Haber

Received: 5/1/98  
Reported: 5/11/98  
aqualab ID: 1-805-005-18

**SAMPLE IDENTIFICATION:** 135593 4/29/98

## **METHOD AND QUALITY CONTROL:**

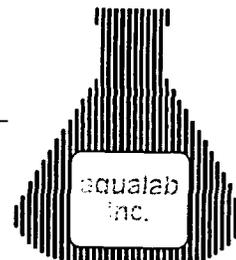
The results in this report were generated using approved methods referenced by the U.S. EPA and the Arizona Department of Health Services.

## **RESULTS:**

PARAMETER	METHOD	RESULT	UNITS	ADHS NO.	ANALYZED
Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Ethyl Benzene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Toluene	8260B	<0.05	mg/Kg	AZ0563	5/5/98
Total Xylenes	8260B	<0.10	mg/Kg	AZ0563	5/5/98

Surrogate:	% Recovery
Dibromofluoromethane	91%
Toluene-d8	100%
4-Bromofluorobenzene	105%

Robert V. Woods  
Laboratory Director



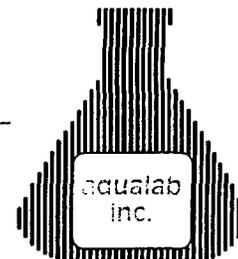
## QUALITY CONTROL DATA -- VOLATILES

Matrix: Soil  
Units: mg/kg

aqualab ID: 1-805-005  
Reported: 5/11/98

PARAMETER	EPA METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE AMOUNT	SPIKE RESULT	PERCENT RECOVERY	DUPLICATE RESULT	PERCENT RECOVERY	RPD	DATE ANALYZED
1,1-DCE	8260B	Blank	<0.05	2.5	2.3	92%	NA	NA	NA	5/4/98
TCE	8260B	Blank	<0.05	2.5	2.4	96%	NA	NA	NA	5/4/98
Chlorobenzene	8260B	Blank	<0.05	2.5	2.4	96%	NA	NA	NA	5/4/98
Toluene	8260B	Blank	<0.05	2.5	2.4	96%	NA	NA	NA	5/4/98
Benzene	8260B	Blank	<0.05	2.5	2.4	96%	NA	NA	NA	5/4/98

Samples Linked: 1-805-005 (04-12)



## QUALITY CONTROL DATA -- VOLATILES

Matrix: Soil  
Units: mg/kg

aqualab ID: 1-805-005  
Reported: 5/11/98

PARAMETER	EPA METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE AMOUNT	SPIKE RESULT	PERCENT RECOVERY	DUPLICATE RESULT	PERCENT RECOVERY	RPD	DATE ANALYZED
1,1-DCE	8260B	1-805-005-1	<0.05	2.5	2.2	88%	1.7	68%	26	5/4/98
TCE	8260B	1-805-005-1	<0.05	2.5	2.3	92%	2.1	84%	9	5/4/98
Chlorobenzene	8260B	1-805-005-1	<0.05	2.5	2.4	96%	2.2	88%	9	5/4/98
Toluene	8260B	1-805-005-1	<0.05	2.5	2.3	92%	2.2	88%	4	5/4/98
Benzene	8260B	1-805-005-1	<0.05	2.5	2.3	92%	2.0	80%	14	5/4/98

Samples Linked: 1-805-005 (04-12)

RECEIVED

JAN 19 1999

Environmental Bureau  
Oil Conservation Division

75 Suttle Street Durango CO 81301

c d s

LABORATORIES

an affiliate of aqualab inc.

970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #1

Date Login: 04/30/98

Date Rec'd: 04/30/98

Depth?  
≈ 5' ft.

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135576

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	< 20	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C Fenwick

Checked By: JH



75 Suttle Street Durango CO 81301

# LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn: KEITH JOHNSON

Sample ID : SAMPLE #2

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135577

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	< 20	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C. Fenwick*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

# LABORATORIES

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970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #3

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135578

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	16300	ppm	EPA 418.1	20	
Xylene (total)	0.39	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C. J. Jendel Checked By: JH



75 Suttle Street Durango CO 81301

LABORATORIES

an affiliate of aqualab inc.

970-247-4220 Fax 247-4227

Attn:KEITH JOHNSON

Sample ID : SAMPLE #4

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135579

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	60	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C Fenwick

Checked By: JH



75 Suttle Street Durango CO 81301

# LABORATORIES

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970-247-4220 Fax 247-4227

Attn:KEITH JOHNSON

Sample ID : SAMPLE #5

BASIN DISPOSAL

Date Login: 04/30/98

PO BOX 100

Date Rec'd: 04/30/98

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135580

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	110	ppm	EPA 418.1	20	
Xylene (total)	0.28	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C Jensen

Checked By: JH

# c d s

75 Suttle Street Durango CO 81301

## LABORATORIES

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970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #6

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135581

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	2650	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C Finemud

Checked By: JH



75 Suttle Street Durango CO 81301

# LABORATORIES

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Attn: KEITH JOHNSON

Sample ID : SAMPLE #7

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135582

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	30	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C. Fenwick*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

# LABORATORIES

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970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #8

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135583

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	< 20	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C. Juendel

Checked By: JH



75 Suttle Street Durango CO 81301

LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn:KEITH JOHNSON

Sample ID : SAMPLE #9

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135584

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	40	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C. Finendich

Checked By: JH



75 Suttle Street Durango CO 81301

# LABORATORIES

an affiliate of aqualab inc.

970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #10

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135585

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
* Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	0.09	ppm	EPA 8260	0.05	
* Total Petroleum Hydrocarbons	1230	ppm	EPA 418.1	20.0	
* Xylene (total)	0.67	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C Finendel*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn:KEITH JOHNSON

Sample ID : SAMPLE #11

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135586

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	0.06	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	2900	ppm	EPA 418.1	20.0	
Xylene (total)	0.24	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C Fenwick*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

# LABORATORIES

an affiliate of aqualab inc.

970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #12

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135587

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	120	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C Fenendil*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

LABORATORIES  
an affiliate of aqualab inc.

970-247-4220 Fax 247-4227

Attn: KEITH JOHNSON

Sample ID : SAMPLE #13

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135588

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	< 20	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C Fenwick

Checked By: JH



75 Suttle Street Durango CO 81301

# LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn:KEITH JOHNSON

Sample ID : SAMPLE #14

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135589

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	110	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C Fenwick*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

LABORATORIES

an affiliate of aqualab inc.

970-247-4220 Fax 247-4227

Attn:KEITH JOHNSON

Sample ID : SAMPLE #15

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135590

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	30	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C. Ferrell*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

# LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn: KEITH JOHNSON

Sample ID : SAMPLE #16

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #: A98-135591

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	60	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C. J. Ferrell

Checked By: JH



75 Suttle Street Durango CO 81301

LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn:KEITH JOHNSON

Sample ID : SAMPLE #17

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135592

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	30	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By:

*C. Fenwick*

Checked By:

*JH*



75 Suttle Street Durango CO 81301

LABORATORIES

970-247-4220 Fax 247-4227

an affiliate of aqualab inc.

Attn:KEITH JOHNSON

Sample ID : SAMPLE #18

Date Login: 04/30/98

Date Rec'd: 04/30/98

BASIN DISPOSAL

PO BOX 100

AZTEC

NM 87410

SAMPLE COLLECTION:

Date/Time/By:

Location:

CDS Lab #:A98-135593

ANALYTICAL REPORT

Report Date 05/18/98

Testname	Result	Units	Method	DL	MCL
Silver, TCLP	< 1	ppm	EPA200.7	1	5
Arsenic, TCLP	< 1	ppm	SM3113B	1	5
Barium, TCLP	< 10	ppm	EPA200.7	10	100
Benzene	< 0.05	ppm	EPA 8260	0.05	
Cadmium, TCLP	< 0.5	ppm	EPA200.7	0.5	1.0
Chromium, TCLP	< 1	ppm	EPA200.7	1	5
Ethylbenzene	< 0.05	ppm	EPA 8260	0.05	
Mercury, TCLP	< 0.01	ppm	EPA245.1	0.01	0.20
Lead, TCLP	< 1	ppm	EPA200.7	1	5
Selenium, TCLP	< 0.5	ppm	SM3113B	0.5	1.0
Toluene	< 0.05	ppm	EPA 8260	0.05	
Total Petroleum Hydrocarbons	180	ppm	EPA 418.1	20	
Xylene (total)	< 0.10	ppm	EPA 8260	0.10	
TCLP Extract					

Approved By: C Fenwick

Checked By: JH

# CHAIN OF CUSTODY RECORD

# CDS LABORATORIES

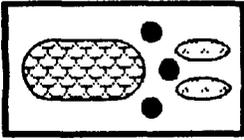
Durango, CO 81302

Client: <b>Basin Disposal</b>	Project Identification	ANALYSES REQUESTED	Sampling Notes
	Description of Seal		
Report Address <b>Keith Johnson</b>	Billing Address	TPH BTEX RCPA metals Trip Extract-	
<b>PO Box 100</b>			
<b>AZTEC, NM 87410</b>			
Phone <b>(505) 325-6336</b>	Fax <b>(505) 325-6567</b>		

Sample Number Identification	Date	Time	Lab Number	Matrix	TPH	BTEX	RCPA	metals	Trip Extract-	Remarks
<b>Sample # 1-18</b>			<b>135576-</b>		X	X	X			
			<b>135588-</b>							
			<b>135593</b>							

Sampled by: (Signature) _____ (Printed) _____	Date	Time	Received by: (Signature) _____ (Printed) _____	Date	Time
	Sealed	Y/N		Sealed	Y/N
Relinquished by: (Signature) _____ (Printed) _____	Date	Time	Received by: (Signature) _____ (Printed) _____	Date	Time
	Sealed	Y/N		Sealed	Y/N
Relinquished by: (Signature) _____ (Printed) _____	Date	Time	Received by CDS Laboratories (Signature) <b>TRACI HABER</b> (Printed) _____	Date	Time
	Sealed	Y/N		Sealed	Y/N

<b>CDS LABORATORIES</b> 75 Suttle Street P.O. Box 2605 Durango, CO 81302-2605 (970) 247-4220 FAX (970) 247-4227	No <b>16862</b>	PURCHASE ORDER # or CONTRACT # _____ I authorize the requested laboratory Services to be performed and billed to the reference contract or purchase order, or to be billed to: _____
		Signed: _____ Dated _____



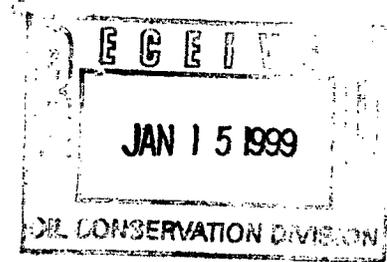
# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

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

January 12, 1999

Oil Conservation Division  
Martyne Kieling  
2040 S. Pacheco  
Santa Fe, NM 87505-5472



RE: Repermitting of Basin Disposal

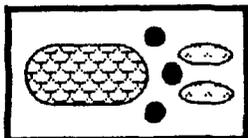
Dear Martyne,

At our last meeting this past summer you and Roger suggested that we should include in this permit a request to include in our permitted area a portion of the land directly to the north of us. I have included it in my map of our facility, which I have attached to this letter. We have a request that I will be calling you about in the next few days for a temporary use of that parcel that will enable us to completely clean the pond this spring or summer. We are also waiting for an engineer for PESCO to complete a design of a oil/sediment/water separator. I have also included a new copy of our H2S contingency plan and the soil tests from the buried pits. If you have any questions please call me. Thank you very much for all of your help.

Sincerely,

Keith Johnson  
General Manager

cc: Denny Foust



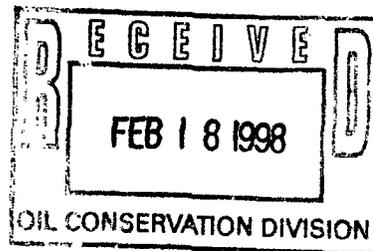
# BASIN DISPOSAL, INC.

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

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

February , 1998

Mr. Roger Anderson  
New Mexico Oil Conservation Division  
Environmental Bureau  
2040 S. Pacheco St.  
Santa Fe, NM 87505-5472



RE: Replacing Hot Oil Truck with a Permanent Tank.

Dear Mr. Anderson:

Basin Disposal requests approval to build a 500 bbl. tank for heat treating oil. This will replace the truck we are using at this time. The new tank will use a propane burner to heat the oil. I have enclosed a diagram of the facility to show where it will be placed and a drawing of the tank and burner. The area around the tank will be bermed and lined with gravel.

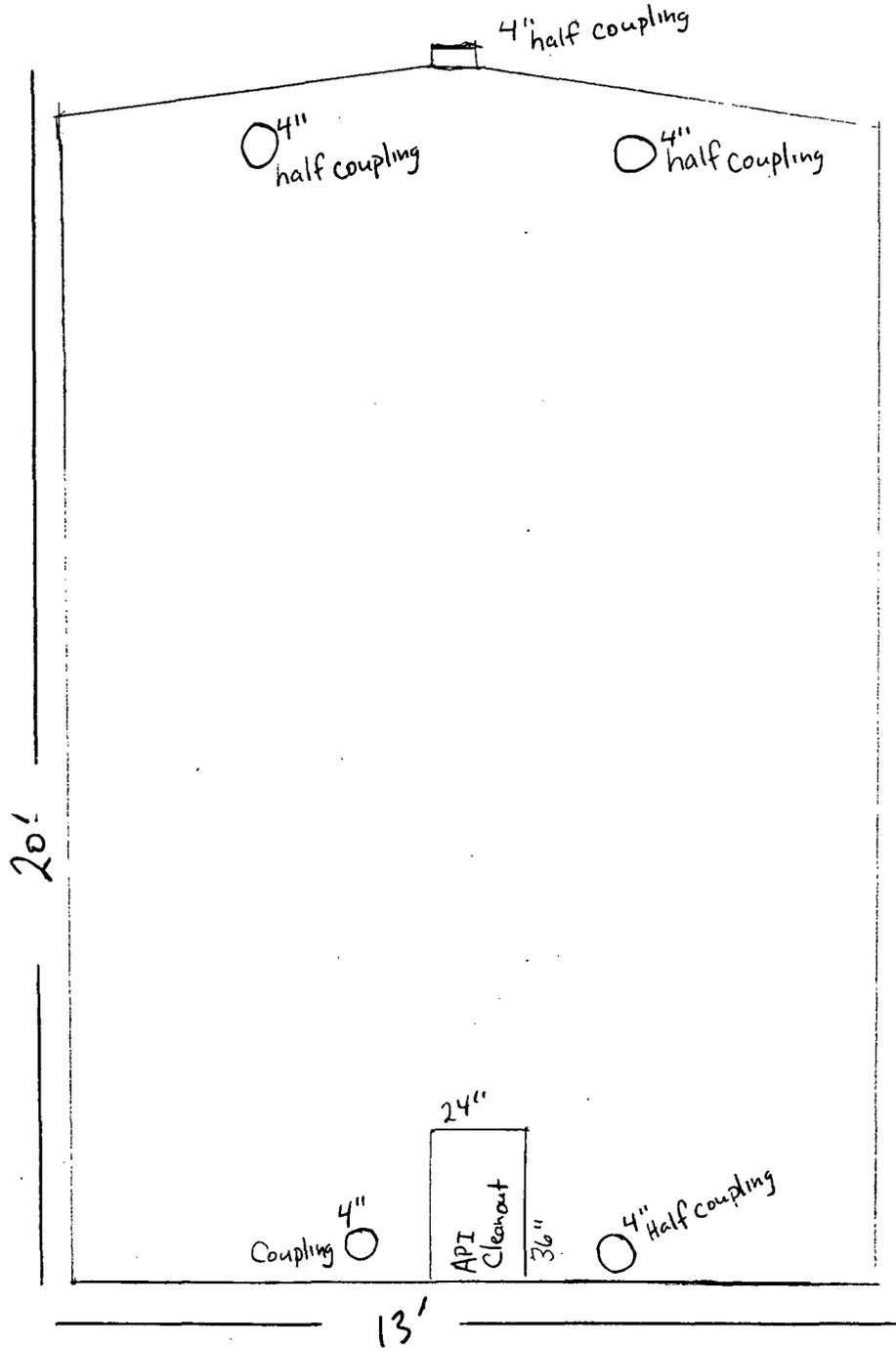
If you have any questions, please call me at 325-6336. Written comments can be faxed at 325-6567.

Sincerely,

Keith Johnson  
General Manager

cc: Mr. Jerry Sandel  
Mr. David Turner  
Mr. Denny Foust, NMOCD

# BASIN DISPOSAL'S HOT OIL TANK 500 BARRELS



# Propane Burner

DASH NO.	DIM A
-1	148"
-2	

BILL OF MATERIALS		
ITEM NO.	DESCRIPTION	MATERIAL
1	1 CLEANOUT COVER STD API 24 X 36	SA53BE
2	2 PIPE, 8" X .250" ERW X 'A' LG MOE 45°	SA53BE
3	1 PIPE, 8" X .250" ERW X 13" LG MBE 45°	SA53BE
4	2 FLANGE PER P-001-3	
5	2 HALF COUPLING, 1" 3000# FS	SA105
6	1 HALF COUPLING, 2" 3000# FS	SA105
7	1 PIPE, 2" STD ERW X 4" LG MOE 45°	SA53BE
8	1 PIPE, 2" STD ERW X 30" LG MOE 45°	SA53BE
9	1 FLAT BAR, 1/4" X 2" X 2 13/16" LG	SA36
10	1 ROLLER ASSEMBLY (ITEMS 11-13)	
11	1 PLATE, 1/2" X 13" X 7 5/8" BURN AS SHOWN	SA36
12	1 ROUND, 3/4" X 4" LG	SA36
13	1 PLATE, 1/2" X 4" OD X 7/8" ID	SA36
14	1 PILOT IGNITOR PORT PER P-009	

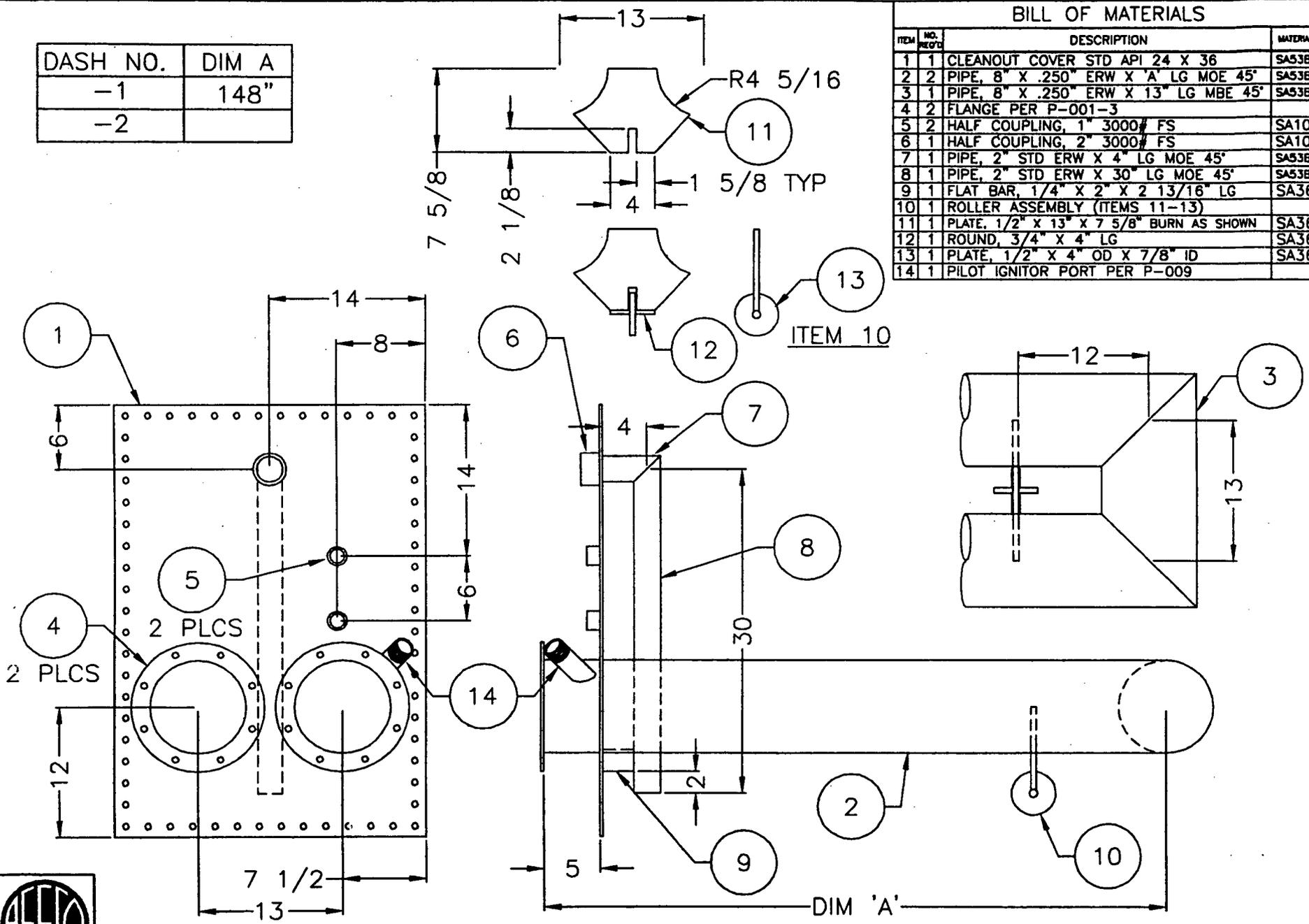
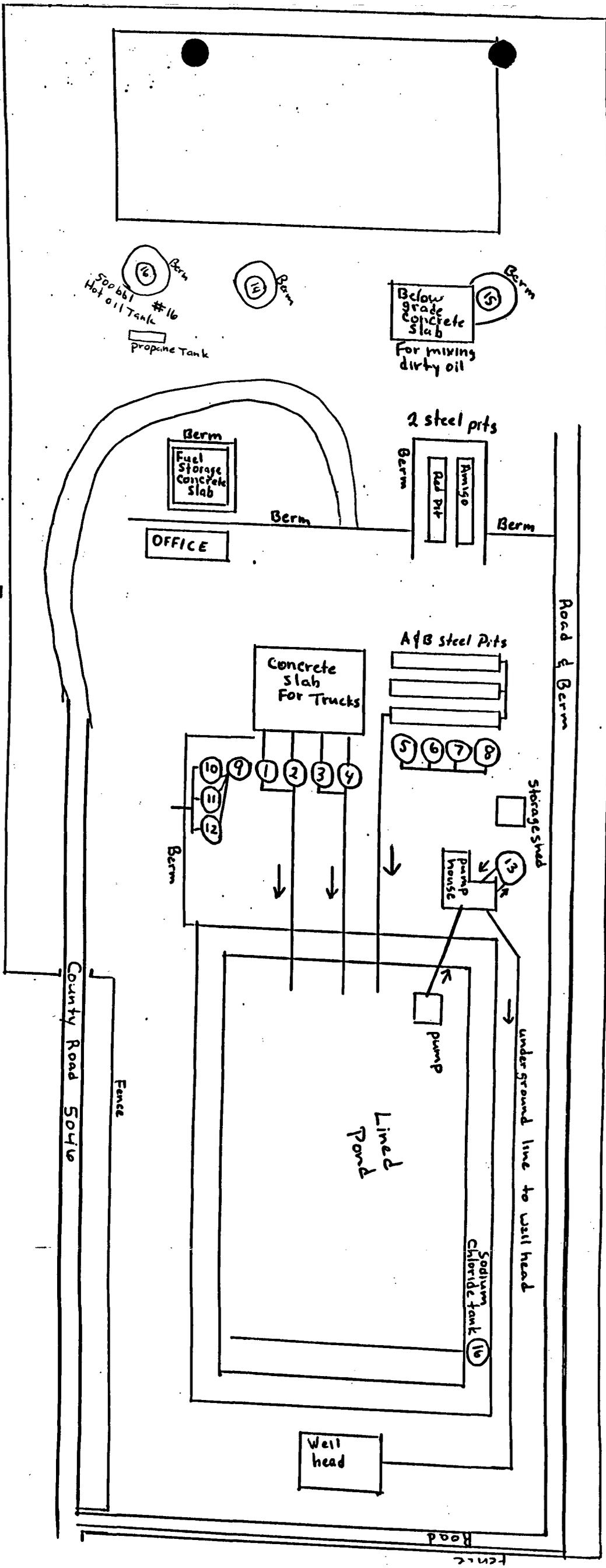


Exhibit F

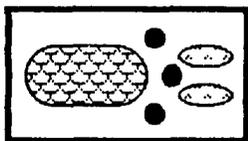
Tank #16 is New Hot Oil Tank Fence



Fence

Road & Berm

Road  
Fence



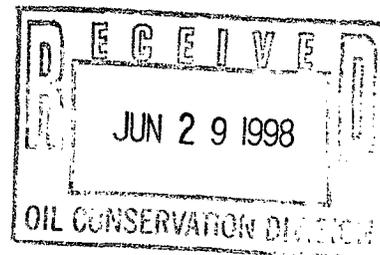
# **BASIN DISPOSAL, INC.**

"SPECIALIZING IN DISPOSAL OF PRODUCED WATER AND DRILLING MUD"

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

June 25, 1998

New Mexico Oil Conservation Division  
Martyne J. Kieling  
Environmental Bureau  
2040 So. Pacheco St.  
Santa Fe, NM 87505-5472



RE: Bermed and lined pit for sludge

Dear Ms. Kieling,

Basin Disposal requests approval to build a lined and bermed pit that we can put the sludge from cleaning our pond until it dries. It will be about 3 feet deep. This will be just a temporary improvement and we will remove it as soon as possible.

If you have any questions please call me at (505) 325-6336 or 632-8936. A copy can be FAXed to (505) 632-2215.

Sincerely,

Keith Johnson  
General Manager

cc: Mr. Jerry Sandel  
Mr. David Turner  
Mr. Denny Foust, NMOCD

MEMORANDUM OF MEETING OR CONVERSATION

<input checked="" type="checkbox"/> Telephone	<input type="checkbox"/> Personal	Time 1:45	Date 6/4/98
<u>Originating Party</u>		<u>Other Parties</u>	
Denny Foutz      OCD      Aztec # 320-0200 mobile		Martyne Kiehl      OCD Santa Fe	
<u>Subject</u> Basin Disposal odor			

Discussion  
Denny was called out ~~at~~ Last Night 6/3/98 to Investigate odor From Basin Disposal. The Smell Has been Reported Since Last week  $\approx$  5/25/98. H<sub>2</sub>S Monitoring Show No H<sub>2</sub>S. Smell is Sour water / Hydrocarbon <sup>Produced water</sup> odor. Things that could be done suggested by Denny 1) Lower Pond 2) add chemical to Bottom 3) Inject Air to the Bottom (Turn Pond over) 4) Move Injection well pump Inlet to the opposite corner than The Inlet pipe from Receiving tanks. 5) Stop Receiving water or Slow Recival of water.

Conclusions or Agreements  
Residence are upset about the odor.   
Air Quality Distritic Rep Has been Informed twice. Should try and call Jerry Sandel tomorrow when Roger A. Gets Back.  
Review Permit one more time. Require Removal of oil

H<sub>2</sub>S Prevention 4. Dissolved Oxygen -

Distribution  
3, 6, 4<sub>2</sub>

Signed  
Martyne J Kiehl



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

June 1, 1998

*July 1 MK*

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-458**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Basin Disposal, Inc. Surface Waste Management Facility NM-01-0005  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) has received Basin Disposal, Inc. letter dated June 25, 1998 regarding a request to build a temporary lined and bermed sludge drying pit at the above referenced location. The request for a temporary pit is hereby approved with the following conditions:

1. The temporary pit is authorized for 180 days from the date of this approval.
2. The pit liner shall be a minimum of a 12 mm plastic.
3. The pit will be bermed and maintained to prevent run-on and run-off.
4. The pit will be no more than 3 feet deep.
5. The dry pit sludge will be removed to an OCD approved disposal facility.
6. The pit liner will be disposed of appropriately and the site regraded to prevent any ponding of precipitation.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling  
Environmental Geologist

xc: Aztec OCD Office



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87506  
(505) 827-7131

April 24, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-420**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Basin Disposal, Inc. Evaporation Pond and Treating Plant  
Inspection and Permit Application Review (NM-01-0005)  
SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico**

Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD) has received and is in the process of reviewing the above referenced inspection and permit application information for an oil field related commercial treating plant and evaporation pond located in the SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM, San Juan County, New Mexico. The following comments and requests for additional information are based on review of the application, dated November 5, 1997, additional information provided February 18, 1998 and our discussions at Basin Disposal on April 21, 1998.

In order for the review process to continue the OCD requires Basin Disposal, Inc. to submit the additional information requested in Attachment 1. Submission of the above requested information will allow the review process to continue.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling  
Environmental Geologist

xc with attachments:  
xc: Aztec OCD Office

**ATTACHMENT 1  
REQUEST FOR ADDITIONAL INFORMATION  
APRIL 24, 1998  
BASIN DISPOSAL, INC.**

**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,  
San Juan County, New Mexico.**

1. Sections one, two, three, four, five, six, seven, eight, and nine (1, 2, 3, 4, 5, 6, 7, 8 and 9 Application Form C-137;
  - A. Basin Disposal, Inc. (Basin Disposal) has completed sections one, two, three, four, five, six, seven, eight, and nine (1, 2, 3, 4, 5, 6, 7, 8 and 9).
  
2. Section ten (10) Application Form C-137;
  - A. The closure plan that Basin Disposal has submitted is higher than that calculated by the OCD. The OCD closure cost estimate was based upon a 52 acre facility with seventeen (17) above ground tanks, five (5) steel pits, one (1) lined evaporation pond, one (1) below grade concrete solidification pit, and three (3) buildings. The OCD cost breakdown is in Attachment 2.

Any future additions, modifications or changes to the facility may result in a new closure cost and an increase or decrease in financial assurance. The five (5) year permit review and facility inspection may require additional preventative measures to protect human health or environmental re modifications of the facility and permit to be environmentally an increase or decreased in the financial assurance amount
  
3. Sections eleven and twelve (11 and 12) Application Form C-137;
  - A. Basin Disposal has completed sections eleven and twelve (11 and 12).
  
4. Section thirteen (13) Application Form C-137;
  - A. Basin Disposal shall incorporate the following additions (**in bold**) into the H<sub>2</sub>S prevention and contingency plan submitted.
    1. All incoming loads of produced water will be tested for hydrogen sulfide (H<sub>2</sub>S) concentrations. **Any loads with measurable H<sub>2</sub>S concentrations will be treated in a closed system. The treatment reaction will be driven to completion to eliminate all measurable H<sub>2</sub>S prior to disposal into the pond.**

2. **Daily tests will be conducted and records made of the pH in the pond. If the pH falls below 8.0, remedial steps will be taken immediately to raise the pH to 8.0.**
3. **Weekly test will be conducted and records made of the dissolved sulfide concentrations in the pond.**
4. The aeration system will be operated to provide sufficient oxygen to the pond to maintain a residual oxygen concentration of 0.5 ppm one foot off the bottom of the pond. Tests will be conducted and records made to determine the dissolved oxygen levels in the pond according to the following procedure:
  - a. Test will be conducted at the beginning of each day, or at least once per 24 hour period;
  - b. The sample for each test will be taken one foot from the bottom of the pond;
  - c. The location of each test will vary around the pond;
  - d. If any test shows a dissolved residual oxygen level of less than 0.5 ppm, immediate steps will be undertaken to oxygenate the pond and create a residual oxygen level to at least 0.5 ppm. Remedial measures may include adding chemicals or increased aeration.
5. **Test of ambient H<sub>2</sub>S levels will be conducted and records made. Such tests will be made at varying locations around the berm of the pond. Tests will be conducted twice per day. The wind speed and direction will be recorded in conjunction with each test.**
6. If an H<sub>2</sub>S reading of 0.1 ppm or greater is obtained:
  - a. A second reading will be taken on the down wind berm within one hour;
  - b. The dissolved oxygen and dissolved sulfide levels of the pond shall be tested immediately and the need for immediate treatment determined;
  - c. Tests for H<sub>2</sub>S levels will be made at the fence line,

downwind from the pond.

7. If two consecutive H<sub>2</sub>S readings of 0.1 ppm or greater are obtained:
    - a. The operator will notify the OCD Aztec Office immediately;
    - b. The operator will commence hourly monitoring on a 24-hour basis;
    - c. **The operator will obtain daily analysis of dissolved sulfides in the pond.**
  
  8. If an H<sub>2</sub>S reading of 10.0 ppm or greater at the facility fence line is obtained:
    - a. The operator will **immediately** notify the OCD Aztec office and the following public safety agencies.  
  
**State Police**  
**Bloomfield Police**  
**County Sheriff**  
**Fire Department**
    - b. The operator will initiate notification of all persons residing within one-half (1/2) mile of the fence line and assist public safety officials with evacuation as requested.
  
  9. At least 1000 gallons of a treatment chemical will be stored on-site and will not be retained for a period in excess of the manufacturer's stated shelf life. Expired chemicals may be disposed of in the pond.
5. Section fourteen (14) Application Form C-137;
- A. Basin Disposal shall submit analytical results for the final closure of the eighteen (18) mud/oil pits that were located on the upper west end of the facility. One soil sample shall be taken from the center of each pit location at approximately five (5) feet bgs. The material sampled should characterize the materials left in place above the liners of the former pits. The soil analysis shall include total petroleum hydrocarbons (TPH); benzene, toluene, ethyl benzene, and xylene (BTEX); and RCRA TCLP metals (arsenic, barium, cadmium,

chromium, lead, mercury selenium, silver).

Upon receipt of this information the OCD shall make a determination as to whether additional samples are required to determine extent of potential contamination or if the material may be left in place. The current financial assurance estimate included within (Attachment 2) does not include remedial action on the 18 mud/oil pits.

- B The current temporary frac tanks that are at the upper west end of the facility will be included in the new permit as temporary and must be either added to the permit or removed within 180 days of the new permit approval date.
6. Section fifteen (15) Application Form C-137;
- A. Basin Disposal has completed section fifteen (15).

**ATTACHMENT 2**  
**OCD Environmental Bureau Closure Cost Estimate**  
**For**  
**Basin Disposal, Inc. Treating Plant and Evaporation Pond**

**Electricity Required for Water Disposal**  
**Basin Disposal Estimated Costs**

30 days of Pumping Operations = **\$7,000.00 Electricity**

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**Personnel for Water Disposal**  
**Basin Disposal Estimated Costs**

2 personnel for 24 hours a day for 30 days = **\$14,400.00 Water Disposal**

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**Filters**  
**Basin Disposal Estimated Costs**

36 filter/day for 30 days = **\$3,000.00 Filters**

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**Removal of Piping and Roustabout Costs**

= **\$15,000.00 Piping Removal**

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**Analytical Analysis for site characterization**

**State Contract Laboratory Prices per analysis:**

BTEX	\$ 40.00	x 40 samples	= \$1,600.00
TPH	\$ 50.00	x 40 samples	= \$2,000.00
Metals	\$200.00	x 40 samples	= <u>\$8,000.00</u>
			<b>\$11,600.00 Analytical</b>

---

**Quarterly Sampling Time and Labor for 40 samples**

Labor 2 personnel \$55.00/hour  
Sample 30 min per sample  
Travel 2 hour  
Delivery & Paperwork 2 hours

Total Time = (30 min/sample x 40 samples) + 2 hour + 2 hours = 24 hours

24 hours x \$55.00/hour x 2 persons = **\$2,640.00 Sampling Event**

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**Removal of 500<sup>yd3</sup> of residual contaminated Soil to a Local OCD Permitted Landfarm**

**Price and Time Quotes from Equipment Operators: Approximately 13 truck loads.**

410 Backhoe and operator	\$45.00/hour	x	30 hours	=	\$1,350.00
950 loader and operator	\$75.00/hour	x	30 hours	=	\$2,250.00
24 yd <sup>3</sup> Dump Truck and operator	\$75.00/hour	x	30 hours	=	\$2,250.00

**\$5,850.00 Removal of Soil**

---

**Disposal of 500<sup>yd3</sup> of residual contaminated Soil to a Local OCD Permitted Landfarm**

**Price Quotes from Landfarm Operators:**

volume of soil = 500 yd<sup>3</sup>  
Price /yd<sup>3</sup> = \$18.00 / yd<sup>3</sup>

\$18.00/yd<sup>3</sup> x 500 yd<sup>3</sup> = **\$9,000.00 Disposal of Soil**

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**Level and Contour Pit and Remove 17 Tanks and 6 Steel Pits**

**Price from Basin Disposal**

= **\$25,000.00 Level, Contour and Remove**

Basin Disposal, Inc  
Closure Cost Estimate.  
April 24, 1998  
Page 3

**Reseeding for 53 Acres**

**Price and application Quotes from Seed Companies**

Equipment and labor cost

Tractor and seed drill \$40.00/hour @ 30 min/acre for 53 acres = \$1,080.00

Materials Cost

Seed \$10.00/lb @ 5 lb/acre for 53 acres = \$2,650.00

\$1,080.00 + \$2,650.00 = **\$3,730.00 Reseeding**

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**Total Closure and Reseeding Cost of Basin Disposal's 53 acre facility = \$97,220.00**

**Closure cost bonds will be no more than \$250,000.00 per existing facility as per Rule 711.**



NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

March 12, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-326-936-404**

Mr. Jerry Sandel  
Basin Disposal, Inc.  
P.O. Box 100  
Aztec, New Mexico 87401

**RE: Basin Disposal, Inc.**  
**Request For Minor Permit Modification Permit (NM-01-0005)**  
**SE/4 NW/4 of Section 3, Township 29 North, Range 11 West, NMPM,**  
**San Juan County, New Mexico**

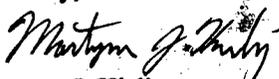
Dear Mr. Sandel:

The New Mexico Oil Conservation Division (OCD), has reviewed Basin Disposal, Inc. (Basin Disposal) letter requesting a minor permit modification to facility operations dated on February, 1997. The new tank will be installed according to new tank installation requirements stipulated in Basin Disposal's inspection report for June 10, 1997. Basin Disposal's request to replace the hot oil truck with at permanent tank is hereby approved with the following conditions:

1. **Above Ground Tanks:** All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm so that leaks can be identified.
2. **Below Grade Tanks/Sumps:** All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing and/or visual inspection of cleaned out tanks or sumps, or other OCD approved methods.

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

  
Martyne J. Kieling  
Environmental Geologist

xc: Aztec OCD Office

From Basin Disposal

\*\*\*\*\*

Date

Dear \_\_\_\_\_:

Farmington, New Mexico, for the account of \_\_\_\_\_ up to an amount not to exceed \$ \_\_\_\_\_ available by your drafts at site.

Letter of Credit # \_\_\_\_\_.

Each draft must be accompanied by [statement] [affidavit] [promissory note] [etc.].

We will have at least ten (10) days to examine documents and to honor or give notice of dishonor.

This letter of credit expires on \_\_\_\_\_ or one year from date hereof and may be extended for an additional period of one year by mutual agreement of the parties as shown by an instrument in writing executed by both parties and furnished to you prior to the expiration date.

We hereby agree with the drawee, endorser and bona fide holders of all such drafts drawn under and in compliance with the terms of this letter of credit that such drafts will be honored upon presentation to the drawee accompanied by the required documents.

Except to the extent otherwise expressly provided herein, this letter of credit is subject to the provisions of the Uniform Customs and Practice for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, which is incorporated into the text of this letter of credit by this reference, and to the extent not inconsistent therewith, to the Law of the State of New Mexico, including Article 5 of the New Mexico Uniform Commercial Code.

Sincerely yours,

CITIZENS BANK

By \_\_\_\_\_

DAVID TURNER  
President

PHONES:  
(505) 325-1845 & 325-2370

# CHIEF TRANSPORT CO.

WATER & WASTE TREATMENT AIR SERVICE

P. O. BOX 358 • OFFICE BUILDING #20 • 604 WEST PINON  
FARMINGTON, NEW MEXICO 87499

## FAX MESSAGE COVER SHEET

DATE: 11/5/97  
TO: MAN CCD  
ATTN: Roger OR MAN TCC

TRANSMISSION CONSISTS OF COVER SHEET PLUS 1 PAGES.

MESSAGES:

IF THERE IS ANY PROBLEM WITH THIS TRANSMISSION, PLEASE CALL  
(505) 325-1845.

SIGNED: \_\_\_\_\_



Basin Disposal

6/10/97



Basin Disposul

6/10/97



Basin Disposal  
6/10/97



Basin Disposal

6/10/97



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Basin Disposal

6/10/97

Treating Plant / Evap Pond



Basin Disposal

6/10/97

Treating Plant / Evap Pond

JUN 25 4 38 PM '87

*Lucia M. Sanchez*  
COUNTY OF SAN JUAN

STATE OF NEW MEXICO

IN THE DISTRICT COURT

STATE OF NEW MEXICO; TIMOTHY PAYNE,  
individually and as next friend of,  
DOUGLAS BURKE SHIP, LYNN D. PAYNE  
and AMANDA J. PAYNE; TERESA L. PAYNE;  
MAC MANTLE; LILA SAIZ; PAT HARGISS;  
TERRY CRAWFORD, individually and as  
next friend of, TIMOTHY CRAWFORD,  
JESSICA CRAWFORD and JENNIFER CRAWFORD;  
and JUDY CRAWFORD,

Plaintiffs,

vs.

No. CV 87-569-3

BASIN DISPOSAL INC., a New Mexico  
corporation; JERRY SANDEL, individually  
and as an officer and director of Basin  
Disposal; D. C. TURNER, individually  
and as an officer and director of Basin  
Disposal; DAVID TURNER, individually and  
as an officer and director of Basin Disposal;  
CHIEF TRANSPORT CO., a New Mexico  
corporation, SSS TRUCKING, a New Mexico  
corporation; JOHN DOE TRUCKING COMPANIES  
#I, II, and III; and JOHN DOES #IV, V and VI.

Defendants.

**FIRST AMENDED COMPLAINT FOR INJUNCTIVE RELIEF;  
FOR PERSONAL INJURY AND PROPERTY DAMAGE**

COME NOW the Plaintiffs and for their cause state:

1. Plaintiffs are residents of San Juan County, New Mexico.
2. Defendant, Basin Disposal Inc., is a New Mexico corporation doing business in San Juan County, New Mexico.
3. Defendants Jerry Sandel, D. C. Turner and David Turner, are individuals residing in San Juan County and officers and

directors of Defendant, Basin Disposal.

4. Defendant Chief Transport Co. is, on information and belief, a New Mexico corporation having its principal place of business in San Juan County, New Mexico.

5. Defendant SSS Trucking is, on information and belief, a New Mexico corporation having its principal place of business in San Juan County, New Mexico.

6. Defendants John Doe Trucking Companies #I, II and III are, information and belief, business organizations doing business in San Juan County, New Mexico.

7. Individual John Does #IV, V and VI are employees of the corporate Defendants performing services as truck drivers in San Juan County, New Mexico.

8. The State of New Mexico is named as a party Plaintiff pursuant to Section 30-8-8, N.M.S.A. 1978 (Rep.Pamp. 1984).

#### COUNT I - PETITION FOR INJUNCTIVE RELIEF

1. Plaintiffs reallege and incorporate the jurisdictional paragraphs as though fully set forth.

2. Plaintiffs reside or own property within one-half mile of the waste disposal site operated by Defendant Basin Disposal.

3. Chemicals and matter deposited in the disposal site create fumes, gases, and particles which are allowed to escape in to the atmosphere.

4. Seepage from the materials at the disposal site escape

into the surface water through overflows and through seepage.

5. The fumes, gases, particles and seepage invade the property owned by Plaintiffs.

6. The fumes and gases escaping the disposal site, in particular the hydrogen sulfide when present in sufficient quantities, are lethal to humans and animals.

7. Unknown substances, in addition to the hydrogen sulfide gas escaping from the site, are taken into the bodies of the Plaintiffs and members of Plaintiffs' families.

8. Each of the Plaintiffs, as well as members of the public at large, have been rendered physically ill by exposure to the fumes, gases and other materials escaping from Defendant Basin Disposal's facility.

9. Some of the Plaintiffs have been forced to seek emergency medical care because of the effects from their exposure to the toxins and pollutants of Defendants.

10. The Plaintiffs homes were located at the present site prior to the creation of the disposal site.

11. The Plaintiffs have great fear that they and their families will be irreparably harmed by the exposure to the fumes, gases and other contaminants produced by the Defendants.

12. There is no adequate remedy at law for the past, present and continuing destruction of the health of the Plaintiffs and their families. The destruction of the health and of the property of the Plaintiffs constitutes immediate and irreparable

injury.

13. The interests of the public in general would be furthered by the order of the Court that the Defendants cease their operations at the disposal site, accept no more truck or tank loads of chemicals, and proceed forthwith to clean up the disposal location.

14. A Judgment for abatement of a public nuisance entitles counsel for Plaintiffs to a reasonable attorney's fee.

WHEREFORE, Plaintiffs pray that the Defendants, and each of them, be preliminarily enjoined from continuing to operate the waste disposal site; for their costs, attorney fees and that the Defendants be required to clean up the disposal site and such other and further relief as the Court deem just.

#### COUNT II

1. Plaintiffs reallege and reincorporate the proceeding paragraphs as though fully set forth.

2. The operation by the Defendants of the disposal site constitutes both a public and a private nuisance.

3. The public and private nuisance operated by the Defendants has caused immediate and irreparable injury to these Plaintiffs.

4. The actions of these Defendants have caused personal injury to the Plaintiffs, lost wages, medical expenses, have forced Plaintiffs to live virtual prisoners inside their homes.

unable to venture forth onto their properties; has caused great pain and suffering both of the mind and of the bodies of the Plaintiffs and in addition has caused damage to the value of the properties, both personal and real, of the Plaintiffs.

5. These Defendants have operated and continue to operate and deposit materials in the disposal site with knowledge, both actual and implied, that their actions have caused immediate and irreparable harm to the Plaintiffs.

6. The Defendants have acted in a willful, wanton, and grossly reckless manner in conducting their operations at the location of the disposal site.

WHEREFORE, Plaintiffs respectfully pray this Court issue its injunction enjoining these Defendants from operating a waste disposal site at its present location and requiring these Defendants to clean up the existing site, Judgment for damages for the Plaintiffs and against the Defendants, both compensatory and punitive, in an amount to be determined by the Court; their costs, attorneys fees, and such other and further relief as the Court deem just.

### COUNT III - TRESPASS

1. Plaintiffs reallege and reincorporate the provisions of the proceeding paragraphs a though fully set forth.

2. The actions of the Defendants in allowing contaminants and water to escape from the property of Defendant Basin Disposal

onto the lands of the Plaintiffs constitute a trespass.

3. The trespass has occurred in the past and, on information and belief, will continue to occur in the future.

4. The trespass permitted by these Defendants has caused immediate and irreparable to these Plaintiffs.

WHEREFORE, Plaintiffs respectfully pray this Court issue its injunction enjoining these Defendants from operating a waste disposal site at its present location and requiring these Defendants to clean up the existing site, and for damages for the Plaintiffs and against the Defendants, both compensatory and punitive, in an amount to be determined by the Court; their costs, attorneys fees, and such other and further relief as the Court deem just.

#### COUNT IV - STRICT LIABILITY

1. Plaintiffs reallege and reincorporate the proceeding paragraphs as though fully set forth.

2. The action of the Defendants in operating and contributing to a disposal site of ultra hazardous material gives rise to strict liability for all damages proximately caused by the activities aforementioned.

3. These Defendants knew or should have known that their actions in operating and contributing to the disposal site filled with ultra hazardous material would cause damages to the Plaintiffs.

4. The actions of the Defendants have caused damages to Plaintiffs, and will continue to cause damage to them.

WHEREFORE, Plaintiffs pray that the Defendants, and each of them, be preliminarily enjoined from continuing to operate the waste disposal site and that the Defendants be required to clean up the disposal site, for damages for Plaintiffs and against Defendants; for their costs, attorneys fees and such other and further relief as the Court deem just.

#### COUNT V - MISREPRESENTATION

1. Plaintiffs reallege and reincorporate proceeding paragraphs as though fully set forth.

2. Representatives of the Defendant Basin Disposal, prior to the creation of the waste disposal site, represented to Plaintiffs that the creation of the waste disposal site would not create any fumes, odors, gases, or in any way interfere with the Plaintiffs possession and control of Plaintiff's property.

3. Statements of the agents of Defendants that benefits would accrue to the Plaintiffs from the creation and operation of the waste disposal site were not true.

4. Plaintiffs reasonably relied on the representation of the agents of Defendants that no harm would come to the Plaintiffs and in fact that benefits would accrue to the Plaintiffs from the creation and operation of the disposal site.

5. Representations were false.

6. These Plaintiffs have been harmed by their reliance on the representations of the Defendants and their agents.

WHEREFORE, Plaintiffs pray that the Defendants, and each of them, be preliminarily enjoined from continuing to operate the waste disposal site and that the Defendants be required to clean up the disposal site, for damages for Plaintiffs and against Defendants; for their costs, attorneys fees and such other and further relief as the Court deem just.

#### COUNT VI - NEGLIGENCE

1. Plaintiffs reallege and reincorporate the proceeding paragraphs as though fully set forth.

2. Defendant Basin Disposal, its officers, directors, and agents have operated the waste disposal site in negligent manner.

3. Defendants have failed and refused to utilize any standards in the inspection of materials brought into the waste disposal site.

4. Agent of the Defendants trucking companies deposited ultra hazardous materials in the waste disposal site knowing that harm would incur to these Plaintiffs as a result of their actions.

5. Plaintiffs have suffered injuries both physical and to property as a direct approximate result of the actions Defendants.

WHEREFORE, Plaintiffs pray that the Defendants, and each of them, be preliminarily enjoined from continuing to operate the waste disposal site and that the Defendants be required to clean

