

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413
Phone: (505) 632-1199 Fax: (505) 632-3903

Mr. Denny G. Foust -Environmental Geologist
New Mexico Oil Conservation Division - (NMOCD)
1000 Rio Brazos Road
Aztec, New Mexico 87410

**RE: Cross Timbers Oil Co. Federal GC H # 1 Spill Cleanup Report
Unit C, SEC. 31, T30N, R12W, San Juan County, New Mexico**

January 28, 2000



Dear Mr. Foust:

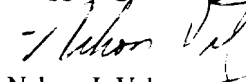
On behalf of Cross Timbers Oil Company, Blagg Engineering, Inc. (BEI) respectfully submits the attached report affiliated with the Federal GC H # 1 spill release (approximately 69 barrels) which occurred on approximately November 25, 1999.

In briefly summarizing the cleanup effort which took place between November 26th and 29th, 1999, approximately 304 cubic yards of impacted soil was removed (refer to Figure 1) and transported to Envirotech, Inc.'s Soil Remediation Facility (NMOCD rule 7/11 permit for commercial facility - Landfarm #2) located in NW/4, Sec. 6, T26N, R10W, NMPM, San Juan County, NM. The excavation perimeter was arbitrarily and judgmentally sampled during and upon completion of the excavation activity (refer to Figure 2 for sample locations and result summary). In reviewing the field and analytical results, it appears that vertical extent has been established utilizing the PB @ 12 ft. and PB5 @ 14 ft. data and that lateral extent of contamination appears to have met state closure standards with the exception of the 2A sample point area (point of release). It was then suggested and agreed upon between BEI and NMOCD to remediate the remaining contamination passively (estimated to be 20-30 cubic yards) utilizing vertical vent piping (refer to Figure 3) and a 50% Nitrogen, 0% Phosphorus, 0% Potassium fertilizer application (installed and introduced on January 25, 2000 by BEI).

Based upon the attached information given, Cross Timbers Oil Company is requesting closure based on risk that the remaining soil contamination does not appear to pose a present or future threat to groundwater (estimated at a depth greater than 30 feet), health, or the environment.

If you have any questions or comments concerning this report, please contact myself or Jeff Blagg at the address or phone number listed above. Thank you for your cooperation.

Respectfully submitted,
Blagg Engineering, Inc.


Nelson J. Velez
Staff Geologist

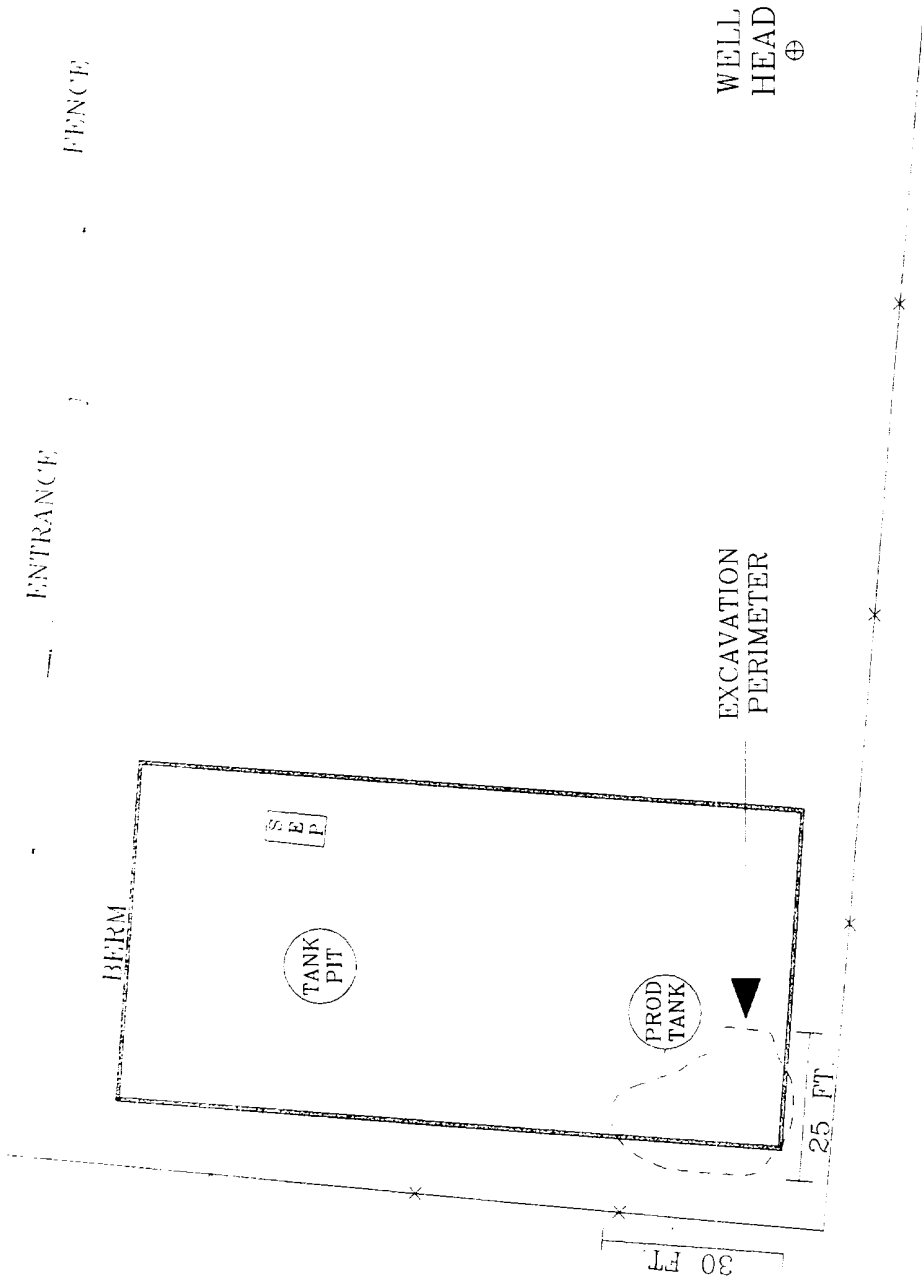
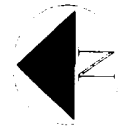
Attachments: Spill Cleanup Report

xc: Bill Olson, Hydrologist, NMOCD, Santa Fe Office, NM
Rueben Sanchez, Environmental Team Lead, BLM, Farmington, NM (2 copies)
Terry Matthews, Regional Supervisor, Cross Timbers Oil Co., Farmington, NM

NJV/njv

FED-HI.CVL

FIGURE 1



PRODUCTION TANK & SEPARATOR LOCATIONS ARE ONLY AS ACCURATE AS THE INSTRUMENTS USED IN OBTAINING THE FOOTAGE AND BEARING FROM THE WELL HEAD (BRUNTON COMPASS AND LASER RANGE FINDER). ALL OTHER STRUCTURES DISPLAYED ON THE SITE MAP ARE SOLELY FOR REFERENCE AND ARE NOT TO SCALE.

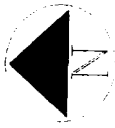
1 INCH = 30 FT.
 0 30 60 FT.

CROSS TIMBERS OIL COMPANY
 FEDERAL, GC H #1
 NE 1 NW 1 SEC 31, T30N, R12W
 SAN JUAN COUNTY, NEW MEXICO

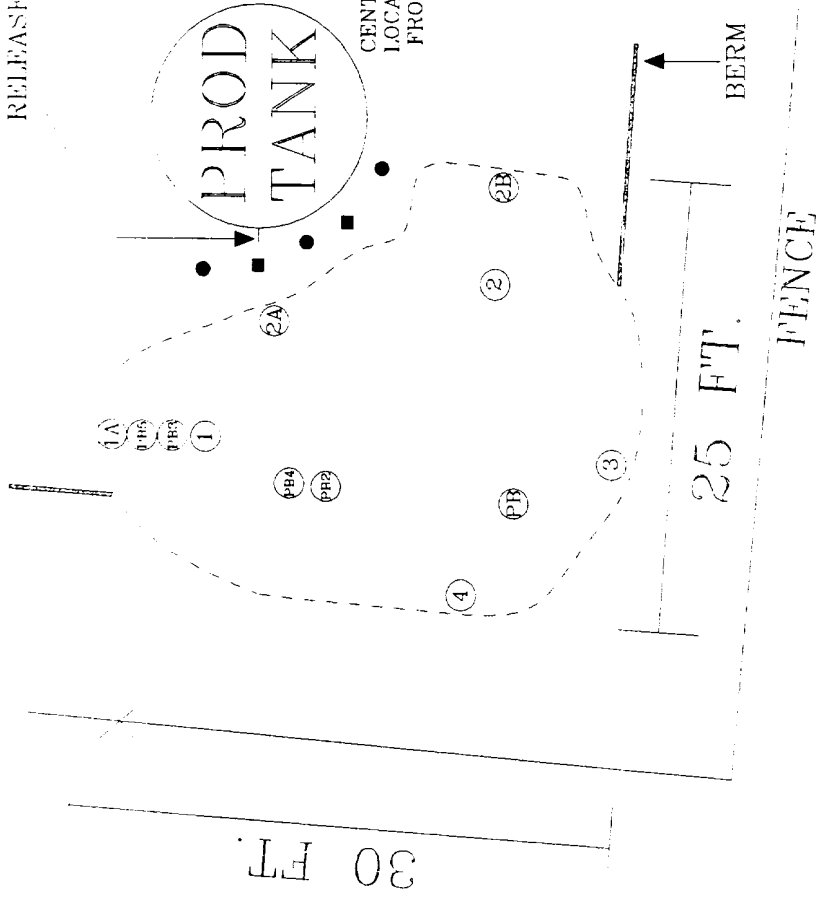
BLAGG ENGINEERING, INC.
 CONSULTING PETROLEUM / RECLAMATION SERVICES
 P.O. BOX 87
 BLOOMFIELD, NEW MEXICO 87413
 PHONE: (505) 632 1199

PROJECT SPILL CLEAN UP
 DRAWN BY: NUJ
 FILENAME: FED MAP.SKD
 SITH
 MAP
 11/99

FIGURE 2



POINT OF RELEASE



CENTER OF PROD. TANK
LOCATED 156 FT., N82W
FROM THE WELL HEAD.

NOV. 29, 1999

SAMP PT ID	DEPTH (FT.)	OVUM READING (ppm)
1 @ 6 FT.	6	219
1A @ 6 FT.	6	131.6
2 @ 5 FT.	5	242
2A @ 5 FT.	5	248
2B @ 5 FT.	5	126.7
3 @ 6 FT.	6	115.2
4 @ 6 FT.	6	97.1
PB @ 12 FT.	12	78.3
PB2 @ 11 FT.	11	275
PB3 @ 11 FT.	11	510
PB4 @ 12 FT.	12	121.9
PB5 @ 14 FT.	14	142.1

NOTE: CLOSURE STANDARD - OVM < 100 ppm.

SAMP PT. ID	DEPTH (FT.)	TPH (ppm)	BENZENE (ppb)	TOTAL BTEX (ppb)
PB @ 12 FT.	12	19.7	-	-
PB5 @ 14 FT.	14	12.0	820	5,240
2A @ 5 FT.	5	3,540	12,130	41,460

NOTE: CLOSURE STANDARDS
TPH < 100 ppm, benzene < 10,000 ppb, &
total BTEX < 50,000 ppb.

LEGEND:

- DENOTES BORING LOCATION OF FERTILIZER APPLICATION.
- DENOTES BORING LOCATION OF VERTICAL PASSIVE VENT PIPING

1 INCH = 10 FT.
0 10 20 FT.

CROSS TIMBERS OIL COMPANY
FEDERAL GC H #1
NE 1/4 NW 4 SEC 31, T30N, R12W
SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.
CONSULTING PETROLEUM / RECLAMATION SERVICES
P.O. BOX 87
BLOOMFIELD, NEW MEXICO 87413
PHONE: (505) 632-1199

PROJECT: SPILL CLEAN UP
DRAWN BY: NJV
FILENAME: FED-MAP2.SKD

SITE
MAP
11/99

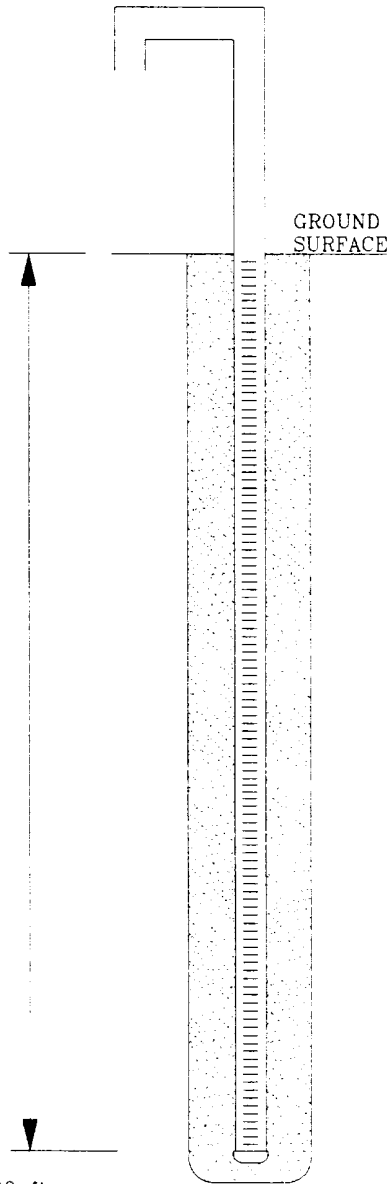
FIGURE 3

CROSS TIMBERS OIL COMPANY
 FEDERAL, GC H # 1
 MONITOR WELL CONSTRUCTION & COMPLETION
 INSTALLED WITH HAND AUGER

BLAGG ENGINEERING, INC.
 CONSULTING PETROLEUM & RECLAMATION SERVICES
 P.O. BOX 87
 BLOOMFIELD, NEW MEXICO 87413
 PHONE (505) 632-1199

VENT PIPING SCHEMATIC
 DRAWN BY: NJV
 DATE: JAN 00
 FILENAME: PWD_PVP.SND

2" DIA. SCH 40
 PVC WELL CASING



ENTIRE LENGTH
 CONSIST OF 0.01
 INCH SLOTTED
 SCREEN SCH 40
 WITH SLIP CAP

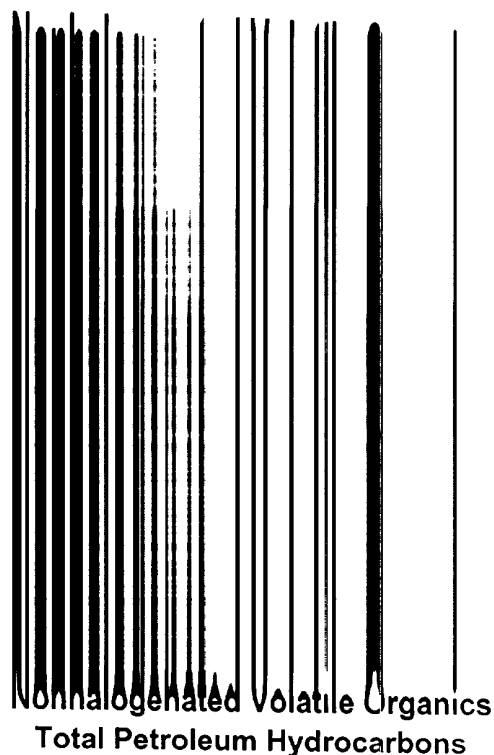
ANNULAR COMPLETED
 WITH SOIL REMOVED
 WITH HAND AUGER

TOTAL DEPTH = 15.00 ft
 FROM GROUND SURFACE

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified



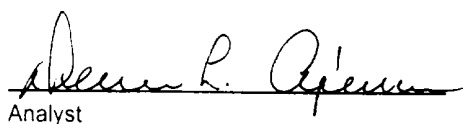
Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	PB @ 12'	Date Reported:	11-30-99
Laboratory Number:	G509	Date Sampled:	11-29-99
Chain of Custody No:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Extracted:	11-30-99
Preservative:	Cool	Date Analyzed:	11-30-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

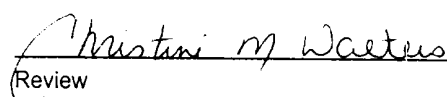
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.6	0.2
Diesel Range (C10 - C28)	19.1	0.1
Total Petroleum Hydrocarbons	19.7	0.2

ND - Parameter not detected at the stated detection limit.

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

Comments: **Federal GC H #1 Tank Spill.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

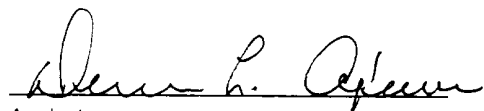
Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	PB5 @ 14'	Date Reported:	11-30-99
Laboratory Number:	G510	Date Sampled:	11-29-99
Chain of Custody No:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Extracted:	11-30-99
Preservative:	Cool	Date Analyzed:	11-30-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

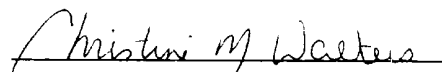
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	8.2	0.2
Diesel Range (C10 - C28)	3.8	0.1
Total Petroleum Hydrocarbons	12.0	0.2

ND - Parameter not detected at the stated detection limit.

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

Comments: **Federal GC H #1 Tank Spill.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

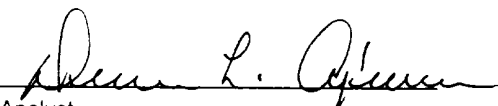
Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	2A @ 5'	Date Reported:	11-30-99
Laboratory Number:	G511	Date Sampled:	11-29-99
Chain of Custody No:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Extracted:	11-30-99
Preservative:	Cool	Date Analyzed:	11-30-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

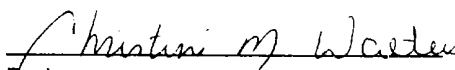
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3,170	0.2
Diesel Range (C10 - C28)	372	0.1
Total Petroleum Hydrocarbons	3,540	0.2

ND - Parameter not detected at the stated detection limit.

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

Comments: **Federal GC H #1 Tank Spill.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	PB5 @ 14'	Date Reported:	11-30-99
Laboratory Number:	G510	Date Sampled:	11-29-99
Chain of Custody:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Analyzed:	11-30-99
Preservative:	Cool	Date Extracted:	11-30-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	820	10.4
Toluene	506	10.4
Ethylbenzene	159	10.4
p,m-Xylene	3,280	10.4
o-Xylene	475	5.2
Total BTEX	5,240	

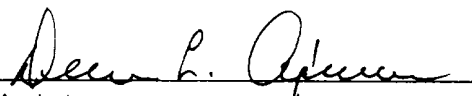
ND - Parameter not detected at the stated detection limit.

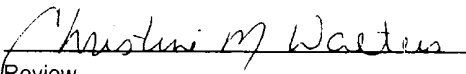
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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

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

Comments: **Federal GC H #1 Tank Spill.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Cross Timbers	Project #:	403410
Sample ID:	2A @ 5'	Date Reported:	11-30-99
Laboratory Number:	G511	Date Sampled:	11-29-99
Chain of Custody:	7443	Date Received:	11-30-99
Sample Matrix:	Soil	Date Analyzed:	11-30-99
Preservative:	Cool	Date Extracted:	11-30-99
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	12,130	10.4
Toluene	4,690	10.4
Ethylbenzene	15,590	10.4
p,m-Xylene	5,860	10.4
o-Xylene	3,190	5.2
Total BTEX	41,460	

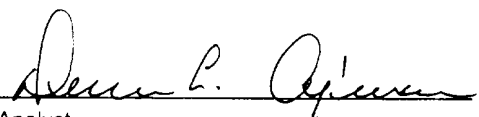
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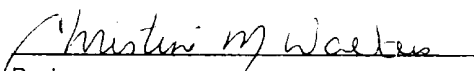
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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

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

Comments: **Federal GC H #1 Tank Spill.**


Analyst


Review

CHAIN OF CUSTODY RECORD

7443

Client / Project Name		Project Location		ANALYSIS / PARAMETERS			
BLADES / CROSS TIMBERS		FEDERAL TRUCK SPILL		Client No. 403410			
Sampler: NTU		GC H #1		No. of Containers		Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	TPH (g/l)	BTX (g/l)	Remarks
P8 @ 12'	11/29/99	1205	6509	SOIL	✓	✓	PRESERV. - COOL
P85 @ 14'	11/29/99	1540	6510	SOIL	✓	✓	PRESERV. - COOL
2A @ 5'	11/29/99	1520	6511	SOIL	✓	✓	PRESERV. - COOL
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time
<i>[Signature]</i>		11/30/99	0722	<i>[Signature]</i>		11.30.99	0722
Relinquished by: (Signature)		Received by: (Signature)					
<i>[Signature]</i>		<i>[Signature]</i>					
Relinquished by: (Signature)		Received by: (Signature)					
<i>[Signature]</i>		<i>[Signature]</i>					

ENVIROTECH INC.

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

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