NM1-011

CONTINUED

C-138

YEAR(S):

2006-1997

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
...c, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-13
Originated 8/8/9

Submit Origina
Plus 1 Cop
to appropriat
District Offic

Env. JN: 95026-

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Donna Faust 12.7.00 8:45 AM Verbal Approval Received: Yes ☒ No ☐	4. Generator BJ Services
	5. Originating Site Wash Out Rack
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	3250 Southside River Rd Farmington, NM.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

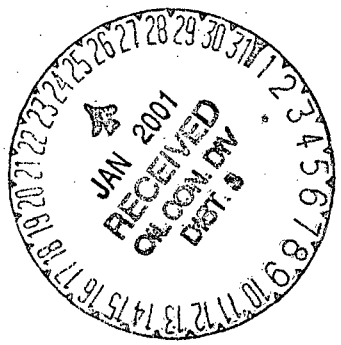
All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Continuation of wash bay solids disposal & remediation

TCLP Attached.

BOL # 12499
40 cy LF#2 cell BB-19



Estimated Volume 40 cy Known Volume (to be entered by the operator at the end of the haul) 40 cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 12.15.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 01/25/01

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 02/9/01

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
BJ Services 3250 Southside River Road Farmington, New Mexico 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): BJ Services (Main Yard) 3250 Southside River Road Farmington, New Mexico 87401 Attech list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Same - Wash Bay Solids Facility
4. Source and Description of Waste Continuation of Wash Bay Solids.	

I, Les Baugh (Print Name) representative for:

BJ Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

__ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

__ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
X Other (description): Reaffirmation Statement

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Les Baugh

Title: Facilities Supervisor

Date: 12/7/00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

RECEIVED DEC 12 2000

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2/17/00

Printed Name Les Baugh

Title / Agency Facilities Supervisor

Address 3250 Southside River Road

Farmington New Mexico 87401

Signature Les Baugh

Date 12/7/00

5796 U.S. Highway 64-3014 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
BJ Services 3250 Southside River Road Farmington, New Mexico 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): BJ Services (Main Yard) 3250 Southside River Road Farmington, New Mexico 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Same - Wash Bay Solids Facility
4. Source and Description of Waste Continuation of Wash Bay Solids.	

I, Les Baugh (Print Name) representative for:

BJ Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

X NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
X Other (description): Reaffirmation Statement

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Les Baugh

Title: Facilities Supervisor

Date: 12/7/00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2/17/00

Printed Name Les Baugh

Title / Agency Facilities Supervisor

Address 3250 Southside River Road

Farmington, New Mexico 87401

Signature Les Baugh

Date 12/7/00

Reply:BJ Services Company, USA
3250 Southside River Road
Farmington, NM 87401
Phone: (505) 327-6222
Fax: (505) 326-3755

FARMINGTON DISTRICT

Date: 12/7/00 Time: 10:40 A.M.

To: Envirotech, Inc Fax Number: 632-1865

Attn: Harlon Brown Number of Pages:

From: Lee Bough - Farmington Including Cover: 3

Comment: _____

_____

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 17, 2000

Mr. Les Baugh
BJ Services
3250 E. Southside River Rd.
Farmington, NM 87401

Phone: (505) 327-6222

Client No.: 95026-01
Job No.: 502601

Dear Mr. Baugh,

Enclosed are the analytical results for the sample collected from the location designated as "3250 Southside River Rd., Farmington, NM". One sludge sample was collected by Envirotech personnel on 2/10/00, and received by the Envirotech laboratory on 2/10/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7672 and assigned Laboratory No. G810 (Wash Bay Sludge) for tracking purposes.

The sample was analyzed 2/10/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/BJ.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	B J Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-10-00
Lab ID#:	G810	Date Sampled:	02-10-00
Sample Matrix:	Sludge	Date Received:	02-10-00
Preservative:	Cool	Date Analyzed:	02-10-00
Condition:	Cool and Intact	Chain of Custody:	7672

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.80**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0129**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0038**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Analyzed:	02-16-00
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.067**	**0.001**	**5.0**
Barium	**0.585**	**0.001**	**21**
Cadmium	**0.035**	**0.001**	**0.11**
Chromium	**0.022**	**0.001**	**0.60**
Lead	**0.031**	**0.001**	**0.75**
Mercury	**ND**	**0.001**	**0.025**
Selenium	**0.037**	**0.001**	**5.7**
Silver	**0.016**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**100%**
	Bromofluorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0129	0.0129	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0038	0.0038	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0129	0.050	0.0624	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0038	0.050	0.0536	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool and Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-11-00
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-16-TCM QA/QC	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	02-16-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.067	0.066	1.5%	0% - 30%
Barium	ND	ND	0.001	0.585	0.582	0.5%	0% - 30%
Cadmium	ND	ND	0.001	0.035	0.035	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.022	0.022	0.0%	0% - 30%
Lead	ND	ND	0.001	0.031	0.031	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.037	0.036	2.7%	0% - 30%
Silver	ND	ND	0.001	0.016	0.016	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.067	0.566	99.8%	80% - 120%
Barium	0.500	0.585	1.08	99.8%	80% - 120%
Cadmium	0.500	0.035	0.534	99.8%	80% - 120%
Chromium	0.500	0.022	0.521	99.8%	80% - 120%
Lead	0.500	0.031	0.530	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.037	0.535	99.6%	80% - 120%
Silver	0.500	0.016	0.515	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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

CHAIN OF CUSTODY RECORD

7672

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BJ Services	3250 Southside River Rd Farmington NM.	

Sampler:	Client No.
Harlan M. Brown	95026 -01

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Hg						Remarks
Wash Bay Sludge	2-10-00	8:55	G810	Sludge	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	2-10-00	10:03	Glenn P. Spencer	2.10.00	10:03
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

Martyne Kieling

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: _____

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Donna Faust 12.7.00 8:45 AM Verbal Approval Received: Yes ☒ No ☐	4. Generator BJ Services
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	5. Originating Site Wash Bay Rack
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	6. Transporter Envirotech
7. Location of Material (Street Address or ULSTR)	8. State New Mexico
	3250 Southside River Rd Farmington, NM.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Continuation of wash bay solids disposal & remediation

TCLP Attached.

DEC 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 40 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 12.15.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 12/21/00

APPROVED BY: Martyne Kieling TITLE: Environmental Geologist DATE: 1/11/01

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: BJ Services 3250 Southside River Road Farmington, New Mexico 87401	2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): BJ Services (Main Yard) 3250 Southside River Road Farmington, New Mexico 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Same - Wash Bay Solids Facility
4. Source and Description of Waste Continuation of Wash Bay Solids.	

I, Les Baugh (Print Name) representative for:

BJ Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

___ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
X Other (description): Reaffirmation Statement

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Les Baugh

Title: Facilities Supervisor

Date: 12/7/00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

RECEIVED DEC 1 2 2000

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2/17/00

Printed Name Les Baugh

Title / Agency Facilities Supervisor

Address 3250 Southside River Road

Farmington New Mexico 87401

Signature Les Baugh

Date 12/7/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
BJ Services 3250 Southside River Road Farmington, New Mexico 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): BJ Services (Main Yard) 3250 Southside River Road Farmington, New Mexico 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Same - Wash Bay Solids Facility
4. Source and Description of Waste Continuation of Wash Bay Solids.	

I, Les Baugh (Print Name) representative for:

BJ Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

__ EXEMPT oilfield waste

X NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

__ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
X Other (description): Reaffirmation Statement

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Les Baugh

Title: Facilities Supervisor

Date: 12/7/00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2/17/00

Printed Name Les Baugh

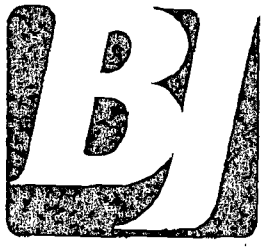
Title / Agency Facilities Supervisor

Address 3350 Southside River Road

Farmington New Mexico 87401

Signature Les Baugh

Date 12/7/00



Reply:BJ Services Company, USA
3250 Southside River Road
Farmington, NM 87401
Phone: (505) 327-6222
Fax: (505) 326-3755

FARMINGTON DISTRICT

Date: 12/7/00 Time: 10:40 A.M.

To: Envirotech, Inc Fax Number: 632-1865

Attn: Harlon Brown Number of Pages:

From: Lee Bough - Farmington Including Cover: 3

Comment:

ENVIROTECH LABS
PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 17, 2000

Mr. Les Baugh
BJ Services
3250 E. Southside River Rd.
Farmington, NM 87401

Phone: (505) 327-6222

Client No.: 95026-01
Job No.: 502601

Dear Mr. Baugh,

Enclosed are the analytical results for the sample collected from the location designated as "3250 Southside River Rd., Farmington, NM". One sludge sample was collected by Envirotech personnel on 2/10/00, and received by the Envirotech laboratory on 2/10/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7672 and assigned Laboratory No. G810 (Wash Bay Sludge) for tracking purposes.

The sample was analyzed 2/10/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/BJ.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	B J Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-10-00
Lab ID#:	G810	Date Sampled:	02-10-00
Sample Matrix:	Sludge	Date Received:	02-10-00
Preservative:	Cool	Date Analyzed:	02-10-00
Condition:	Cool and Intact	Chain of Custody:	7672

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.80**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**3250 Southside River Rd., Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0129**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0038**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **3250 Southside River Rd., Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **3250 Southside River Rd., Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **3250 Southside River Rd., Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Analyzed:	02-16-00
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.067**	**0.001**	**5.0**
Barium	**0.585**	**0.001**	**21**
Cadmium	**0.035**	**0.001**	**0.11**
Chromium	**0.022**	**0.001**	**0.60**
Lead	**0.031**	**0.001**	**0.75**
Mercury	**ND**	**0.001**	**0.025**
Selenium	**0.037**	**0.001**	**5.7**
Silver	**0.016**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **3250 Southside River Rd., Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	**ND**	**ND**	**0.0001**	**0.0%**
1,1-Dichloroethene	**ND**	**ND**	**0.0001**	**0.0%**
2-Butanone (MEK)	**0.0129**	**0.0129**	**0.0001**	**0.0%**
Chloroform	**ND**	**ND**	**0.0001**	**0.0%**
Carbon Tetrachloride	**ND**	**ND**	**0.0001**	**0.0%**
Benzene	**0.0038**	**0.0038**	**0.0001**	**0.0%**
1,2-Dichloroethane	**ND**	**ND**	**0.0001**	**0.0%**
Trichloroethene	**ND**	**ND**	**0.0003**	**0.0%**
Tetrachloroethene	**ND**	**ND**	**0.0005**	**0.0%**
Chlorobenzene	**ND**	**ND**	**0.0003**	**0.0%**
1,4-Dichlorobenzene	**ND**	**ND**	**0.0002**	**0.0%**

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0129	0.050	0.0624	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0038	0.050	0.0536	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool and Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-11-00
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-16-TCM QA/QC	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	02-16-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.067**	**0.066**	**1.5%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.585**	**0.582**	**0.5%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.035**	**0.035**	**0.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.022**	**0.022**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.031**	**0.031**	**0.0%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.037**	**0.036**	**2.7%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.016**	**0.016**	**0.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.067**	**0.566**	**99.8%**	**80% - 120%**
Barium	**0.500**	**0.585**	**1.08**	**99.8%**	**80% - 120%**
Cadmium	**0.500**	**0.035**	**0.534**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.022**	**0.521**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.031**	**0.530**	**99.8%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.037**	**0.535**	**99.6%**	**80% - 120%**
Silver	**0.500**	**0.016**	**0.515**	**99.8%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

7672

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BJ Services	3250 Southside River Rd Farmington, NM.	
Sampler: Harlan M. Brown	Client No. 95026 -01	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Hg						Remarks
Wash Bay Sludge	2.10.00	8:55	G810	Sludge	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M. Brown	2.10.00	10:03	Glenn L. Spencer	2.10.00	10:03
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
[illegible], NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
DEC 0 6 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 95007-06

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ — Dunn Faust 12.1.00 14:30	4. Generator Coastal Chemical
	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	1130 Madison Lane Farmington NM 87401

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Cleanup Amine contaminated soil. Transfer line ruptured between tank and Transport on loading dock.

pH Analysis
MSDS Attached.

Hauled 12/2/00, verbal approval from Roger Anderson

Estimated Volume 168 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown (Waste Management Facility Authorized Agent) TITLE: Landfarm Manager DATE: 12.4.00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 12/4/00

APPROVED BY: Marilyn J. Kitz TITLE: Environmental Geologist DATE: 12/6/00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Coastal Chemical, LLP 1130 Madison Lane Farmington, NM 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Coastal Chemical, LLP 1130 Madison Lane Farmington, NM 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Amine based gas treating additive from on-site tank.	

I, Michael Meredith (Print Name) representative for:

Coastal Chemical do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

✓ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

✓ MSDS Information
___ RCRA Hazardous Waste Analysis
✓ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Michael Meredith

Title: Facility Manager

Date: 12/2/00

Material Safety Data Sheet

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

24-HOUR EMERGENCY PHONE NUMBER: 517-636-4400

PRODUCT: GAS/SPEC (R) CS-2000 GAS TREATING SOLVENT ADDITIVE

PRODUCT CODE: 60643

EFFECTIVE DATE: 10/27/99 DATE PRINTED: 12/22/99 MSD: 006132

THE DOW CHEMICAL COMPANY, MIDLAND, MI 48674

CUSTOMER INFORMATION CENTER: 800-258-2436

2. COMPOSITION/INFORMATION ON INGREDIENTS

PROPRIETARY INGREDIENT		
WATER	CAS# 007732-18-5	<14%

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

****
* COLORLESS TO LIGHT YELLOW LIQUID. SLIGHT AMINE ODOR. CAUSES EYE *
* BURNS. CAUSES SKIN IRRITATION. TOXIC FUMES ARE RELEASED IN FIRE *
* SITUATIONS. *
****

POTENTIAL HEALTH EFFECTS (SEE SECTION 11 FOR TOXICOLOGICAL DATA.)

EYE: MAY CAUSE SEVERE EYE IRRITATION WITH CORNEAL INJURY WHICH MAY RESULT IN PERMANENT IMPAIRMENT OF VISION, EVEN BLINDNESS. VAPORS OR MISTS MAY CAUSE EYE IRRITATION.

SKIN: SHORT SINGLE EXPOSURE MAY CAUSE MODERATE SKIN IRRITATION. PROLONGED OR REPEATED EXPOSURE MAY CAUSE SEVERE SKIN IRRITATION. A SINGLE PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN THE MATERIAL BEING ABSORBED IN HARMFUL AMOUNTS.

INGESTION: SINGLE DOSE ORAL TOXICITY IS CONSIDERED TO BE LOW. SMALL AMOUNTS SWALLOWED INCIDENTAL TO NORMAL HANDLING OPERATIONS ARE NOT LIKELY TO CAUSE INJURY; SWALLOWING AMOUNTS LARGER THAN THAT MAY CAUSE INJURY. INGESTION MAY CAUSE IRRITATION OF THE MOUTH, THROAT, AND GASTROINTESTINAL TRACT.

INHALATION: IF MATERIAL IS HEATED OR AEROSOL/MIST IS PRODUCED, CONCENTRATIONS MAY BE ATTAINED THAT ARE SUFFICIENT TO CAUSE

(CONTINUED ON PAGE 2 , OVER)

RESPIRATORY IRRITATION.

4. FIRST AID

EYE: IMMEDIATE AND CONTINUOUS IRRIGATION WITH FLOWING WATER FOR AT LEAST 30 MINUTES IS IMPERATIVE. PROMPT MEDICAL CONSULTATION IS ESSENTIAL.

SKIN: WASH OFF IN FLOWING WATER OR SHOWER.

INGESTION: IF SWALLOWED, SEEK MEDICAL ATTENTION. DO NOT INDUCE VOMITING UNLESS DIRECTED TO DO SO BY MEDICAL PERSONNEL.

INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR. CONSULT A PHYSICIAN.

NOTE TO PHYSICIAN: NO SPECIFIC ANTIDOTE. SUPPORTIVE CARE. TREATMENT BASED ON JUDGMENT OF THE PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
FLASH POINT: >300F
METHOD USED: SETAFLASH CC

FLAMMABILITY LIMITS
LFL: NOT DETERMINED.
UFL: NOT DETERMINED.
AUTOIGNITION TEMPERATURE: NOT DETERMINED.

HAZARDOUS COMBUSTION PRODUCTS: UNDER FIRE CONDITIONS SOME COMPONENTS OF THIS PRODUCT MAY DECOMPOSE. THE SMOKE MAY CONTAIN UNIDENTIFIED TOXIC AND/OR IRRITATING COMPOUNDS. HAZARDOUS COMBUSTION PRODUCTS MAY INCLUDE AND ARE NOT LIMITED TO NITROGEN OXIDES, CARBON MONOXIDE, CARBON DIOXIDE.

OTHER FLAMMABILITY INFORMATION: THIS MATERIAL WILL NOT BURN UNTIL THE WATER HAS EVAPORATED. RESIDUE CAN BURN. SPILLS OF THESE ORGANIC LIQUIDS ON HOT FIBROUS INSULATIONS MAY LEAD TO LOWERING OF THE AUTOIGNITION TEMPERATURES POSSIBLY RESULTING IN SPONTANEOUS COMBUSTION.

EXTINGUISHING MEDIA: TO EXTINGUISH COMBUSTIBLE RESIDUES OF THIS PRODUCT USE WATER FOG, CARBON DIOXIDE, DRY CHEMICAL OR FOAM. ALCOHOL RESISTANT FOAMS (ATC TYPE) ARE PREFERRED

(CONTINUED ON PAGE 3)

IF AVAILABLE. GENERAL PURPOSE SYNTHETIC FOAMS (INCLUDING AFFF) OR PROTEIN FOAMS MAY FUNCTION, BUT MUCH LESS EFFECTIVELY.

FIRE FIGHTING INSTRUCTIONS: KEEP PEOPLE AWAY. ISOLATE FIRE AREA AND DENY UNNECESSARY ENTRY. TO EXTINGUISH COMBUSTIBLE RESIDUES OF THIS PRODUCT USE WATER FOG, CARBON DIOXIDE, DRY CHEMICAL, OR FOAM.

PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND PROTECTIVE FIRE FIGHTING CLOTHING (INCLUDES FIRE FIGHTING HELMET, COAT, PANTS, BOOTS, AND GLOVES). AVOID CONTACT WITH THIS MATERIAL DURING FIRE FIGHTING OPERATIONS. IF CONTACT IS LIKELY, CHANGE TO FULL CHEMICAL RESISTANT CLOTHING WITH SCBA. THIS WILL NOT PROVIDE SUFFICIENT FIRE PROTECTION. CONSIDER FIGHTING FIRE FROM A REMOTE LOCATION. FOR PROTECTIVE EQUIPMENT IN POST-FIRE OR NON-FIRE CLEAN UP SITUATIONS, REFER TO THE RELEVANT SECTIONS.

6. ACCIDENTAL RELEASE MEASURES (SEE SECTION 15 FOR REGULATORY INFORMATION)

PROTECT PEOPLE: ISOLATE AREA. MAY BE A SLIPPING HAZARD. SEE MSDS, SECTION 10, FOR INFORMATION ON STABILITY AND REACTIVITY.

PROTECT THE ENVIRONMENT: CONTAIN LIQUID TO PREVENT CONTAMINATION OF SOIL, SURFACE WATER OR GROUND WATER.

CLEANUP: CLEAN UP WITH ABSORBENT MATERIAL. AVOID MATERIALS SUCH AS SAWDUST. COLLECT MATERIAL IN SUITABLE AND PROPERLY LABELED CONTAINERS.

7. HANDLING AND STORAGE

HANDLING: CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN VAPORS. DO NOT CUT, DRILL, GRIND, WELD, OR PERFORM SIMILAR OPERATIONS ON OR NEAR EMPTY CONTAINERS.

STORAGE: KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. RECOMMENDED STORAGE IN A COOL, DRY PLACE AWAY FROM HIGH TEMPERATURES, HOT PIPES, AND DIRECT SUNLIGHT. DO NOT STORE IN ALUMINUM, BRASS, COPPER, COPPER ALLOYS.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT

(CONTINUED ON PAGE 4 , OVER)

FOR MOST CONDITIONS. LOCAL EXHAUST VENTILATION MAY BE NECESSARY FOR SOME OPERATIONS.

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: USE CHEMICAL GOGGLES. EYE WASH FOUNTAIN SHOULD BE LOCATED IN IMMEDIATE WORK AREA. IF VAPOR EXPOSURE CAUSES EYE DISCOMFORT, USE A FULL-FACE RESPIRATOR.

SKIN PROTECTION: USE GLOVES IMPERVIOUS TO THIS MATERIAL. WHEN PROLONGED OR FREQUENTLY REPEATED CONTACT COULD OCCUR, USE PROTECTIVE CLOTHING IMPERVIOUS TO THIS MATERIAL. SELECTION OF SPECIFIC ITEMS SUCH AS FACESHIELD, GLOVES, BOOTS, APRON, OR FULL-BODY SUIT WILL DEPEND ON OPERATION.

RESPIRATORY PROTECTION: FOR MOST CONDITIONS, NO RESPIRATORY PROTECTION SHOULD BE NEEDED; HOWEVER, IF MATERIAL IS HEATED OR SPRAYED, USE AN APPROVED AIR-PURIFYING RESPIRATOR.

EXPOSURE GUIDELINES: NONE ESTABLISHED.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: COLORLESS TO LIGHT YELLOW LIQUID.
ODOR: SLIGHT AMINE.
BOILING POINT: 233.8F, 112.1C
VAPOR PRESSURE: 0.2 MMHG @ 20 C
VAPOR DENSITY: >1.0
SOLUBILITY IN WATER: COMPLETE
SPECIFIC GRAVITY: 0.94 @ 20/20C
FREEZING POINT: -28F (-33C)

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: STABLE UNDER RECOMMENDED STORAGE CONDITIONS. SEE STORAGE, SECTION 7.

CONDITIONS TO AVOID: PRODUCT CAN DECOMPOSE AT ELEVATED TEMPERATURES.

INCOMPATIBILITY WITH OTHER MATERIALS: AVOID CONTACT WITH HALOGENATED HYDROCARBONS, NITRITES, STRONG ACID. AVOID CONTACT WITH OXIDIZING MATERIALS. HEATING ABOVE 60C IN THE PRESENCE OF ALUMINUM CAN RESULT IN CORROSION AND GENERATION OF FLAMMABLE HYDROGEN GAS. PRODUCT MAY POTENTIALLY REACT WITH VARIOUS HALOGENATED ORGANIC SOLVENTS, RESULTING IN TEMPERATURE AND/OR PRESSURE INCREASES.

(CONTINUED ON PAGE 5)

HAZARDOUS DECOMPOSITION: HAZARDOUS DECOMPOSITION PRODUCTS DEPEND UPON TEMPERATURE, AIR SUPPLY AND THE PRESENCE OF OTHER MATERIALS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

11. TOXICOLOGICAL INFORMATION (SEE SECTION 3 FOR POTENTIAL HEALTH EFFECTS. FOR DETAILED TOXICOLOGICAL DATA, WRITE OR CALL THE ADDRESS OR NON-EMERGENCY NUMBER SHOWN IN SECTION 1)

SKIN: THE DERMAL LD50 HAS NOT BEEN DETERMINED.

INGESTION: THE ORAL LD50 FOR RATS IS 1360 MG/KG.

MUTAGENICITY: NO RELEVANT INFORMATION FOUND.

12. ECOLOGICAL INFORMATION (FOR DETAILED ECOLOGICAL DATA, WRITE OR CALL THE ADDRESS OR NON-EMERGENCY NUMBER SHOWN IN SECTION 1)

ENVIRONMENTAL FATE

MOVEMENT & PARTITIONING: BASED LARGELY OR COMPLETELY ON DATA FOR MAJOR COMPONENT(S). BIOCONCENTRATION POTENTIAL IS LOW (BCF LESS THAN 100 OR LOG POW LESS THAN 3). POTENTIAL FOR MOBILITY IN SOIL IS VERY HIGH (KOC BETWEEN 0 AND 50).

DEGRADATION & PERSISTENCE: BASED LARGELY OR COMPLETELY ON DATA FOR MAJOR COMPONENT(S). BIODEGRADATION MAY OCCUR UNDER AEROBIC CONDITIONS (IN THE PRESENCE OF OXYGEN).

ECOTOXICITY: BASED LARGELY OR COMPLETELY ON DATA FOR MAJOR COMPONENT(S). MATERIAL IS PRACTICALLY NON-TOXIC TO FISH ON AN ACUTE BASIS (LC50 > 100 MG/L). ACUTE LC50 IN GOLDEN ORFE (LEUCISCUS IDUS) IS 270 MG/L. TOXICITY EC50 IN MICROORGANISMS IS 270 MG/L.

13. DISPOSAL CONSIDERATIONS (SEE SECTION 15 FOR REGULATORY INFORMATION)

DISPOSAL: DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER. ALL DISPOSAL METHODS MUST BE IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL LAWS AND REGULATIONS. REGULATIONS MAY VARY IN DIFFERENT LOCATIONS. WASTE CHARACTERIZATIONS AND COMPLIANCE WITH APPLICABLE LAWS ARE THE RESPONSIBILITY SOLELY OF THE WASTE GENERATOR. THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS

(CONTINUED ON PAGE 6 , OVER)

SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (COMPOSITION/INFORMATION ON INGREDIENTS).

FOR UNUSED & UNCONTAMINATED PRODUCT, THE PREFERRED OPTIONS INCLUDE SENDING TO A LICENSED, PERMITTED: INCINERATOR OR OTHER THERMAL DESTRUCTION DEVICE.

AS A SERVICE TO ITS CUSTOMERS, DOW CAN PROVIDE NAMES OF INFORMATION RESOURCES TO HELP IDENTIFY WASTE MANAGEMENT COMPANIES AND OTHER FACILITIES WHICH RECYCLE, REPROCESS OR MANAGE CHEMICALS OR PLASTICS, AND THAT MANAGE USED DRUMS. TELEPHONE DOW'S CUSTOMER INFORMATION CENTER AT 800-258-2436 OR 517-832-1556 FOR FURTHER DETAILS.

14. TRANSPORT INFORMATION

DEPARTMENT OF TRANSPORTATION (D.O.T.):
FOR D.O.T. REGULATORY INFORMATION, IF REQUIRED, CONSULT TRANSPORTATION REGULATIONS, PRODUCT SHIPPING PAPERS, OR YOUR DOW REPRESENTATIVE.

CANADIAN TDG INFORMATION
FOR TDG REGULATORY INFORMATION, IF REQUIRED, CONSULT TRANSPORTATION REGULATIONS, PRODUCT SHIPPING PAPERS, OR YOUR DOW REPRESENTATIVE.

15. REGULATORY INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE--SELECTED REGULATIONS REPRESENTED)

NOTICE: THE INFORMATION HEREIN IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE AS OF THE EFFECTIVE DATE SHOWN ABOVE. HOWEVER, NO WARRANTY, EXPRESS OR IMPLIED IS GIVEN. REGULATORY REQUIREMENTS ARE SUBJECT TO CHANGE AND MAY DIFFER FROM ONE LOCATION TO ANOTHER; IT IS THE BUYER'S RESPONSIBILITY TO ENSURE THAT ITS ACTIVITIES COMPLY WITH FEDERAL, STATE OR PROVINCIAL, AND LOCAL LAWS. THE FOLLOWING SPECIFIC INFORMATION IS MADE FOR THE PURPOSE OF COMPLYING WITH NUMEROUS FEDERAL, STATE OR PROVINCIAL, AND LOCAL LAWS AND REGULATIONS. SEE OTHER SECTIONS FOR HEALTH AND SAFETY INFORMATION.

U.S. REGULATIONS

SARA 313 INFORMATION: TO THE BEST OF OUR KNOWLEDGE, THIS PRODUCT CONTAINS NO CHEMICAL SUBJECT TO SARA TITLE III SECTION 313 SUPPLIER NOTIFICATION REQUIREMENTS.

(CONTINUED ON PAGE 7)

REGULATORY INFORMATION (CONTINUED)

SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED ACCORDING TO THE EPA "HAZARD CATEGORIES" PROMULGATED UNDER SECTIONS 311 AND 312 OF THE SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986 (SARA TITLE III) AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES:

AN IMMEDIATE HEALTH HAZARD

TOXIC SUBSTANCES CONTROL ACT (TSCA):

ALL INGREDIENTS ARE ON THE TSCA INVENTORY OR ARE NOT REQUIRED TO BE LISTED ON THE TSCA INVENTORY.

STATE RIGHT-TO-KNOW: THE FOLLOWING PRODUCT COMPONENTS ARE CITED ON CERTAIN STATE LISTS AS MENTIONED. NON-LISTED COMPONENTS MAY BE SHOWN IN THE COMPOSITION SECTION OF THE MSDS.

CHEMICAL NAME	CAS NUMBER	LIST
PROPRIETARY INGREDIENT	PROPRIETARY	PA1

PA1=PENNSYLVANIA HAZARDOUS SUBSTANCE (PRESENT AT GREATER THAN OR EQUAL TO 1.0%).

OSHA HAZARD COMMUNICATION STANDARD:

THIS PRODUCT IS A "HAZARDOUS CHEMICAL" AS DEFINED BY THE OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200.

COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA, OR SUPERFUND):

(CONTINUED ON PAGE 8 , OVER)

REGULATORY INFORMATION (CONTINUED)

TO THE BEST OF OUR KNOWLEDGE, THIS PRODUCT CONTAINS NO CHEMICAL SUBJECT TO REPORTING UNDER CERCLA.

16. OTHER INFORMATION

PRODUCT USE: SOLVENT FOR SELECTIVE EXTRACTION AND DISSOLUTION.

REVISION INDICATOR: REVISED SECTIONS 2, 3, 5, 9, 10 AND 15.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Coastal Chemical	Project #:	500706
Sample ID:	Amine Upset	Date Reported:	12-04-00
Lab ID#:	18926	Date Sampled:	12-01-00
Sample Matrix:	Soil	Date Received:	12-01-00
Preservative:	Cool	Date Analyzed:	12-04-00
Condition:	Cool and Intact	Chain of Custody:	9165

Parameter	Result	
CORROSIVITY:	**Positive**	**pH = 10.8**

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **1130 Madison Lane, Farmington, N.M.**

Christine M Walters
Analyst

Review

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

CHAIN OF CUSTODY RECORD

09165

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Coastal Chemical	1130 Madison Lane Farmington N.M.	

Sampler:	Client No.
Harlan M Brown	500706

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BTEX						Remarks
Amine Upset	12.1.00	16:30	18926	Soil	1							

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	12.1.00	17:45	Christa Walker	12.1.00	17:45
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

Roger Anderson

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
NOV 28 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 92132

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton Energy Services
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Wash Bay
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4109 E. Main St. Farmington, NM 87402

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Continuation of wash bay solids disposal

NOV 2000
RECEIVED
OIL CON. DIV.
DIST. 3

I gave verbal approval for continuing operations in these weather conditions. (AG)

Estimated Volume 40 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown (Waste Management Facility Authorized Agent) TITLE: Landfarm Manager DATE: 11-21-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 11/22/00

APPROVED BY: Martyne J Kieling TITLE: Environmental Geologist DATE: 11/28/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Halliburton Energy Services 4109 E Main Farmington NMex 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Wash Bay Same as above Holding Area Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): 4109 E Main Farmington NMex
4. Source and Description of Waste: Wash Bay Solids (Contamination)	

I, Dave Hodges (Print Name) representative for: Halliburton Energy Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

✓ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
✓ RCRA Hazardous Waste Analysis
✓ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Dave Hodges

Title: Maintenance Supervisor

Date: 11-21-00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2-11-00

Printed Name Doug Hodges

Title / Agency Maintenance Supervisor

Address 4109 E. Main

Farmington NM

Signature Doug Hodges

Date 11-21-00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 17, 2000

Mr. Doug Hodges
Halliburton Energy Services
4109 E. Main
Farmington, NM 87402

Phone: (505) 325-3575

Client No.: 92132-01
Job No.: 213201

Dear Mr. Hodges,

Enclosed are the analytical results for the sample collected from the location designated as "4109 E. Main, Farmington, NM". One sludge sample was collected by Envirotech personnel on 2/10/00, and received by the Envirotech laboratory on 2/10/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7673 and assigned Laboratory No. G811 (Wash Bay Sludge) for tracking purposes.

The sample was analyzed 2/10/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/Hall.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-10-00
Lab ID#:	G811	Date Sampled:	02-10-00
Sample Matrix:	Sludge	Date Received:	02-10-00
Preservative:	Cool	Date Analyzed:	02-10-00
Condition:	Cool and Intact	Chain of Custody:	7673

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.60**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **4109 E. Main, Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0429	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0066	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **4109 E. Main, Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **4109 E. Main, Farmington, NM.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **4109 E. Main, Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Analyzed:	02-16-00
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.064**	**0.001**	**5.0**
Barium	**0.640**	**0.001**	**21**
Cadmium	**0.035**	**0.001**	**0.11**
Chromium	**0.024**	**0.001**	**0.60**
Lead	**0.034**	**0.001**	**0.75**
Mercury	**0.002**	**0.001**	**0.025**
Selenium	**0.021**	**0.001**	**5.7**
Silver	**0.019**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **4109 E. Main, Farmington, NM.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0129	0.0129	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0038	0.0038	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0129	0.050	0.0624	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0038	0.050	0.0536	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool and Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-11-00
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-16-TCM QA/QC	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	02-16-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.067	0.066	1.5%	0% - 30%
Barium	ND	ND	0.001	0.585	0.582	0.5%	0% - 30%
Cadmium	ND	ND	0.001	0.035	0.035	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.022	0.022	0.0%	0% - 30%
Lead	ND	ND	0.001	0.031	0.031	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.037	0.036	2.7%	0% - 30%
Silver	ND	ND	0.001	0.016	0.016	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.067	0.566	99.8%	80% - 120%
Barium	0.500	0.585	1.08	99.8%	80% - 120%
Cadmium	0.500	0.035	0.534	99.8%	80% - 120%
Chromium	0.500	0.022	0.521	99.8%	80% - 120%
Lead	0.500	0.031	0.530	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.037	0.535	99.6%	80% - 120%
Silver	0.500	0.016	0.515	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

7673

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Halliburton Energy Services	4109 E Main Farmington, NM	
Sampler: Harland M. Brown	Client No. 92132-01	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o H&P						Remarks
Wash Bay Sludge	02.10.00	9:10	G811	Sludge	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harland M. Brown	02.10.00	10:05	[signature]	2.10.00	10:01
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
OCT 26 2000
Environmental Bureau
Oil Conservation Division
Env. JN: 92132-12

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton Energy Services
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4109 E Main St. Farmington NM.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of diesel Residual from Acid Rack area and Secondary Containment. Acid

MSDS Attached.

OCT 2000 RECEIVED OIL CON. DIV DIST. 3

Estimated Volume 2 drums cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 10.23.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 10/24/00

APPROVED BY: Martyn J. Kirby TITLE: Environmental Geologist DATE: 10/26/00

RECEIVED OCT 2 3 2000

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Halliburton Energy Services 4109 E. Main Street Farmington, NM 87402	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Halliburton Energy Services 4109 E. Main Street Farmington, NM 87402 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Absorbent Material from diesel spill.	

I, James L. Haney (Print Name) representative for:
Halliburton Energy Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

__ **EXEMPT** oilfield waste

✓ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

✓ MSDS Information
__ RCRA Hazardous Waste Analysis
__ Chain of Custody
__ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): James L. Haney

Title: Supervisor Shared Services

Date: 10-20-00

MATERIAL SAFETY DATA SHEET DATE: 10-20-00
HALLIBURTON ENERGY SERVICES REVISED DATE 04-07-99
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359
EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359

* * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * *

CHEMICAL CODE: DIESEL OIL - HAL-TANK PART NUMBER: 516003900
PKG QTY: 330 GALLON TANK APPLICATION: HYDROCARBON BASE
SERVICE USED: FRACTURING

* * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * *

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
DIESEL	> 60 %	NOT EST	NOT EST

* * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * *

PROPERTY	MEASUREMENT
APPEARANCE	CLEAR,COLORLESS LIQUID
ODOR	AMINE
SPECIFIC GRAVITY (H2O=1)	.840
BULK DENSITY	7.00 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	NIL
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	100
EVAPORATION RATE(BUTYL ACETATE=1)	<1
VAPOR DENSITY	5-6
VAPOR PRESSURE (MMHG)	1.00
BOILING POINT(760 MMHG)	300 F / 148 C
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

* * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE
FLASH POINT > 100 F / > 37 C FLASH MTHD TCC
AUTOIGNITION TEMPERATURE 495 F / 257 C
FLAMMABLE LIMITS (% BY VOLUME) LOWER .7 UPPER 6.0

++

EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.
FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND INJURIES.

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE AND CARBON MONOXIDE.

* * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : NTP, IARC, AND OSHA

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.

EYE:
MAY CAUSE EYE IRRITATION.

SKIN:
FREQUENT OR PROLONGED CONTACT WILL DRY AND DEFAT THE SKIN, POSSIBLY LEADING TO IRRITATION AND DERMATITIS. REPEATED CONTACT MAY SENSITIZE THE SKIN.

INHALATION:
HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.
VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:
ASPIRATION INTO LUNGS BY INGESTION OR VOMITING, MAY CAUSE CHEMICAL PNEUMONITIS RESULTING IN EDEMA AND HEMORRAGE AND MAY BE FATAL. SYMPTOMS INCLUDE INCREASED RESPIRATORY RATE AND BLUISH DISCOLORATION OF SKIN. COUGHING AND GAGGING ARE OFTEN NOTED AT THE TIME OF ASPIRATION.

CHRONIC EFFECTS:
PROLONGED OR REPEATED APPLICATION OF A SIMILAR PRODUCT TO THE SKIN OF LAB LABORATORY MICE WITHOUT WASHING BETWEEN APPLICATIONS RESULTED IN INCREASED INCIDENCE OF SKIN TUMORS. IT IS SUSPECTED THAT TUMORS MAY BE DUE IN PART TO SEVERELY IRRITATED CONDITIONS FROM CONTINOUS CONTACT WITH THE PRODUCT.

OTHER SYMPTOMS AFFECTED:
BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS.

---------- EMERGENCY AND FIRST AID PROCEDURES ----------

EYE:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.

SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL ATTENTION.

INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.

INGESTION:
DO NOT INDUCE VOMITING! ASPIRATION INTO LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO LUNGS.

* * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * *

STABILITY: STABLE
CONDITIONS TO AVOID:
HEAT, SPARKS AND OPEN FLAME.

INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON MONOXIDE AND/OR CARBON DIOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE. REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.
WASTE DISPOSAL METHOD:
GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

* * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * * *

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.
LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR EXPLOSIVE ATMOSPHERES (NEC CLASS I EQUIPMENT).
PROTECTIVE GLOVES:
IMPERVIOUS RUBBER GLOVES.
EYE PROTECTION:
WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

* * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * *

PRECAUTIONARY LABELING DIESEL OIL - HAL-TANK 516.003900

WARNING!
MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
COMBUSTIBLE!
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
KEEP FROM HEAT, SPARKS, AND OPEN FLAME.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

* * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * *

DOT SHIPPING DESCRIPTION:
DIESEL FUEL - 3 - NA1993 - III

* * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION

FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): Y MIXTURE OR PURE MATERIAL: PURE

B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)

N/A

C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA YES EEC N/D ACOIN N/D NPR YES DRSM YES

H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES MEET THE CRITERIA OF A HAZARDOUS WASTE AS DEFINED BY US EPA BECAUSE OF:

IGNITABILITY

* *

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

HALLIBURTON ENERGY SERVICES - SHIPPING PAPERS
FOR
MOVEMENT OF MATERIALS ACCORDING TO FEDERAL REGULATION
AS SPECIFIED IN CFR 49, SEC.177.817 AND 176.24

LOCATION: FARMINGTON

TRUCK# OR TRLR# :

FOR EMERGENCY CONTACT:
NAME: JIM HANEY
TELEPHONE: (505) 324-3500

DRIVER:

U.S. DOT HAZMAT REG. NO. - 060700 005 025I

```
*HM:*************************************************************************
*  * TOT GROSS LBS        7   NUM CONTAINERS:           TYPE: 330 GALLON TANK
*  *+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
*X *DIESEL FUEL - 3 - NA1993 - III
*  *
*  *
*  *
*  *HALCO NAME & NO.: DIESEL OIL - HAL-TANK                      516.00390
*  *       *   GROSS LBS/PKG: ________       ERG => 27
*************************************************************************
*************************************************************************
```

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

SIGNATURE _____

HALLIBURTON SERVICES DATE: 10/20/00
DUNCAN, OKLAHOMA 73536 REVISED DATE: 08/10/95

EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359
EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359

* *

POTENTIAL HAZARDS

FIRE OR EXPLOSION

FLAMMABLE/COMBUSTIBLE MATERIAL; MAY BE IGNITED BY HEAT, SPARKS OR FLAMES.
VAPORS MAY TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK.
CONTAINER MAY EXPLODE IN HEAT OF FIRE.
VAPOR EXPLOSION HAZARD INDOORS, OUTDOORS OR IN SEWERS.
RUNOFF TO SEWER MAY CREATE FIRE OR EXPLOSION HAZARD.

HEALTH HAZARDS

MAY BE POISONOUS IF INHALED OR ABSORBED THROUGH SKIN.
VAPORS MAY CAUSE DIZZINESS OR SUFFOCATION.
CONTACT MAY IRRITATE OR BURN SKIN AND EYES.
FIRE MAY PRODUCE IRRITATING OR POISONOUS GASES.
RUNOFF FROM FIRE CONTROL OR DILUTION WATER MAY CAUSE POLLUTION.

EMERGENCY ACTION

KEEP UNNECESSARY PEOPLE AWAY; ISOLATE HAZARD AREA AND DENY ENTRY.
STAY UPWIND; KEEP OUT OF LOW AREAS.
POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND STRUCTURAL FIREFIGHTERS' PROTECTIVE CLOTHING WILL PROVIDE LIMITED PROTECTION.
ISOLATE FOR 1/2 MILE IN ALL DIRECTIONS IF TANK, RAIL CAR OR TANK TRUCK IS INVOLVED IN FIRE.

FIRE

SMALL FIRES: DRY CHEMICAL, CO2, WATER SPRAY OR REGULAR FOAM.
LARGE FIRES: WATER SPARY, FOG OR REGULAR FOAM.
MOVE CONTAINER FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK.
APPLY COOLING WATER TO SIDES OF CONTAINERS THAT ARE EXPOSED TO FLAMES UNTIL WELL AFTER FIRE IS OUT. STAY AWAY FROM ENDS OF TANKS.
FOR MASSIVE FIRE IN CARGO AREA, USE UNMANNED HOSE HOLDER OR MONITOR NOZZLES; IF THIS IS IMPOSSIBLE, WITHDRAW FROM AREA AND LET FIRE BURN.
WITHDRAW IMMEDIATELY IN CASE OF RISING SOUND FROM VENTING SAFETY DEVICE OR ANY DISCOLORATION OF TANK DUE TO FIRE.

SPILL OR LEAK

SHUT OFF IGNITION SOURCES; NO FLARES, SMOKING OR FLAMES IN HAZARD AREA.
STOP LEAK IF YOU CAN DO IT WITHOUT RISK.
WATER SPRAY MAY REDUCE VAPOR; BUT IT MAY NOT PREVENT IGNITION IN CLOSED SPACES.
SMALL SPILLS: TAKE UP WITH SAND OR OTHER NONCOMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR LATER DISPOSAL.
LARGE SPILLS: DIKE FAR AHEAD OF LIQUID SPILL FOR LATER DISPOSAL.

FIRST AID

MOVE VICTIM TO FRESH AIR AND CALL EMERGENCY MEDICAL CARE; IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION; IF BREATHING IS DIFFICULT,

GIVE OXYGEN.
IN CASE OF CONTACT WITH MATERIAL, IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES. WASH SKIN WITH SOAP AND WATER.
REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES AT THE SITE.

CALL Emergency Response Telephone Number on Shipping Paper "FIRST". If Shipping Paper "NOT AVAILABLE" OR "NO ANSWER", CALL CHEMTREC AT 1-800-424-9300

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

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OCT 26 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original Plus 1 Copy to appropriate District Office

Env. JN: 92602-03

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ — Denny Foust Verbal 10-17-00 9:20 am	4. Generator Robert L Burgess
	5. Originating Site TJ Gas #3
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Burgess
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	SE4, Sec 34, T30N, R13W

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Soil Contaminated with oil/water emulsion from 2nd Stage Compressor scrubber

MSDS Attached

OCT 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 2 drum cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown Waste Management Facility Authorized Agent TITLE: Landfarm Manager DATE: 10-18-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 10/23/00

APPROVED BY: Martyn J Kirby TITLE: Environmental Geologist DATE: 10/26/00

Donut Foust
Verbal
10.17.00
9:20 a.m.

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
R. L. BAYLESS PO BOX 168 FARMINGTON, NM 87499	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): TIGER No. 3 GAS WELL SE/4 SEC 34, T30N, R13W SAN JUAN Co., NM Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste OIL-WATER EMULSION IN DIRT. EMULSION IS FROM SECOND STAGE COMPRESSOR SCRUBBER.	

I, TOM McCARTHY (Print Name) representative for:
R. L. BAYLESS do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

X NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Tom McCarthy

Title: ENGINEER

Date: 10/17/2000

THE HANOVER COMPANY

Facsimile Cover Sheet

Hanover Compressor
1280 Troy King Road
Farmington NM 87401
(505) 325-3220
(505) 325-2997 FAX

TO: Tom McCarthy

FROM: Debra Riddell Ext 112

DATE: 10/17/00

FAX NUMBER: 326-6911

6 PAGES (INCLUDING COVER SHEET)

MESSAGE MSDS sheet for compressor oil.
Please call if you can't read.

Thanks

DEBRA

THANK YOU.

602466-00 MOBIL PEGASUS 805
MATERIAL SAFETY DATA BULLETIN

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MOBIL PEGASUS 805
SUPPLIER: MOBIL OIL CORP.
NORTH AMERICA MARKETING AND REFINING
3225 GALLOWS RD.
FAIRFAX, VA 22037
24 - Hour Emergency (call collect): 609-737-4411
Product and MSDS Information: 800-662-4525 609-224-[illegible]
CHEMTREC: 800-424-9300 202-483 7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES
INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:
This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. See Section 15 for a regulatory analysis of the ingredients.
See Section 15 for European Label Information.
See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Light Amber Liquid. DOT ERG No.: NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem when ingested. If uncomfortable seek medical assistance.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers,

drinking water supply.
SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): 245(473) (ASTM D-92). Flammable limits - LEL: NE, UEL: NE.
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Possibly hydrocarbon fragments. Sulfur oxides and compounds.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.
ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.
PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.
APPEARANCE: Liquid
COLOR: Light Amber
ODOR: Marketable
ODOR THRESHOLD-ppm: NE

pH: NA
BOILING POINT C(F): NE
MELTING POINT C(F): NA
FLASH POINT C(F): 245(473) (ASTM D 92)
FLAMMABILITY: NE
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NE
RELATIVE DENSITY, 15/4 C: 0.89
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: NE
VISCOSITY AT 40 C, cSt: 130.0
VISCOSITY AT 100 C, cSt: 13.5
POUR POINT C(F): -12(10)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: NE
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Possibly hydrocarbon fragments. Sulfur oxides and compounds.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.
DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.
INHALATION TOXICITY (RATS): Not applicable --- Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.
EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: greater than 6 but 15 or less). ---Based on testing of similar products and/or the components.
SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined ...

severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, this product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.
RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.
RID/ADR: NOT REGULATED BY RID/ADR.
IMO: NOT REGULATED BY IMO.
IATA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS, AICS, and DSL.
EU Labeling:
Symbol: * EU labeling not required.
Risk Phrase(s): R.
NA
Safety Phrase(s): Not applicable.
U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".
SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.
This product contains no chemicals reportable under SARA (313) toxic release program.
The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
XYLENES (0.03%)	1330-20-7	22
ZINC (ELEMENTAL ANALYSIS) (& lt; 0.04%)	7440-66-6	22
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2:1) (ZDDP) (0.33%)	68649-42-3	22

--- REGULATORY LISTS SEARCHED ---

1=ACGIH ALL	6=IARC 1	11=TSCA 4	16=CA P65 CARC	21=MA RTK	
2=ACGIH A1	7=IARC 2A	12=TSCA 5a2	17=CA P65 REPRO	22=MI 293	
3=ACGIH A2	8=IARC 2B	13=TSCA 5e	18=CA RTK	23=MN RTK	
4=NTP CARC	9=OSHA CARC	14=TSCA 6	19=FL RTK	24=NJ RTK	
5=NTP SUS	10=OSHA Z	15=TSCA 12b	20=IL RTK	25=PA RTK	
				26=RI RTK	

Code key: CARC=Carcinogen; SUS=Suspected Carcinogen; REPRO=Reproductive

16. OTHER INFORMATION

USE: ENGINE LUBRICANT
NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

Please call the Customer Response Center on 800-662-4525 for formulation disclosure.

For Internal Use Only: MHC: 0* 0* NA 1* 1*, MPREC: A, TRN: 602466-00, GLIS: 400795, CMCS97: 970936, REQ: US - MARKETING, SAFF USR: L
EHS Approval Date: 10OCT1999

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

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OCT 26 2000
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Oil Conservation Division

Env. JN: 00075-01

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Evan Ready Oil
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Middle Mesa 32-7 CDP
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	W.F.S. 32-7 CDP.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of New Motor Oil Spill
MSDS & RCRA RCI Attached

OCT 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 5 dreams cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 10-23-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 10/23/00

APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 10/26/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Petrolink/DBA Ever Ready Oil 712 W Hwy 66 PO Box 2998 Milan, NM 87021	2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Production Operators Inc. (POI) Location of the Waste (Street address &/or ULSTR): South of Tiffany, Co. in New Mexico. Site is referred to Middle Mesa. Attach list of originating sites as appropriate	
4. Source and Description of Waste Pumping oil from transport into bulk storage when hose banding on camlock failed. Pegasus 485 (Mobil) was spilled on ground at Middle Mesa. Feoor dry was applied to spilled oil.	

I, Ron Awtrey Petrolink dba Ever Ready Oil representative for:
(Print Name)

_____ do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

X NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

X MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Ron Awtrey

Title: NAT

Date: 28/Oct/00

Ever Ready Oil
WFS/POI
32-7 CDP

Denise.
PDS I-43

Mobil

MATERIAL SAFETY DATA BULLETIN

1. PRODUCT AND COMPANY IDENTIFICATION

APPROVAL DATE: 01/01/95

PRODUCT NAME: MOBIL PEGASUS 485
SUPPLIER: MOBIL OIL CORP.
PRODUCTS AND TECHNOLOGY DEPT.
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Emergency (call collect):	609-737-4411	
Product and MSDS Information:	800-662-4525	703-849-3265
CHEMTREC:	800-424-9300	202-483-7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS CONSIDERED HAZARDOUS TO HEALTH:

This product is not formulated to contain ingredients which have exposure limits established by regulatory agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. See Section 15 for a regulatory analysis of the ingredients.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.
EFFECTS OF OVEREXPOSURE: No significant effects expected.
EMERGENCY RESPONSE DATA: Dark Amber Liquid. DOT ERG No. - NA

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

Mobil

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Point C(F): > 232(450) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA.
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Elemental oxides.

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.
ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.
PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.
STORAGE: Do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

Mobil

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a threshold limit value of 5.00 mg/m3 is suggested for oil mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

APPEARANCE: Liquid
COLOR: Dark Amber
ODOR: Mild
ODOR THRESHOLD: NA
pH: NA
BOILING POINT C(F): > 316(600)
MELTING POINT C(F): NA
FLASH POINT C(F): > 232(450) (ASTM D-92)
FLAMMABILITY: NA
AUTO FLAMMABILITY: NE
EXPLOSIVE PROPERTIES: NA
OXIDIZING PROPERTIES: NA
VAPOR PRESSURE-mmHg 20 C: < 0.1
VAPOR DENSITY: > 2.0
EVAPORATION RATE: NA
RELATIVE DENSITY, 15/4 C: 0.88
SOLUBILITY IN WATER: Negligible
PARTITION COEFFICIENT: > 3.5
VISCOSITY AT 40 C, cSt: 124.0
VISCOSITY AT 100 C, cSt: 12.5
POUR POINT C(F): -26(-15)
FREEZING POINT C(F): NE
VOLATILE ORGANIC COMPOUND: EXEMPT IN U.S.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER TECHNICAL INFORMATION, CONTACT YOUR MARKETING REPRESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable.
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Elemental oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL DATA

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Practically non-toxic (LC50: greater than 5 mg/l). ---Based on testing of similar products and/or the components.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: greater than 6 but 15 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: The acute toxicological results summarized above are based on testing of representative Mobil products. Representative Mobil formulations have shown no acute effects, administered via the inhalation route, when tested at maximum attainable oil mist or vapor concentrations.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Representative Mobil formulations have been tested at the Mobil Environmental and Health Sciences Laboratory by dermal applications to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations, including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---REPRODUCTIVE TOXICOLOGY (SUMMARY)---

Dermal exposure of pregnant rats to representative formulations did not cause adverse effects in either the mothers or their offspring.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using the Mobil

(Section continued next page)

Mobil

Modified Ames Test.

---SENSITIZATION (SUMMARY)---

Representative Mobil formulations have not caused skin sensitization in guinea pigs.

---OTHER TOXICOLOGY DATA---

Used gasoline engine oils have shown evidence of skin carcinogenic activity in laboratory tests when no effort was made to wash the oil off between applications. Used oil from diesel engines did not produce this effect.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS: Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DOT: NOT REGULATED BY USA DOT.

RID/ADR: NOT REGULATED BY RID/ADR.

IMO: NOT REGULATED BY IMO.

IATA: NOT REGULATED BY IATA.

Mobil

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS, and DSL.

EU Classification and Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals reportable under SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS) (0.03%)	7440-66-6	22
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2: 1) (ZDDP) (0.26%)	68649-42-3	22

--- REGULATORY LISTS SEARCHED ---

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK

Code key: CARC = Carcinogen; SUS = Suspected Carcinogen

Mobil

16. OTHER INFORMATION

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

USE: NATURAL GAS ENGINE OIL

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

See container label for ingredient information.

****

For Mobil Use Only: MHC: 1* 1* 0* 1* 1*, MPPEC: A, REQ: US - MARKETING, SAFE USE: L

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

Prepared by: Mobil Oil Corporation
Environmental Health and Safety Department, Princeton, NJ

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Ever Ready Oil	Project #:	007501
Sample ID:	Stockpile	Date Reported:	08-30-00
Lab ID#:	18042	Date Sampled:	08-25-00
Sample Matrix:	Soil	Date Received:	08-30-00
Preservative:	Cool	Date Analyzed:	08-30-00
Condition:	Cool and Intact	Chain of Custody:	7896

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.28**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **W.F.S. 32-7 CDP Pegasus 485 Upset.**

Analyst

Review

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

CHAIN OF CUSTODY RECORD

7896

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Ever Ready Oil	W.F.S 32-7 CDP	

Sampler:	Client No.
Cirrilleo Trujillo	007501

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	RCRA	RCRA						Remarks
Stockpile	8.25.00	10:30AM	18042	Soil	1	✓							Pegasus 485 upset.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	8.30.00	9:05	Allen L. Ayers	8.30.00	9:05
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

...II - (505) 748-1283
...First
..., NM 88210
...III - (505) 334-6178
...Rio Brazos Road
NM 87410
...IV - (505) 827-7131

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
OCT 0 3 2000
Environmental Bureau
Oil Conservation Division

Submit Origin...
Plus 1 Cop...
to appropria...
District Offi...

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Bondad 33-10 No 1A
Management Facility Destination Tierra Env. Land Farm	6. Transporter Key Energy
Address of Facility Operator 420 CR 3100 Aztec NM 87410	8. State CO
Location of Material (Street Address or ULSTR) Sec. 12, T33N R10W NMPM, La Plata County, CO.	

Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Dirt contaminated from hydraulic pump leak

Estimated Volume 11 Bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: Environmental Specialist DATE: 9/26/00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Jeremy De Bath TELEPHONE NO. 334-8894

(This space for State Use)

APPROVED BY: _____ TITLE: Environmental Geologist DATE: 10-3-00

APPROVED BY: _____ TITLE: Geologist DATE: 9/28/00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name):	**Location of the Waste (Street Address &/or ULSTR):**
S.G. Interests I, Ltd. Bondad 33-10 No. 12A (Attach list of origination sites as appropriate)	1297' FSL & 1556 FWL Sec. 12, T-33-N, R-10-W, NMPM LaPlata County, Colorado
4. Source and Description of Waste Dirt was contaminated with hydraulic oil when the hydraulic pump ruptured on a well service rig. Approximately 20-25 gallons of oil was spilled onto the ground. Crews removed free standing oil into containers as quickly as possible. The dirt will be approved for transportation to a NMOCD regulated facility located near Farmington, NM.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

_____ MSDS Information	__X__ Other (description):
_____ RCRA Hazardous Waste Analysis	Test Results from Inter Mountain
__X__ Chain of Custody	Laboratories, Inc.

Name (Original Signature): Bob James

Title: Farmington Shop Manager

Date: August 29, 2000

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

Grand Junction Regional Office
222 S. 6th St., Rm 232
Grand Junction, CO 81501-2768
Fax (970) 248-7198

Colorado Department
of Public Health
and Environment

August 31, 2000

Mr. Bob James
Key Energy Services Four Corners Division
P.O. Box 900
Farmington NM 87499

RE: Disposal and Transportation of Hydraulic Oil Contaminated Soil
Key Energy Serviced Four Corners Division
La Plata County

Dear Mr. James:

The data supplied August 29, 2000 for the above referenced material have been reviewed by our office. This material consists of hydraulic contaminated soil from well service rig rupture. The material has been characterized and may be transported and disposed of at a Landfill in New Mexico at the discretion of the owner/operator of that facility.

Please contact me in my office at 970-248-7168 if you require further information.

Sincerely,

Donna Stoner
Solid Waste Unit
Compliance Program

:ds

cc: SW LAP GEN
File

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

June 27, 2000

Bob James
Key Energy Services - Four Corners
P.O. Box 900
Farmington, NM 87499
TEL: (505) 327-4935
FAX (505) 327-4962

RE: Enervest West Animas 9-1 Order No.: 0006041

Dear Bob James,

On Site Technologies, LTD. received 1 sample on 6/15/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
ICP Metals-RCRA, Total (SW6010B)

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,

David Cox

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD. **Date:** *27-Jun-00*

CLIENT: Key Energy Services - Four Corners
Project: Enervest West Animas 9-1
Lab Order: 0006041

CASE NARRATIVE

One soil sample was sub-contracted to Inter-Mountain Laboratories.

P.O. BOX 2606 • FARMINGTON, NM 87499

jml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 · Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: On Site Technologies Limited

Project: Metals

Sample ID: 0006041-01A Enervest West Animas 9-1; Sample 1

Lab ID: 0300W02448

Matrix: Soil

Condition: Intact

Date Reported: 06/20/00

Date Sampled: 06/15/00

Date Received: 06/16/00

Date Analyzed: 06/20/00

Parameter	Analytical Result	PQL	MCL	Units
Method 3050 - Total Metals				
Arsenic	15	6	100	mg/Kg
Cadmium	1.0	0.5	20	mg/Kg
Chromium	8	1	100	mg/Kg
Lead	19	5	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:

On Site Technologies, LTD.
612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Subcontractor:

Inter-Mountain Laboratories
2506 W Main

Farmington, NM 87401

TEL: (505) 326-4737
FAX:

Acct #:

16-Jun-00

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests: SW6010B
0006041-01A	Soil	6/15/2000	4OZG	1

Comments: Please analyze one (1) soil sample for Total: Arsenic, Cadmium, Chromium and Lead.

		Date/Time			Date/Time
Relinquished by:	Heidi Rea	6/16/00 1620	**Received by:**		
Relinquished by:			**Received by:**		4/14/00 1620

RECEIVED JUN 23 2000

10466

ON SITE TECHNOLOGIES, LTD.

CHAIN OF CUSTODY RECORD

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 6-15-00

Page: 1 of 1

Purchase Order No.: [illegible]	Project No. [illegible]	**REPORT RESULTS TO** Name [illegible]	Title [illegible]
SEND INVOICE TO Name [illegible]		Company [illegible]	
Company [illegible]	Dept.	Mailing Address [illegible]	
Address [illegible]		City, State, Zip [illegible]	
City, State, Zip [illegible]		Telephone No. (505) [illegible] 4925	Telefax No. [illegible]

PROJECT LOCATION: [illegible]

SAMPLER'S SIGNATURE: [illegible]

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	PRES.	Number of Containers	[illegible], Pb								LAB ID
[illegible]														
[illegible] 1	[illegible]				1	✓								[illegible]41-01A

Relinquished by: [illegible]	Date/Time [illegible]	Received by: [illegible]	Date/Time 6/15/00 13:50
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Method of Shipment:		Rush X 24-48 Hours ☐ 10 Working Days ☐ By Date	

Authorized by: [illegible] Date 6-15-00
(Client Signature Must Accompany Request)

Special Instructions / Remarks: Need ASAP!
PHIL [illegible]

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

To Re-order Call 325-9600 or Fax 325-9764 alphagraphics FORM # 01

10466

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: _____

Page: _____ of _____

Purchase Order No.:	Project No.		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	Title
Company	Dept.	Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

PROJECT LOCATION:

SAMPLER'S SIGNATURE:

SAMPLE IDENTIFICATION	SAMPLE DATE	TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED	LAB ID

Relinquished by:	Date/Time	Received by:	Date/Time
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 | | By Date |

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Special Instructions / Remarks:

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
SEP 26 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 92132

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ — Denny Foust 9.19.00 9:45	4. Generator Halliburton Energy Services
	5. Originating Site Wash bay Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4109 E Main St Farmington, NM 87401

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contamination of wash bay Solids
TCLP Attached

Estimated Volume 40 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 9.18.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 9/22/00

APPROVED BY: Mike Williams TITLE: Environmental Geologist DATE: 9-26-00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Halliburton Energy Services 4109 E Main Farmington NMex 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Wash Bay See Above Holding Area Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): 4109 E Main Farmington NMex.
4. Source and Description of Waste Wash Bay Solids (continuation)	

I, Doug Hodges (Print Name) representative for: Halliburton Energy Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

✓ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

___ MSDS Information
✓ RCRA Hazardous Waste Analysis
✓ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Doug Hodges

Title: Maintenance Supervisor

Sept 19 / 2000

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which *Toxicity Characteristic Leaching* Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2/10/00

Printed Name Doug Hodges

Title / Agency Maintenance Supervisor

Address 4109 E Main

Farmington NM

Signature Doug Hodges

Date 9/19/00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 17, 2000

Mr. Doug Hodges
Halliburton Energy Services
4109 E. Main
Farmington, NM 87402

Phone: (505) 325-3575

Client No.: 92132-01
Job No.: 213201

Dear Mr. Hodges,

Enclosed are the analytical results for the sample collected from the location designated as "4109 E. Main, Farmington, NM". One sludge sample was collected by Envirotech personnel on 2/10/00, and received by the Envirotech laboratory on 2/10/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7673 and assigned Laboratory No. G811 (Wash Bay Sludge) for tracking purposes.

The sample was analyzed 2/10/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/Hall.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-10-00
Lab ID#:	G811	Date Sampled:	02-10-00
Sample Matrix:	Sludge	Date Received:	02-10-00
Preservative:	Cool	Date Analyzed:	02-10-00
Condition:	Cool and Intact	Chain of Custody:	7673

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.60**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**4109 E. Main, Farmington, NM.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0429**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0066**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **4109 E. Main, Farmington, NM.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **4109 E. Main, Farmington, NM.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **4109 E. Main, Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Analyzed:	02-16-00
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.064**	**0.001**	**5.0**
Barium	**0.640**	**0.001**	**21**
Cadmium	**0.035**	**0.001**	**0.11**
Chromium	**0.024**	**0.001**	**0.60**
Lead	**0.034**	**0.001**	**0.75**
Mercury	**0.002**	**0.001**	**0.025**
Selenium	**0.021**	**0.001**	**5.7**
Silver	**0.019**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **4109 E. Main, Farmington, NM.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**100%**
	Bromofluorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0129	0.0129	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0038	0.0038	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0129	0.050	0.0624	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0038	0.050	0.0536	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool and Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-11-00
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-16-TCM QA/QC	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	02-16-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.067	0.066	1.5%	0% - 30%
Barium	ND	ND	0.001	0.585	0.582	0.5%	0% - 30%
Cadmium	ND	ND	0.001	0.035	0.035	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.022	0.022	0.0%	0% - 30%
Lead	ND	ND	0.001	0.031	0.031	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.037	0.036	2.7%	0% - 30%
Silver	ND	ND	0.001	0.016	0.016	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.067	0.566	99.8%	80% - 120%
Barium	0.500	0.585	1.08	99.8%	80% - 120%
Cadmium	0.500	0.035	0.534	99.8%	80% - 120%
Chromium	0.500	0.022	0.521	99.8%	80% - 120%
Lead	0.500	0.031	0.530	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.037	0.535	99.6%	80% - 120%
Silver	0.500	0.016	0.515	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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CHAIN OF CUSTODY RECORD

7673

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Halliburton Energy Services	4109 E Main Farmington, NM	
Sampler: Harlan M. Brown	Client No. 92132-01	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o H&P						Remarks
Wash Bay Sludge	02.10.00	9:10	G811	Sludge	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M. Brown	02-10-00	10:05	Glenn L. Spencer	2.10.00	10:01
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
OCT 0 3 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original Plus 1 Copy to appropriate District Office

Env. JN: 98059-01

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Universal Compression
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Wash Bay Solids
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Servanis
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	1125 US Hwy 516 Aztec, NM. 87410

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Continuation of Wash bay solids

SEP 2000
RECEIVED
OIL CONS. DIV.
DIST. 3

Estimated Volume 1700 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 9-27-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 9/28/00

APPROVED BY: Martyn J. Kirby TITLE: Environmental Geologist DATE: 10-3-00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Universal Compression 1125 US Hwy 516 Aztec, N.M. 87410	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): 1125 U.S. Hwy 516 Aztec, N.M. 87410 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Wastewater From Washing Compressors & Equipment	

I, Gregg Self (Print Name) representative for: Universal Compression, Inc. do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

X NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Gregg Self

Title: Applications Coordinator

Date: 9-27-00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 12-3-99

Printed Name Gregg A. Self

Title / Agency Universal Compression

Address 425 U.S. Hwy 516

Aztec, N.M. 87410

Signature [signature]

Date 9-27-00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Universal Compression	Project #:	805901
Sample ID:	Compressor Lube	Date Reported:	12-03-99
Lab ID#:	G526	Date Sampled:	12-01-99
Sample Matrix:	Soil	Date Received:	12-01-99
Preservative:	Cool	Date Analyzed:	12-03-99
Condition:	Cool and Intact	Chain of Custody:	7582

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.29**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **U.S Hwy 550.**
Field PHC; Spills & Leaks.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Universal Compression	Project #:	805901
Sample ID:	Compressor Lube	Date Reported:	12-08-99
Laboratory Number:	G526	Date Sampled:	12-01-99
Chain of Custody:	7582	Date Received:	12-01-99
Sample Matrix:	TCLP Extract	Date Extracted:	12-03-99
Preservative:	Cool	Date Analyzed:	12-07-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0023**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0138**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **U.S. Hwy. 550. Field PHC; Spills & Leaks.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Universal Compression	Project #:	805901
Sample ID:	Compressor Lube	Date Reported:	12-07-99
Laboratory Number:	G526	Date Sampled:	12-01-99
Chain of Custody:	7582	Date Received:	12-01-99
Sample Matrix:	TCLP Extract	Date Extracted:	12-03-99
Preservative:	Cool	Date Analyzed:	12-07-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **U. S. Hwy. 550. Field PHC; Spills & Leaks.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Universal Compression	Project #:	805901
Sample ID:	Compressor Lube	Date Reported:	12-07-99
Laboratory Number:	G526	Date Sampled:	12-01-99
Chain of Custody:	7582	Date Received:	12-01-99
Sample Matrix:	TCLP Extract	Date Extracted:	12-03-99
Preservative:	Cool	Date Analyzed:	12-07-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **U. S. Hwy. 550. Field PHC; Spills & Leaks.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Universal Compression	Project #:	805901
Sample ID:	Compressor Lube	Date Reported:	12-08-99
Laboratory Number:	G526	Date Sampled:	12-01-99
Chain of Custody:	7582	Date Received:	12-01-99
Sample Matrix:	TCLP Extract	Date Analyzed:	12-08-99
Preservative:	Cool	Date Extracted:	12-03-99
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.050**	**0.001**	**5.0**
Barium	**1.05**	**0.001**	**21**
Cadmium	**0.053**	**0.001**	**0.11**
Chromium	**0.025**	**0.001**	**0.60**
Lead	**0.073**	**0.001**	**0.75**
Mercury	**0.005**	**0.001**	**0.025**
Selenium	**0.029**	**0.001**	**5.7**
Silver	**0.098**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **U. S. Hwy. 550. Field PHC; Spills & Leaks.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	12-08-99
Laboratory Number:	12-07-TCLP VOL	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-07-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	12-08-99
Laboratory Number:	12-03-TCLP VOL	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-07-99
Condition:	N/A	Date Extracted:	12-03-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	12-08-99
Laboratory Number:	G525	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	12-07-99
Condition:	N/A	Date Extracted:	12-03-99

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0026	0.0026	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0050	0.0050	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	12-08-99
Laboratory Number:	G525	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	12-07-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0026	0.050	0.0521	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0050	0.050	0.0548	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	12-07-99
Laboratory Number:	12-07-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-07-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	12-07-99
Laboratory Number:	12-03-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-03-99
Condition:	Cool & Intact	Date Analyzed:	12-07-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	12-07-99
Laboratory Number:	G526	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	12-07-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	12-07-99
Laboratory Number:	12-07-TBN-Blank	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	12-07-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	12-07-99
Laboratory Number:	12-03-TBN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	12-03-99
Condition:	Cool and Intact	Date Analyzed:	12-07-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**101%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	12-07-99
Laboratory Number:	G526	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	12-03-99
Condition:	N/A	Date Analyzed:	12-07-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample G525 - G526.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	12-08-TCM QA/QC	Date Reported:	12-08-99
Laboratory Number:	G525	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	12-08-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.013	0.013	0.0%	0% - 30%
Barium	ND	ND	0.001	0.399	0.396	0.8%	0% - 30%
Cadmium	ND	ND	0.001	0.064	0.063	1.6%	0% - 30%
Chromium	ND	ND	0.001	0.064	0.064	0.0%	0% - 30%
Lead	ND	ND	0.001	0.029	0.029	0.0%	0% - 30%
Mercury	ND	ND	0.001	0.007	0.007	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.058	0.059	1.7%	0% - 30%
Silver	ND	ND	0.001	0.038	0.038	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.013	0.512	99.8%	80% - 120%
Barium	0.500	0.399	0.897	99.8%	80% - 120%
Cadmium	0.500	0.064	0.563	99.8%	80% - 120%
Chromium	0.500	0.064	0.563	99.8%	80% - 120%
Lead	0.500	0.029	0.528	99.8%	80% - 120%
Mercury	0.050	0.007	0.056	98.2%	80% - 120%
Selenium	0.500	0.058	0.557	99.8%	80% - 120%
Silver	0.500	0.038	0.539	100.2%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G525 - G526.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

7582

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Universal Compression	U.S. Hwy 550	
Sampler: Harlan M. Brown	Client No. 98059-01	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o H:P						Remarks
Compressor Lube	12.1.99	14:00	C526	Soil	1	✓						Field PHC; Spill & Leak

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	12.1.99	14:50	Chris M Walk	12.1.99	14:50
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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

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

rict II - (505) 748-1283
S. First
sia, NM 88210
rict III - (505) 334-6178
) Rio Brazos Road
:, NM 87410
rict IV - (505) 827-7131

Energy, Minerals and Natural Resources Department

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
OCT 0 3 2000
Environmental Bureau
Oil Conservation Division

Submit Original Plus 1 Copy to appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00040

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Forest Road 31
2. Management Facility Destination Tierra land Farm	6. Transporter Key
3. Address of Facility Operator #420 CR 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Forest Road 31	Sec. 2 T. 30N R. 5W

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B.) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil

SEP 2000 RECEIVED OIL CON. DIV DIST. 3

This was moved as emergency

Estimated Volume 1 cy Known Volume (to be entered by the operator at the end of the haul) 1 cy

SIGNATURE: David Bonavita Waste Management Facility Authorized Agent TITLE: Land Farm Manager DATE: 6-30-00

TYPE OR PRINT NAME: David Bonavita TELEPHONE NO. 334-8894

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 9/30/00

APPROVED BY: Martyne Kieling TITLE: Environmental Geologist DATE: 10-3-00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name):	**Location of the Waste (Street Address &/or ULSTR):**
Forest Road 31	Section 2 Township 30 North Range 5 West
(Attach list of origination sites as appropriate)	
4. Source and Description of Waste Water truck in in route to well site when tie rod on truck broke causing the truck to go into the bar ditch. The fuel line was broken, spilling 50 gallons of diesel onto the ground. The dirt will be dug up and transported to Tierra Environmental for disposal.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

__X__ MSDS Information
_____ RCRA Hazardous Waste Analysis
_____ Chain of Custody
_____ Other (description):

This waste is in comlieance with Regulated Levels of Naturally Occurring Radioactive Material (NORM0 pursant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: June 29, 2000

September 30, 1998

USA and WORLDWIDE

Material Safety Data Sheet

NO. 2 LOW SULFUR DISTILLATE

PHILLIPS 66 COMPANY
A Division of Phillips Petroleum Company
Bartlesville, Oklahoma 74004

PHONE NUMBERS
Emergency: (918) 661-8118
General MSDS Information: (918) 661-3709
For Additional MSDSs: (918) 661-3709

A. Product Identification

Synonyms: Low Sulfur Diesel Fuel; #2 Distillate
Chemical Name: Mixture
Chemical Family: Hydrocarbons
Chemical Formula: Mixture
CAS Reg. No.: 68476-34-6
Product No.: 34260, 35260

Product and/or Components Entered on EPA's TSCA Inventory: YES

This product is in U.S. commerce, and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence, it may be subject to applicable TSCA provisions and restrictions.

B. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
Diesel fuel	68476-34-6	100	NE	NE
may include Benzene	71-43-2	< 50 ppm	1 ppm*	10 ppm
Sulfur	7704-34-9	< 0.05	NE	NE

* Work operations exempted by the Benzene Standard, 29 CFR 1910.1028, will have a 10 ppm 8 hour TWA.

NA - Not Applicable NE - Not Established

C. Personal Protection Information

Ventilation:	Use adequate ventilation.
Respiratory Protection:	Not generally required unless needed to prevent respiratory irritation. In case of spill or leak resulting in unknown concentration, use NIOSH/MSHA approved supplied air respirator.
Eye Protection:	For splash protection, use chemical goggles and face shield.
Skin Protection:	Use gloves resistant to the material being used. (ie. neoprene or Nitrile rubber). Use protective garments to prevent excessive skin contact.

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Do not get in eyes, on skin or on clothing. Avoid breathing vapors, mist, fume or dust. Do not swallow. May be aspirated into lungs. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Wash thoroughly after handling. Launder contaminated clothing before reuse. Use with adequate ventilation.

Keep away from heat, sparks, and flames. Store in a well-ventilated area. Store in a closed container. Bond and ground during transfer.

E. Reactivity Data

Stability:	Stable
Conditions to Avoid:	Not Established
Incompatibility (Materials to Avoid):	Oxygen and strong oxidizing agents
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	Not Established
Hazardous Decomposition Products:	Carbon and sulfur oxides and various hydrocarbons formed when burned.

F. Health Hazard Data

Recommended Exposure Limits:

Not Established

Acute Effects of Overexposure:

Eye: May cause mild irritation, with stinging and redness of the eyes.

Skin: May cause severe irritation. Repeated or prolonged contact may cause defatting of the skin, resulting in dermatitis. Dermal LD50 for diesel fuel is > 5 ml/kg (rabbit)

Inhalation: May cause irritation to nose, throat or lungs. Headache, nausea, dizziness, unconsciousness may occur.

Ingestion: May cause irritation to mouth, throat and stomach. May cause headache, nausea, unconsciousness. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs. Oral LD50 for diesel fuel is 9 ml/kg (rat).

Subchronic and Chronic Effects of Overexposure:

No known applicable information.

Other Health Effects:

Combustion (burning) of most carbon-containing material forms carbon monoxide. Carbon monoxide inhalation may cause carboxyhemoglobinemia. Chronic exposure to carbon monoxide causes fatigue, poor memory, loss of sensation in fingers, visual disturbances and insomnia. Carboxyhemoglobinemia is frequently misdiagnosed as flu.

Sensitive sub-populations to the inhalation of carbon monoxide exist. Carbon monoxide displaces oxygen in the bloodstream and therefore, can adversely affect people with pre-existing heart disease, pregnant women

Combustion, normal use of diesel fuel, results in an exhaust that has been associated with lung cancer in animals. There is limited evidence to suggest an association between occupational exposure to diesel exhaust and lung cancer in humans.

Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	___	___	Toxic	___	___
Suspect Carcinogen	___	___	Corrosive	___	___
Mutagen	___	___	Irritant	X	X
Teratogen	___	___	Target Organ Toxin	X	X
Allergic Sensitizer	___		Specity - Lung-Aspiration Hazard		
Highly Toxic	___	___			

First Aid and Emergency Procedures:

Eye: Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Immediately wash skin with soap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If breathing is difficult, give oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

G. Physical Data

Appearance:	Amber liquid
Odor:	Mild
Boiling Point:	300-690F (149-366C)
Vapor Pressure:	Not Established
Vapor Density (Air = 1):	>1
Solubility in Water:	Negligible
Specific Gravity (H2O = 1):	0.8762 @ 60/60F (16/16C)
Percent Volatile by Volume:	100
Evaporation Rate (Butyl Acetate=1):	<1
Viscosity:	32.6 - 37.9 SUS @ 100 F (38C)

H. Fire and Explosion Data

Flash Point (Method Used):	> 115F (> 46C) (PMCC, ATSM D-93)
Flammable Limits (% by Volume in Air):	LEL - Not Established UEL - Not Established
Fire Extinguishing Media:	Dry chemical, foam or carbon dioxide (CO2)
Special Fire Fighting Procedures:	Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA approved self-contained breathing apparatus and other protective equipment and/or garments described in Section C if conditions warrant. Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire - product will float and could be reignited on surface of water.
Fire and Explosion Hazards:	Carbon and sulfur oxides and various hydrocarbons formed when burned.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:
Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material (sand, clay, etc.). Transfer to disposal drums using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or place in permitted waste management facility.

J. DOT Transportation

Shipping Name:	Fuel oil (No. 2)
Hazard Class:	3 (Flammable liquid)
ID Number:	NA 1993
Packing Group:	III
Marking:	Fuel oil (No. 2), NA 1993
Label:	Flammable liquid
Placard:	Flammable/1993
Hazardous Substance/RQ:	Not applicable
Shipping Description:	Fuel oil (No. 2), 3 (Flammable liquid), NA 1993, PG III
Packaging References:	49 CFR 173.150, 173.203, 173.241

NOTE: This product may be reclassed as a combustible liquid when shipped domestically, by land only. If reclassed as a combustible liquid, this product is unregulated by DOT when shipped in non-bulk quantities.

K. RCRA Classification - Unadulterated Product as a Waste

Ignitable (D001)

Prior to disposal, consult your environmental contact to determine if TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

_X_ This product meets the following hazard definition(s) as defined by the Occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):

_X_ Combustible Liquid	___ Flammable Aerosol	___ Oxidizer
___ Compressed Gas	___ Explosive	___ Pyrophoric
___ Flammable Gas	_X_ Health Hazard (Section F)	___ Unstable
___ Flammable Liquid	___ Organic Peroxide	___ Water Reactive
___ Flammable Solid		

___ Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

N. Additional Comments

SARA 313

As of the preparation date, this product did not contain a chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

ict II - (505) 748-1283
5. First
ia, NM 88210
ict III - (505) 334-6178
Rio Brazos Road
:, NM 87410
ict IV - (505) 827-7131

Energy, Minerals and Natural Resources Department

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
OCT 0 3 2000
Environmental Bureau
Oil Conservation Division

Submit Original Plus 1 Copy to appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00039

1. RCRA Exempt: ☐ Non-Exempt: ☒ D. Foust	4. Generator Weatherford yard
Verbal Approval Received 6-26-00 Yes ☒ No ☐	5. Originating Site same ↑
2. Management Facility Destination Tierra Landfarm	6. Transporter Foutz Const.
3. Address of Facility Operator #20 CR 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Weatherford yard	114 N Cochiti Ave Farmington

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil

SEP 2000
RECEIVED
OIL CON. DIV
DIST. 3

I don't know why I would have given a verbal on this David has been out with injury since July 1st

Estimated Volume 20 cy Known Volume (to be entered by the operator at the end of the haul) 20 cy

SIGNATURE: David Bowcutt TITLE: Land Farm Manager DATE: 6-30-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME David Bowcutt TELEPHONE NO. 334-8894

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 9/28/00

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 10-3-00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505) 334-6177

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Weatherford U.S.L.P. 515 Post Oak Blvd. Suite 600 Houston, TX 77027	TIERRA Environmental Company Inc. 420 C.R. 3100 Aztec, NM 87401
3. Originating Site (name):	Location of the Waste (Street address &/or ULSTR):
Weatherford U.S.L.P. Drilling & Intervention Services	114 N. Cochiti Ave. Farmington, NM 87401
Attach list of originating sites as appropriate	
4. Source and Description of Waste	
The waste consists of approximately 30 cubic yards of hydrocarbon impacted soil accumulated during yard clean up operations at the facility. Potential hydrocarbon sources are diesel fuel and oil used during service operations at the facility. The facility was used to service and store oilfield drilling and service equipment.	

I, David R. Phillips (Print Name) representative for: Weatherford Under Ballance Sec 4.65. do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

✓ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
✓ RCRA Hazardous Waste Analysis
✓ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): David R. Phillips

Title: HSE Rep

Date: 6-26-00

ORGANIC ANALYSIS REPORT

Client: Wilson Environmental
Collected: June 9, 2000
Received: June 12, 2000

Contact: C.B. Jacobson
Analyzed: June 16, 2000
Extracted: June 15, 2000

Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L41545-06A
Field Sample ID: **FC-SP**
Site ID: **Weatherford/Farmington**

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Analytical Results for TCLP — ***Semi Volatile Organics by GC/MS***

Units = mg/L

Compound	Reporting Limit	Amount Detected
3 & 4-Methylphenol	0.050	< 0.050
2-Methylphenol	0.050	< 0.050
2,4-Dinitrotoluene	0.050	< 0.050
Hexachlorobenzene	0.050	< 0.050
Hexachlorobutadiene	0.050	< 0.050
Hexachloroethane	0.050	< 0.050
Nitrobenzene	0.050	< 0.050
Pyridine	0.25	< 0.25
Pentachlorophenol	0.25	< 0.25
2,4,6-Trichlorophenol	0.050	< 0.050
2,4,5-Trichlorophenol	0.050	< 0.050

Released by: _____
Laboratory Supervisor

Report Date: June 21, 2000 Page 1 of 1

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: Wilson Environmental
Date Sampled: June 9, 2000
Project: Weatherford/Farmington

Contact: C.B. Jacobson
Date Received: June 12, 2000

Lab Sample ID:
L41545-06A

Field Sample ID:
FC-SP

TCLP METALS Method 1311

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Arsenic	mg/L	6/15/00	6010B	2.0	< 2.0
Barium	mg/L	6/15/00	6010B	0.050	< 0.050
Cadmium	mg/L	6/15/00	6010B	0.030	< 0.030
Chromium	mg/L	6/15/00	6010B	0.050	< 0.050
Lead	mg/L	6/15/00	6010B	0.10	< 0.10
Selenium	mg/L	6/15/00	6010B	0.50	< 0.50
Silver	mg/L	6/15/00	6010B	0.10	< 0.10

Released by: SDM
Laboratory Supervisor

Report Date: June 19, 2000 Page 1 of 1

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: Wilson Environmental
Date Sampled: June 9, 2000
Project: Weatherford/Farmington

Contact: C.B. Jacobson
Date Received: June 12, 2000

Lab Sample ID:
L41545-06A

Field Sample ID:
FC-SP

TCLP METALS Method 1311

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Arsenic	mg/L	6/15/00	6010B	2.0	< 2.0
Barium	mg/L	6/15/00	6010B	0.050	< 0.050
Cadmium	mg/L	6/15/00	6010B	0.030	< 0.030
Chromium	mg/L	6/15/00	6010B	0.050	< 0.050
Lead	mg/L	6/15/00	6010B	0.10	< 0.10
Selenium	mg/L	6/15/00	6010B	0.50	< 0.50
Silver	mg/L	6/15/00	6010B	0.10	< 0.10

Released by: SDH
Laboratory Supervisor

Report Date: June 19, 2000 Page 1 of 1

ORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: Wilson Environmental
Collected: June 9, 2000
Received: June 12, 2000

Contact: C.B. Jacobson
Analyzed: June 15, 2000

Analysis Requested: Purge & Trap by GC/MS SW846 #8260B/5030A

Lab Sample ID: L41545-06A
Field Sample ID: **FC-SP**
Site ID: Weatherford/Farmington

Analytical Results for TCLP — **F&D VOLATILES**

Units = mg/L

Compound	Reporting Limit	Amount Detected
Acetone	0.20	< 0.20
Benzene	0.040	< 0.040
2-Butanone	0.20	< 0.20
Carbondisulfide	0.040	< 0.040
Carbon tetrachloride	0.040	< 0.040
Chlorobenzene	0.040	< 0.040
Chloroform	0.040	< 0.040
Cyclohexanone	2.0	< 2.0
1,2-Dichlorobenzene	0.040	< 0.040
1,4-Dichlorobenzene	0.040	< 0.040
1,2-Dichloroethane	0.040	< 0.040
1,1-Dichloroethene	0.040	< 0.040
Ethyl acetate	0.10	< 0.10
Ethyl ether	0.10	< 0.10
Ethylbenzene	0.040	< 0.040
Isobutanol	4.0	< 4.0
Methylene chloride	0.040	< 0.040
4-Methyl-2-pentanone	0.10	< 0.10
2-Nitropropane	0.20	< 0.20
Tetrachloroethene	0.040	< 0.040
Toluene	0.040	< 0.040
1,1,1-Trichloroethane	0.040	< 0.040
1,1,2-Trichloroethane	0.040	< 0.040
Trichloroethene	0.040	< 0.040
Trichlorofluoromethane	0.040	< 0.040
Vinyl chloride	0.020	< 0.020
o-Xylene	0.040	< 0.040
m & p Xylene	0.040	< 0.040

Released by: _____
Laboratory Supervisor

Report Date: June 21, 2000 Page 1 of 1

INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES

463 West 3600 South
Salt Lake City, Utah
84115

(801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687

Client: Wilson Environmental
Date Sampled: June 9, 2000
Project: Weatherford/Farmington

Contact: C.B. Jacobson
Date Received: June 12, 2000

Lab Sample ID:
L41545-06B

Field Sample ID:
FC-SP

Analytical Results	Units	Date Analyzed	Method Used	Reporting Limit	Amount Detected
Flashpoint	°F	6/14/00	1010	200	>200
pH	pH units	6/13/00	9045C	0	7.30
Reactive Cyanide	mg/kg	6/13/00	4500CNE	5.0	< 5.0
Reactive Sulfide	mg/kg	6/14/00	4500S2E	50	< 50

Released by: SOH
Laboratory Supervisor

Report Date: June 21, 2000 Page 1 of 1

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
AUG 23 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 98065-04

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy Services
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	5651 US. Hwy 64 Farmington, NM 87401

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean diesel spill in main yard.

AUG 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 10 cy cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown Waste Management Facility Authorized Agent TITLE: Landfarm Manager DATE: 8-18-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 8/22/00

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 8-23-00

RECEIVED AUG 1 8 2000

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-617(

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington, NM 84701	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Highway 64, Farmington, NM 87401
3. Originating Site: (name): Key Energy Services Farmington Facility 5651 US Highway 64 Farmington, NM 87401 (Attach list of origination sites as appropriate)	**Location of the Waste (Street Address &/or ULSTR):** 36 42.14 North 108 06.79 West
4. Source and Description of Waste Contaminated dirt from a diesel fuel spill inside of our yard. A tank that was leased to customer was stored in Key's yard for a few days. Key provided supervision on the clean up by Envirotech.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

__X__ MSDS Information
_____ RCRA Hazardous Waste Analysis
__X__ Chain of Custody
_____ Other (description):

Name (Original Signature): Bob E James

Title: Farmington Shop Manager

Date: August 18, 2000

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

No. 2 Diesel Fuel

GASC0220 Revised 2-MAR-1999

Material Identification

CAS Number : 68476-34-6

Tradenames and Synonyms

Diesel Fuel No. 2, Low Sulfur
Diesel Fuel No. 2, High Sulfur

Company Identification

MANUFACTURER/DISTRIBUTOR
Conoco, Inc.
P.O. Box 2197
Houston, TX 77252

PHONE NUMBERS
Product Information : 1-281-293-5550
Transport Emergency : CHEMTREC 1-800-424-9300
Medical Emergency : 1-800-441-3637

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
DIESEL FUEL, NO. 2	68476-34-6	100

Petroleum distillate standard applies.

3. HAZARDS IDENTIFICATION

Potential Health Effects

Primary Routes of Entry: Skin, inhalation

The product may cause irritation to the eyes, nose, throat, lungs, and skin after prolonged or repeated exposure. Extreme overexposure or aspiration into the lungs may cause lung damage or death. Overexposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness, and other nervous system effects; greater overexposure may cause dizziness, slurred speech, flushed face, unconsciousness, and convulsions.

Combustion Product - Carbon Monoxide:

Carbon monoxide decreases the ability of the blood to carry oxygen.

Inhalation may cause headache, nausea, rapid respirations, vomiting, dizziness, confusion, impaired judgement, personality changes, memory impairment, weakness, shortness of breath, unconsciousness, convulsions and death if not treated. It may cause chest pains in persons with heart disease. Carbon monixde

poisoning can cause pallor (whiteness) or cyanosis (blueness) of the skin and extremities.

High exposures to carbon monoxide may cause heart irregularities.

Carbon monoxide may adversely affect the unborn babies of pregnant women.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. FIRST AID MEASURES

First Aid

INHALATION
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT
Wash skin thoroughly with soap and water. If irritation develops and persists, consult a physician.

EYE CONTACT
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION
If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	: 130 F (54 C)
Method	: TCC
Flammable limits in Air, % by Volume	
LEL	: 0.4
UEL	: 6
Autoignition	: 494 F (257 C)

Vapor forms explosive mixture with air. Vapors or gases may travel considerable distances to ignition source and flash back.

NFPA Classification : Class II Combustible Liquid.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Use water to keep fire-exposed containers cool. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for personnel attempting to stop a leak. Water spray may be used to flush spills away from sources of potential ignition.

Products of combustion may contain carbon monoxide, carbon dioxide, and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

M

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Remove source of heat, sparks, flame, impact, friction and electricity including internal combustion engines and power tools. If equipment is used for spill cleanup, it must be explosion proof and suitable for flammable liquid and vapor.

S

NOTE: Vapors released from the spill may create an explosive atmosphere.

Initial Containment

Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material.

D

7. HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing vapors or mist. Wash thoroughly after handling. Wash clothing after use.

Handling (Physical Aspects)

S

Ground container when pouring. Keep away from heat, sparks and flames. Close container after each use. Do not pressurize, cut, weld, braze, solder, grind, or drill on or near full or empty container. Empty container retains residue (liquid and/or vapor) and may explode in heat of fire.

Storage

Store in a well ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations. Store away from heat, sparks and flames, oxidizers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment

RESPIRATORY PROTECTION
Select appropriate NIOSH-approved respiratory protective equipment when exposed to sprays or mists. Select appropriate NIOSH-approved respiratory protection where necessary to maintain exposures below acceptable limits. Proper respirator selection should be determined by adequately trained personnel and based on the contaminant(s), the degree of potential exposure, and published respirator protection factors.

PROTECTIVE GLOVES
Should be worn when the potential exists for prolonged or repeated skin contact. NBR or neoprene recommended.

EYE PROTECTION
Safety glasses with side shields. Chemical splash goggles or face shield for spray/mists or if splashing can occur.

OTHER PROTECTIVE EQUIPMENT
Coveralls with long sleeves if splashing is probable.

Exposure Guidelines

Applicable Exposure Limits
Petroleum distillate standard applies.

PEL	(OSHA)	: 500 ppm, 2000 mg/m3, 8 Hr. TWA
TLV	(ACGIH)	: None Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	: 350-690 F (177-366 C)
Vapor Pressure	: 1 mm Hg @ 68 F (20 C)
Vapor Density	: >1 (Air=1.0)
% Volatiles	: Nil
Solubility in Water	: Insoluble
Odor	: Aromatic.
Form	: Liquid.
Color	: *
Specific Gravity	: 0.84-0.88 @ 60 F (16 C))

*Color : Red or Undyed (Clear or Straw-Colored)

10. STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Conditions to Avoid

Heat, sparks, and flames.

MSDS

Incompatibility with Other Materials

Incompatible or can react with strong oxidizers.

Decomposition

Carbon monoxide may be formed from incomplete combustion.

Polymerization

Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Animal Data

Animal studies have shown that prolonged or repeated inhalation exposures to high concentrations of some petroleum distillates have caused liver tumors in mice and kidney damage and tumors in male rats. However, kidney effects were not seen in similar studies involving female rats, guinea pigs, dogs, or monkeys. Present studies indicate the kidney effects will only occur in male rats. Also, human studies do not indicate this peculiar sensitivity for kidney damage and studies reported in 1992 showed that this particular type of rat kidney damage is not useful in predicting a human health hazard. The significance of liver tumors in mice exposed to high doses of chemicals is highly speculative and probably not a good indicator for predicting a potential human carcinogenic hazard.

Mouse skin painting studies have shown that petroleum middle distillates (boiling range 100-700 F; naphtha, jet fuel, diesel fuel, kerosene, etc.) can cause skin cancer when repeatedly applied and never washed from the animal's skin. The relative significance of this to human health is uncertain since the petroleum distillates were not washed from the skin and resulting skin effects (irritation, cell damage, etc.) may play a role in the tumorigenic response. A few studies have shown that washing the animal's skin with soap and water between treatments greatly reduces the carcinogenic effect of some petroleum oils. Other laboratory studies indicate that middle distillates caused the skin tumors by promoting, rather than initiating, the formation of tumors, so the effect is probably dose-related and low level exposure should not be carcinogenic.

Studies in mice and rats have shown that chronic exposure (8 hours/day, 7 days/week, 24 months) to unfiltered diesel exhaust produced tumors of the lungs and also lymphomas. On the basis of these studies, NIOSH recommends that whole diesel exhaust be regarded as a potential carcinogen.

Acute toxicity data from studies supported by the American Petroleum Institute with a generic #2 fuel oil sample:

Oral, LD50 (rats)	: 7-21 mL/kg
Skin, LD50 (rabbits)	: >5 mL/kg
Skin Irritation (rabbits; index, 0-8)	: 3-4
Eye Irritation (rabbits; index, 0-110)	: 1
Skin Sensitization (guinea pigs)	: Non-sensitizing

12. ECOLOGICAL INFORMATION

MSDS

Ecotoxicological Information

No specific aquatic data available for this product.

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

By itself, the liquid is expected to be a RCRA ignitable hazardous waste.

Container Disposal

Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner.

14. TRANSPORTATION INFORMATION

Shipping Information

DOT

Proper Shipping Name	: Diesel fuel
Hazard Class	: Combustible liquid
I.D. No. (UN/NA)	: NA1993
Packing Group	: III
DOT Label(s)	: None
DOT Placard	: Combustible

ICAO/IMO

Proper Shipping Name	: Gas Oil
Hazard Class	: 3
UN/NA Number	: UN1202
Packing Group	: III
Label	: Flammable liquid
Placard	: Flammable

15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA HAZARD DETERMINATION
This material is hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA/SUPERFUND
Not applicable; this material is covered by the CERCLA petroleum exclusion.

SARA, TITLE III, 302/304
This material is not known to contain extremely hazardous substances.

MSDS

SARA, TITLE III, 311/ 312
Acute : Yes
Chronic : Yes
Fire : Yes
Reactivity : No
Pressure : No

SARA, TITLE III, 313
This material is not known to contain any chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and subject to release reporting requirements.

TSCA
This material is in the TSCA Inventory of Chemical Substances (40 CFR 710) and/or is otherwise in compliance with TSCA.

RCRA
This material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it meets criteria for being ignitable according to U. S. EPA definitions (40 CFR 261). This material could also become a hazardous waste if it is mixed with or comes in contact with a listed hazardous waste. If it is a hazardous waste, regulations at 40 CFR 262-266 and 268 may apply.

CLEAN WATER ACT
The material contains the following ingredient(s) which is considered hazardous if spilled into navigable waters and therefore reportable to the National Response Center (1-800-424-8802).

Ingredient : Petroleum Hydrocarbons.
Reportable Quantity : Film or sheen upon or discoloration of any water surface.

State Regulations (U.S.)

CALIFORNIA "PROP 65"
This material is not known to contain any ingredient(s) subject to the Act.

PENNSYLVANIA WORKER & COMMUNITY RIGHT TO KNOW ACT
This material may contain the following ingredient(s) subject to the Pennsylvania Worker and Community Right to Know Hazardous Substances List.

Ingredient : Diesel Fuel Oil
Category : Hazardous Substance.

Canadian Regulations

CLASS B Division 3 - Combustible Liquid.
CLASS D Division 2 Subdivision B - Toxic Material. Chronic Toxic Effects.

16. OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating
Health : 0
Flammability : 2
Reactivity : 0

MSDS

NPCA-HMIS Rating

Health	: 1
Flammability	: 2
Reactivity	: 0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS	: MSDS Coordinator Conoco Inc.
Address	: PO Box 2197 Houston, TX 77252
Telephone	: 1-281-293-4386

# Indicates updated section.

End of MSDS

MSDS

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	806504
Sample ID:	Yard Stockpile	Date Reported:	08-18-00
Lab ID#:	H993	Date Sampled:	08-17-00
Sample Matrix:	Soil	Date Received:	08-18-00
Preservative:	Cool	Date Analyzed:	08-18-00
Condition:	Cool and Intact	Chain of Custody:	8121

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.27**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **5651 Hwy 64 Diesel Spill Cleanup.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

08121

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Key Energy	5651 Hwy 64	
Sampler: Niel Wiltanton	Client No. 806504	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	BCRA & CH						Remarks
Yard Stockpile	8-17-00	14:55	H993	Soil	1	✓						Diesel Spill cleanup

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	8-18-00	6:30	Adrian L. Ogburn	8-18-00	6:30
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

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Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 92132

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ — Denny Foust 7:26:00 16:00.	4. Generator Halliburton Energy Services
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	5. Originating Site Forest Road 312 Truck accident
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	6. Transporter Envirotech
7. Location of Material (Street Address or ULSTR)	8. State New Mexico
9. Circle One:	SE4, Sec 27 T30N, R4W Rio Arriba County.

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of diesal, Anti-freeze, used oil & Hydraulic oil at a vehicle accident

AUG 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 12 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown (Waste Management Facility Authorized Agent) TITLE: Landfarm Manager DATE: 8-18-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 8/18/00

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 8/22/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Halliburton Energy Services 4109 E Main, ST. Farmington NM 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (Name): Forest Road 312 SE4, Sec 27, T30N, R4W Rio Arriba County, NM, Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Clean up of vehicle liquids (Diesel, Hyraulic oil, used oil, & Anti Freeze) at a truck accident.	

I, ROBERT SMITH (Print Name) representative for: HALLIBURTON ENERGY SERVICE do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

T NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

___ MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): ROBERT SMITH

Title: HSE ADVISOR

Date: 8-14-00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton Energy Serv.	Project #:	213209
Sample ID:	Stockpile	Date Reported:	08-03-00
Lab ID#:	H848	Date Sampled:	08-02-00
Sample Matrix:	Soil	Date Received:	08-03-00
Preservative:	Cool	Date Analyzed:	08-03-00
Condition:	Cool and Intact	Chain of Custody:	8099

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.10**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Forest Rd 312.**
Diesel, Anti-Freeze, Used Oil Contaminated Soil.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Halliburton Energy Serv.	Project #:	213209
Sample ID:	Stockpile	Date Reported:	08-04-00
Laboratory Number:	H848	Date Sampled:	08-02-00
Chain of Custody:	8099	Date Received:	08-03-00
Sample Matrix:	Soil	Date Analyzed:	08-04-00
Preservative:	Cool	Date Extracted:	08-03-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.113**	**0.001**	**5.0**
Barium	**0.924**	**0.001**	**100**
Cadmium	**0.088**	**0.001**	**1.0**
Chromium	**0.082**	**0.001**	**5.0**
Lead	**0.184**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**0.027**	**0.001**	**1.0**
Silver	**0.204**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Forest Rd 312.**
Diesel, Anti-Freeze, Used Oil Contaminated Soil.

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	08-04-TCM QA/QC	Date Reported:	08-04-00
Laboratory Number:	H848	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	08-04-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.113**	**0.112**	**0.9%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**0.924**	**0.926**	**0.2%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.088**	**0.087**	**1.1%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.082**	**0.082**	**0.0%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.184**	**0.182**	**1.1%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**ND**	**ND**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.027**	**0.027**	**0.0%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.204**	**0.202**	**1.0%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.113**	**0.610**	**99.5%**	**80% - 120%**
Barium	**0.500**	**0.924**	**1.42**	**99.7%**	**80% - 120%**
Cadmium	**0.500**	**0.088**	**0.588**	**100.0%**	**80% - 120%**
Chromium	**0.500**	**0.082**	**0.581**	**99.8%**	**80% - 120%**
Lead	**0.500**	**0.184**	**0.681**	**99.6%**	**80% - 120%**
Mercury	**0.050**	**ND**	**0.049**	**98.0%**	**80% - 120%**
Selenium	**0.500**	**0.027**	**0.526**	**99.8%**	**80% - 120%**
Silver	**0.500**	**0.204**	**0.700**	**99.4%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample H848.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

08099

Client / Project Name	Project Location	Sampler	Client No.
HALLiBurton ENERGY Serv.	Forest Rd 312	Harlan W. Brown	92132-09

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP Metals	RCRA RCI					Remarks
Stockpile	8.2.00	15:15	H848	Soil	1	✓	✓					Diesel, Anti-Freeze Used Oil Contaminated Soil.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	8.3	8:15	[signature]	8-3-00	8:15
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

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Oil Conservation Division

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Originated 8/8/95

Submit Original Plus 1 Copy to appropriate District Office

Env. JN: 92132-09

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☑ No ☐ — Denny Foust & Martyne Kelly 7.19.00 16:30 Verbal	4. Generator Halliburton Energy Services
	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Serrano's
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4109 Eddin Farmington NM.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

700-1000 gal of light LGC VIII Gel on a cleanout Transport Residual material from ~~Mud~~ Tank cleanout.

Estimated Volume 700-1000g cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown Waste Management Facility Authorized Agent TITLE: Landfarm Manager DATE: 7.21.00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 8/18/00

APPROVED BY: Martyne Kelly TITLE: Environmental Geologist DATE: 8/22/00

7.19.00
16:30
Verbal OK
Dawn Foost
& Martyne Kieling

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Halliburton Energy Services 4109 N. Main Farmington, New Mexico	2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Shed Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste 700-1000 gallons of LGC VIII rinse water on a transport. (light gel consistency)	

I, ROBERT SMITH (Print Name) representative for:
HALLIBURTON ENERGY SERVICES do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

X MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): ROBERT SMITH

Title: HSE ADVISOR

Date: 7-20-00

4600 g.

MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 03-23-00
REVISED DATE 04-07-99

EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359
EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359

* * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * *

CHEMICAL CODE: LGC-VIII CONCENTRATE - BULK PART NUMBER: 516005670
PKG QTY: CARGO TANK APPLICATION: CONCENTRATE
SERVICE USED: STIMULATION

* * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * *

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
GUAR GUM 4000 lb.	31-60 %	10 MG/M3	15 MG/M3
ETHOXYLATED NONYLPHENOL	1-10 %	NOT EST	NOT EST
DIESEL 1080 gallon	31-60 %	NOT EST	NOT EST

* * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * *

PROPERTY	MEASUREMENT
APPEARANCE	YELLOWISH LIQUID, GEL
ODOR	DIESEL
SPECIFIC GRAVITY (H2O=1)	1.035
BULK DENSITY	8.62 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	NIL
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	100
EVAPORATION RATE(BUTYL ACETATE=1)	<1
VAPOR DENSITY	5-6
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	300 F / 148 C
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

* * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE
FLASH POINT 128 F / 53 C FLASH MTHD TCC
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D
++
EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED

CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND INJURIES.

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND NITROGEN OXIDES.

* * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:

PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:

PRODUCT OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN ACCORDING TO : NTP, IARC, AND OSHA

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

EYE:

MAY CAUSE EYE IRRITATION.

SKIN:

FREQUENT OR PROLONGED CONTACT WILL DRY AND DEFAT THE SKIN, POSSIBLY LEADING TO IRRITATION AND DERMATITIS. REPEATED CONTACT MAY SENSITIZE THE SKIN.

INHALATION:

HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.

VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA AND VOMITING, DIARRHEA, AND COLLAPSE MAY RESULT FROM INGESTION.

ASPIRATION INTO LUNGS BY INGESTION OR VOMITING, MAY CAUSE CHEMICAL PNEUMONITIS RESULTING IN EDEMA AND HEMORRAGE AND MAY BE FATAL. SYMPTOMS INCLUDE INCREASED RESPIRATORY RATE AND BLUISH DISCOLORATION OF SKIN.

COUGHING AND GAGGING ARE OFTEN NOTED AT THE TIME OF ASPIRATION.

CHRONIC EFFECTS:

PROLONGED OR REPEATED APPLICATION OF A SIMILAR PRODUCT TO THE SKIN OF LAB LABORATORY MICE WITHOUT WASHING BETWEEN APPLICATIONS RESULTED IN INCREASED INCIDENCE OF SKIN TUMORS. IT IS SUSPECTED THAT TUMORS MAY BE DUE IN PART TO SEVERELY IRRITATED CONDITIONS FROM CONTINOUS CONTACT WITH THE PRODUCT.

OTHER SYMPTOMS AFFECTED:

BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS.

---------- EMERGENCY AND FIRST AID PROCEDURES ----------

EYE:

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.

SKIN:

PROMPTLY WASH SKIN WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL

ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! ASPIRATION INTO LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO LUNGS.

* * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * *

STABILITY: STABLE
CONDITIONS TO AVOID:
HEAT, SPARKS AND OPEN FLAME.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE. REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.
WASTE DISPOSAL METHOD:
GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

* * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * * *

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.
IN OXYGEN DEFICIENT AREAS OR CONFINED SPACES, POSITIVE PRESSURE SUPPLIED-AIR RESPIRATOR WITH 5-MINUTE AUXILIARY BOTTLE, OR PRESSURE-DEMAND OR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.
LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR COMBUSTIBLE ATMOSPHERES (NEC CLASS II EQUIPMENT).
PROTECTIVE GLOVES:
IMPERVIOUS RUBBER GLOVES.
EYE PROTECTION:
WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

* * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * *

WARNING!
MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
COMBUSTIBLE!
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
KEEP FROM HEAT, SPARKS, AND OPEN FLAME.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

* * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * *

DOT SHIPPING DESCRIPTION:
DIESEL FUEL SOLUTION - 3 - NA1993 - III

* * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): Y MIXTURE OR PURE MATERIAL: MIX

B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
N/A

C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

COMPONENT NAME	CAS-REG-NO	PCT
ETHOXYLATED NONYLPHENOL	9016-45-9	1-10 %

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACOIN N/D NPR NE DRSM NE

H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES MEET THE CRITERIA OF A HAZARDOUS WASTE AS DEFINED BY US EPA BECAUSE OF:

IGNITABILITY

* *

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY

SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

...II - (505) 748-1283
First ...
...NM 88210
...III - (505) 334-6178
...io Brazos Road
...NM 87410
...IV - (505) 827-7131

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Submit Origi...
Plus 1 Co...
to appropria...
District Offi...

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy
Verbal Approval Received: Yes ☐ No ☑	5. Originating Site Key Energy
Management Facility Destination Tierra Environmental	6. Transporter Riley
Address of Facility Operator 4LO CR 3100 Aztec 87401	8. State N.M.
Location of Material (Street Address or ULSTR) Key Energy	5651 HWY 64 Farmington 8740

Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

...IEF DESCRIPTION OF MATERIAL:

Waste From Shop Sumps

...imated Volume _____ cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

...GNATURE: Jay Bath (Waste Management Facility Authorized Agent) TITLE: Environmental Specialist DATE: 8/2/00

...PE OR PRINT NAME: Jeremy J. Bath TELEPHONE NO. 334-8894

...his space for State Use)

...PROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 8-7-00

Deny Jant Geologist 8/2/00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name):	**Location of the Waste (Street Address &/or ULSTR):**
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington, NM 87401 (Attach list of origination sites as appropriate)	Shop Sumps of our Main Facility located at the address listed to the left.
4. Source and Description of Waste This waste was generated at the above address in the main rig shop, wash bay and engine shop. This is the solid waste that was washed off the equipment prior, during, and after repair.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

___ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

___ MSDS Information
___ RCRA Hazardous Waste Analysis
__X__ Chain of Custody
__X__ Other (description): Testing done by Envirotech, Please note test results.

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: July 31, 2000

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

July 20, 2000

Mr. Bob James
Key Energy Service, Inc.
P.O. Box 900
Farmington, NM 87499

Phone: (505) 327-0416

Client No.: 98065-03
Job No.: 806503

Dear Mr. James,

Enclosed are the analytical results for the sample collected from the location designated as "Rig Shop Sump". One sludge sample was collected by Envirotech personnel on 7/14/00, and received by the Envirotech laboratory on 7/14/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 8071 and assigned Laboratory No. H738 (Rig Shop Sump) for tracking purposes.

The sample was analyzed 7/17/00 thru 7/19/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Key Energy	Project #:	806503
Sample ID:	Rig Shop Sump	Date Reported:	07-17-00
Lab ID#:	H735	Date Sampled:	07-14-00
Sample Matrix:	Sludge	Date Received:	07-14-00
Preservative:	Cool	Date Analyzed:	07-17-00
Condition:	Cool and Intact	Chain of Custody:	8071

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 6.88**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **5651 US Hwy 64.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	Key Energy	Project #:	806503
Sample ID:	Rig Shop Sump	Date Reported:	07-18-00
Laboratory Number:	H735	Date Sampled:	07-14-00
Chain of Custody:	8071	Date Received:	07-14-00
Sample Matrix:	TCLP Extract	Date Extracted:	07-17-00
Preservative:	Cool	Date Analyzed:	07-18-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**0.0760**	**0.0001**	**0.2**
1,1-Dichloroethene	**0.0101**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0049**	**0.0001**	**200**
Chloroform	**0.0528**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0017**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**0.0153**	**0.0005**	**0.7**
Chlorobenzene	**0.0067**	**0.0003**	**100**
1,4-Dichlorobenzene	**0.0014**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **5651 US Hwy 64.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Key Energy	Project #:	806503
Sample ID:	Rig Shop Sump	Date Reported:	07-19-00
Laboratory Number:	H735	Date Sampled:	07-14-00
Chain of Custody:	8071	Date Received:	07-14-00
Sample Matrix:	TCLP Extract	Date Extracted:	07-17-00
Preservative:	Cool	Date Analyzed:	07-19-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	0.217	0.020	200
p,m-Cresol	0.094	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **5651 US Highway 64.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Key Energy	Project #:	806503
Sample ID:	Rig Shop Sump	Date Reported:	07-19-00
Laboratory Number:	H735	Date Sampled:	07-14-00
Chain of Custody:	8071	Date Received:	07-14-00
Sample Matrix:	TCLP Extract	Date Extracted:	07-17-00
Preservative:	Cool	Date Analyzed:	07-19-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **5651 US Hwy 64.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Key Energy	Project #:	806503
Sample ID:	Rig Shop Sump	Date Reported:	07-19-00
Laboratory Number:	H735	Date Sampled:	07-14-00
Chain of Custody:	8071	Date Received:	07-14-00
Sample Matrix:	TCLP Extract	Date Analyzed:	07-19-00
Preservative:	Cool	Date Extracted:	07-17-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.938**	**0.001**	**5.0**
Barium	**1.07**	**0.001**	**100**
Cadmium	**0.802**	**0.001**	**1.0**
Chromium	**0.063**	**0.001**	**5.0**
Lead	**0.317**	**0.001**	**5.0**
Mercury	**ND**	**0.001**	**0.2**
Selenium	**ND**	**0.001**	**1.0**
Silver	**0.002**	**0.001**	**5.0**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **5651 US Hwy 64.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-18-00
Laboratory Number:	07-18-TCLP VOL	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-18-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for sample H735.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	07-18-00
Laboratory Number:	07-17-TCLP Vol	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-18-00
Condition:	N/A	Date Extracted:	07-17-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-18-00
Laboratory Number:	H735	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-18-00
Condition:	N/A	Date Extracted:	07-17-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	0.0760	0.0760	0.0001	0.0%
1,1-Dichloroethene	0.0101	0.0101	0.0001	0.0%
2-Butanone (MEK)	0.0049	0.0049	0.0001	0.0%
Chloroform	0.0528	0.0528	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0017	0.0017	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	0.0153	0.0153	0.0005	0.0%
Chlorobenzene	0.0067	0.0067	0.0003	0.0%
1,4-Dichlorobenzene	0.0014	0.0014	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	07-18-00
Laboratory Number:	H735	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	07-18-00
Condition:	N/A	Date Extracted:	07-17-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	0.0760	0.050	0.126	0.0001	100%	28-163
1,1-Dichloroethene	0.0101	0.050	0.0595	0.0001	99%	43-143
2-Butanone (MEK)	0.0049	0.050	0.0544	0.0001	99%	47-132
Chloroform	0.0528	0.050	0.103	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0017	0.050	0.0515	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0495	0.0003	99%	35-146
Tetrachloroethene	0.0153	0.050	0.0647	0.0005	99%	26-162
Chlorobenzene	0.0067	0.050	0.0561	0.0003	99%	38-150
1,4-Dichlorobenzene	0.0014	0.050	0.0508	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-19-00
Laboratory Number:	07-19-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-19-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	07-19-00
Laboratory Number:	07-17-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	07-17-00
Condition:	Cool & Intact	Date Analyzed:	07-19-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-19-00
Laboratory Number:	H735	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	07-17-00
Condition:	Cool & Intact	Date Analyzed:	07-19-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	0.217	0.215	0.020	1.0%
p,m-Cresol	0.094	0.092	0.040	2.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

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

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

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

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	07-19-00
Laboratory Number:	07-19-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	07-19-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	07-19-00
Laboratory Number:	07-19-TBN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	07-17-00
Condition:	Cool and Intact	Date Analyzed:	07-19-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	07-19-00
Laboratory Number:	H735	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	07-17-00
Condition:	N/A	Date Analyzed:	07-19-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample H735.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	07-19-TCM QA/QC	Date Reported:	07-19-00
Laboratory Number:	H735	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	07-19-00
Condition:	N/A	Date Extracted:	07-17-00

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.938	0.936	0.2%	0% - 30%
Barium	ND	ND	0.001	1.07	1.06	0.9%	0% - 30%
Cadmium	ND	ND	0.001	0.802	0.803	0.1%	0% - 30%
Chromium	ND	ND	0.001	0.063	0.064	1.6%	0% - 30%
Lead	ND	ND	0.001	0.317	0.316	0.3%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	0.002	0.002	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.938	1.44	100.1%	80% - 120%
Barium	0.500	1.07	1.56	99.4%	80% - 120%
Cadmium	0.500	0.802	1.30	99.8%	80% - 120%
Chromium	0.500	0.063	0.561	99.6%	80% - 120%
Lead	0.500	0.317	0.815	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	ND	0.497	99.4%	80% - 120%
Silver	0.500	0.002	0.501	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample H735.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

08071

Client / Project Name	Project Location
Key Energy	5651 US Hwy 64
Sampler: HARLAN M. BROWN	**Client No.** 98065-03

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o HEP					Remarks
RigsHop Sump	7.14.00	15:15	H735	Sludge	1	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	7.14.00	15:45	[signature]	7.14.00	15:45
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

Sample Receipt

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
JUN 19 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 60050-01

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☑ No ☐ — Denny Foust 5.26.00 9:50	4. Generator CF&M
	5. Originating Site Aztec Moto Cross
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter CF&M
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	Sec 12, T30N, R11W SAN Juan County, NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:
Lube oil (?). discharge @ moto cross track

(Burlington Sit Compressorsite)
~~Spill~~ Spill

JUN 2000 RECEIVED OIL CON. DIV DIST. 3

Estimated Volume 60 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown Waste Management Facility Authorized Agent TITLE: Landfarm Manager DATE: 06-08-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 6/15/00

APPROVED BY: Martyne J. Kelly TITLE: Environmental Geologist DATE: 6/19/00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
CF&M OIL FIELD SERVICE INC #37 COUNTY ROAD 5267 FARMINGTON NM 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop,New Mexico 5796 US Hwy 64, Farmington, NM 87401

3. Originating Site (name): **Location of the Waste (Street address &/or ULSTR):**

AZTEC MOTOCROSS TRACK. AZTEC NEW MEXICO UNIT "O" SEC. 12, TOWNSHIP 30 NORTH, RANGE 11 WEST 1220 FT FROM SOUTHLINE, 1813 FT FROM WESTLINE SAN JUAN COUNTY

Attach list of originating sites as appropriate

4. Source and Description of Waste

OIL FIELD WASTE RESIDUAL OIL FROM THE TRUCK TANK BOTTOMS

I, GERRY FOXWELL (Print Name) representative for:

CF&M OIL FIELD SERVICES INC do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

XX **EXEMPT** oilfield waste

___ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

___ MSDS Information
XX RCRA Hazardous Waste Analysis
XX Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): _____

Title: PRESIDENT

Date: 06/07/00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS

Client:	CF & M	Project #:	005001
Sample ID:	5 Point on North Jumps	Date Reported:	05-26-00
Laboratory Number:	H341	Date Sampled:	05-25-00
Chain of Custody:	7886	Date Received:	05-25-00
Sample Matrix:	Soil	Date Analyzed:	05-26-00
Preservative:	Cool	Date Digested:	05-26-00
Condition:	Cool & Intact	Analysis Needed:	RCRA Metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Arsenic	**0.124**	**0.002**
Barium	**1.20**	**0.002**
Cadmium	**0.126**	**0.002**
Chromium	**0.188**	**0.002**
Lead	**0.472**	**0.002**
Mercury	**0.006**	**0.002**
Selenium	**ND**	**0.002**
Silver	**0.028**	**0.002**

ND - Parameter not detected at the stated detection limit.

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

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

Comments: **Aztec Motor Cross Track.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

TRACE METAL ANALYSIS
Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	05-26-TM QA/QC	Date Reported:	05-26-00
Laboratory Number:	H341	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Analysis Requested:	Trace Metals	Date Analyzed:	05-26-00
Condition:	N/A	Date Digested:	05-26-00

Blank & Duplicate Conc. (mg/L)	Instrument Blank (mg/L)	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.002	0.124	0.128	3.2%	0% - 30%
Barium	ND	ND	0.002	1.20	1.20	0.0%	0% - 30%
Cadmium	ND	ND	0.002	0.126	0.126	0.0%	0% - 30%
Chromium	ND	ND	0.002	0.188	0.190	1.1%	0% - 30%
Lead	ND	ND	0.002	0.472	0.470	0.4%	0% - 30%
Mercury	ND	ND	0.002	0.006	0.006	0.0%	0% - 30%
Selenium	ND	ND	0.002	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.002	0.028	0.028	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	1.00	0.124	1.12	100%	80% - 120%
Barium	1.00	1.20	2.20	100%	80% - 120%
Cadmium	1.00	0.126	1.12	99%	80% - 120%
Chromium	1.00	0.188	1.19	100%	80% - 120%
Lead	1.00	0.472	1.47	100%	80% - 120%
Mercury	0.100	0.006	0.104	98%	80% - 120%
Selenium	1.00	ND	0.996	100%	80% - 120%
Silver	1.00	0.028	1.03	100%	80% - 120%

ND - Parameter not detected at the stated detection limit.

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

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

Comments: **QA/QC for sample H341.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

7886

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
CF&M	Aztec MotorCross Track.	

Sampler:	Client No.
Harlan M. Brown	00050-01

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	RCRA 8 Metals						Remarks
5 Point. on North jumps	5.25.00	13:30	H341	Soil	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	5.25.00	14:10	Glenn L. Spencer	5-25-00	14:10
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
MAY 22 2000
Environmental Bureau
Oil Conservation Division

Env. JN: 92132

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton Energy Service
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4109 E. Main St. Farmington, NM 87401

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Continuation of wash bay Solids
TCLP & Reafirmation Statement Attached

MAY 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 40 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown
Waste Management Facility Authorized Agent
TITLE: Landfarm Manager DATE: 5-17-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 5/18/00

APPROVED BY: Marilynn J. Kirby TITLE: Environmental Geologist DATE: 5/22/00

RECEIVED MAY 17 2000

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Halliburton Energy Service 4109 E Main Farmington N Mexico 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): Wash Bay (S) above Holding Area Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): 4109 E Main Farmington N Mex
4. Source and Description of Waste Wash Bay solids (contamination)	

I, Doug Hodges (Print Name) representative for:

Halliburton Energy Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

✓ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

___ MSDS Information
✓ RCRA Hazardous Waste Analysis
✓ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Doug Hodges

Title: Maintenance Supervisor

Date: 5/16/00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

RECEIVED MAY 17 2000

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 12-10-00

Printed Name Doug Hodges

Title / Agency Maintenance Supervisor

Address 4109 E Main

Farmington NMex

Signature Doug Hodges

Date 5/16/00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 17, 2000

Mr. Doug Hodges
Halliburton Energy Services
4109 E. Main
Farmington, NM 87402

Phone: (505) 325-3575

Client No.: 92132-01
Job No.: 213201

Dear Mr. Hodges,

Enclosed are the analytical results for the sample collected from the location designated as "4109 E. Main, Farmington, NM". One sludge sample was collected by Envirotech personnel on 2/10/00, and received by the Envirotech laboratory on 2/10/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7673 and assigned Laboratory No. G811 (Wash Bay Sludge) for tracking purposes.

The sample was analyzed 2/10/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/Hall.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-10-00
Lab ID#:	G811	Date Sampled:	02-10-00
Sample Matrix:	Sludge	Date Received:	02-10-00
Preservative:	Cool	Date Analyzed:	02-10-00
Condition:	Cool and Intact	Chain of Custody:	7673

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 7.60**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **4109 E. Main, Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0429	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0066	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **4109 E. Main, Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **4109 E. Main, Farmington, NM.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **4109 E. Main, Farmington, NM.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Halliburton Energy Services	Project #:	213201
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G811	Date Sampled:	02-10-00
Chain of Custody:	7673	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Analyzed:	02-16-00
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.064**	**0.001**	**5.0**
Barium	**0.640**	**0.001**	**21**
Cadmium	**0.035**	**0.001**	**0.11**
Chromium	**0.024**	**0.001**	**0.60**
Lead	**0.034**	**0.001**	**0.75**
Mercury	**0.002**	**0.001**	**0.025**
Selenium	**0.021**	**0.001**	**5.7**
Silver	**0.019**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **4109 E. Main, Farmington, NM.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0129	0.0129	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0038	0.0038	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0129	0.050	0.0624	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0038	0.050	0.0536	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool and Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-11-00
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-16-TCM QA/QC	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	02-16-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.067	0.066	1.5%	0% - 30%
Barium	ND	ND	0.001	0.585	0.582	0.5%	0% - 30%
Cadmium	ND	ND	0.001	0.035	0.035	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.022	0.022	0.0%	0% - 30%
Lead	ND	ND	0.001	0.031	0.031	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.037	0.036	2.7%	0% - 30%
Silver	ND	ND	0.001	0.016	0.016	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.067	0.566	99.8%	80% - 120%
Barium	0.500	0.585	1.08	99.8%	80% - 120%
Cadmium	0.500	0.035	0.534	99.8%	80% - 120%
Chromium	0.500	0.022	0.521	99.8%	80% - 120%
Lead	0.500	0.031	0.530	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.037	0.535	99.6%	80% - 120%
Silver	0.500	0.016	0.515	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

7673

Client / Project Name	Project Location
Halliburton Energy Services	4109 E Main, Farmington, NM

Sampler:	Client No.
Harlan M. Brown	92132-01

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o HgP					Remarks
Wash Bay Sludge	02.10.00	9:10	G811	Sludge	1	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M. Brown	02-10-00	10:05	[signature]	2.10.00	10:05
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

Revised 5-15-00 mjk

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 00018-01

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Engineer Cleanup Verbal Approval Received: Yes ☒ No ☐	4. Generator ILLEGAL Dump 5. Originating Site C.R. 5030 SITE
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	Se¼ Sec 9, T29N, R11W, SJC.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of soil contaminated w/ emulsified oil ~~& water~~.
TCLP ~~w/o H&P~~ Analysis Attached.
RCRA RCA Attached

Estimated Volume ± 300 cy cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 05-15-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 5/17/00

APPROVED BY: Marilyn Hills TITLE: Environmental Geologist DATE: 5-16-00

RECEIVED MAY 4 2000

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
USDI-BLM Environmental Compliance 1235 E. La Plata Hwy, Ste A. Farmington, NM. 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): ILLEGAL Dump SITE County Rd. 5030 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): SE ¼ Sec 9, T29N, R11W, SJC.
4. Source and Description of Waste Illegally dumped emulsified oil & water.	

I, Ruben A. Sanchez representative for:
(Print Name)

Bureau of Land Mgt. - Dept. of Interior 1235 La Plata Hwy Farmington, NM do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

__ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

__ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
__ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Ruben A. Sanchez

Title: Environmental Protection Team Lead

Date: May 2, 2000

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

April 19, 2000

Mr. Ruben Sanchez
Bureau of Land Management
1235 La Plata Hwy
Farmington, NM 87401

Phone: (505) 599-6319

Project No.: 00018
Job No.: 001801

Dear Mr. Randalman,

Enclosed are the analytical results for one soil sample collected from the location designated as "CR 5030". One soil sample was collected by Envirotech designated personnel on 4/11/00, and received by the Envirotech laboratory on 4/11/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7782 and assigned Laboratory No. H097 (5 Pt. #1) for tracking purposes. The sample was analyzed 4/12/00 - 4/18/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/BLM.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	BLM	Project #:	001801
Sample ID:	5 Pt. #1	Date Reported:	04-18-00
Lab ID#:	H097	Date Sampled:	04-11-00
Sample Matrix:	Soil	Date Received:	04-11-00
Preservative:	Cool	Date Analyzed:	04-12-00
Condition:	Cool and Intact	Chain of Custody:	7782

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.78**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **CR 5030. 5 Pt. Composite.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	BLM	Project #:	001801
Sample ID:	5 Pt. #1	Date Reported:	04-17-00
Laboratory Number:	H097	Date Sampled:	04-11-00
Chain of Custody:	7782	Date Received:	04-11-00
Sample Matrix:	Soil	Date Extracted:	04-12-00
Preservative:	Cool	Date Analyzed:	04-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0416	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0158	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **CR 5030.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	BLM	Project #:	001801
Sample ID:	5 Pt. #1	Date Reported:	04-18-00
Laboratory Number:	H097	Date Sampled:	04-11-00
Chain of Custody:	7782	Date Received:	04-11-00
Sample Matrix:	TCLP Extract	Date Extracted:	04-12-00
Preservative:	Cool	Date Analyzed:	04-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **CR 5030. 5 Pt. Composite.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	BLM	Project #:	001801
Sample ID:	5 Pt. #1	Date Reported:	04-18-00
Laboratory Number:	H097	Date Sampled:	04-11-00
Chain of Custody:	7782	Date Received:	04-11-00
Sample Matrix:	TCLP Extract	Date Extracted:	04-12-00
Preservative:	Cool	Date Analyzed:	04-14-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **CR 5030. 5 Pt. Composite.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	BLM	Project #:	001801
Sample ID:	5 Pt. #1	Date Reported:	04-18-00
Laboratory Number:	H097	Date Sampled:	04-11-00
Chain of Custody:	7782	Date Received:	04-11-00
Sample Matrix:	TCLP Extract	Date Analyzed:	04-18-00
Preservative:	Cool	Date Extracted:	04-12-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.031**	**0.001**	**5.0**
Barium	**1.42**	**0.001**	**21**
Cadmium	**0.012**	**0.001**	**0.11**
Chromium	**0.008**	**0.001**	**0.60**
Lead	**0.035**	**0.001**	**0.75**
Mercury	**ND**	**0.001**	**0.025**
Selenium	**0.004**	**0.001**	**5.7**
Silver	**0.001**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **CR 5030. 5 Pt. Composite.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-17-00
Laboratory Number:	04-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples H096 - H098.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-17-00
Laboratory Number:	04-12-TCV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-14-00
Condition:	N/A	Date Extracted:	04-12-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-17-00
Laboratory Number:	H096	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-14-00
Condition:	N/A	Date Extracted:	04-12-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0162	0.0161	0.0001	0.7%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.135	0.135	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-17-00
Laboratory Number:	H096	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-14-00
Condition:	N/A	Date Extracted:	04-12-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0162	0.050	0.0657	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.135	0.050	0.1846	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-18-00
Laboratory Number:	04-14-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-14-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

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

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

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

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

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-18-00
Laboratory Number:	04-12-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	04-12-00
Condition:	Cool & Intact	Date Analyzed:	04-14-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-18-00
Laboratory Number:	H096	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	04-14-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	**ND**	**ND**	**0.020**	**0.0%**
p,m-Cresol	**ND**	**ND**	**0.040**	**0.0%**
2,4,6-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
2,4,5-Trichlorophenol	**ND**	**ND**	**0.020**	**0.0%**
Pentachlorophenol	**ND**	**ND**	**0.020**	**0.0%**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	**30.0%**

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

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

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

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

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-18-00
Laboratory Number:	04-14-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-14-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples H096 - H098.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-18-00
Laboratory Number:	04-12-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	04-12-00
Condition:	Cool and Intact	Date Analyzed:	04-14-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples H096 - H098.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-18-00
Laboratory Number:	H096	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Extracted:	04-12-00
Condition:	N/A	Date Analyzed:	04-14-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples H096 - H098.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-18-TCM QA/QC	Date Reported:	04-18-00
Laboratory Number:	H096	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-18-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.022	0.022	0.0%	0% - 30%
Barium	ND	ND	0.001	2.87	2.86	0.3%	0% - 30%
Cadmium	ND	ND	0.001	0.006	0.006	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%
Lead	ND	ND	0.001	0.027	0.026	3.7%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.006	0.006	0.0%	0% - 30%
Silver	ND	ND	0.001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.022	0.521	99.8%	80% - 120%
Barium	0.500	2.87	3.35	99.4%	80% - 120%
Cadmium	0.500	0.006	0.505	99.8%	80% - 120%
Chromium	0.500	0.001	0.500	99.8%	80% - 120%
Lead	0.500	0.027	0.528	100.2%	80% - 120%
Mercury	0.050	ND	0.048	96.0%	80% - 120%
Selenium	0.500	0.006	0.505	99.8%	80% - 120%
Silver	0.500	ND	0.499	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples H096 - H098.**

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CHAIN OF CUSTODY RECORD

7782

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLM	CR 5030	
Sampler: REP	Client No. 001801	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	NP						Remarks
5PT. #1	4.11.00	1430	H697	SOIL	1	✓						
												5PT. COMPOSITE
												SAMPLE PRESERVE -
												COOL

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	4.11.00	1450	Christa Waters	4.11.00	14:50
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: _____

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Schlumberger Production Operations
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site PDF YARD
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter TBA.
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4000 Lomas St Farmington, NM 87401

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Used motor oil contaminated soil.
TCLP metals analysis attached.
MSDS ATTACHED.

Estimated Volume 10 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 5.15.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 5/17/00

APPROVED BY: Martyn J Mathy TITLE: Environmental Geologist DATE: 5-16-00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Schlumberger Production Operator's, Inc 4000 Lomas Street Farmington, NM 87401	Envirotech Soil Remediation Facility Landfarm # 2 Hwy 550 (formerly Hwy 44) Hilltop, NM

3. Originating Site (Name):
Production Operator's Yard 4000 Lomas Street Farmington, NM
4. Source and Description of Waste:
Used motor oil. Material was upset from compressors during normal operations and maintenance.

I, Charley Weahkee representative for:
(Print Name)
Schlumberger, Production Operator's, Inc. do hereby certify that according to the Resource Conservation Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

_____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification and That nothing has been added to the exempt Non-hazardous waste defined above.

For **EXEMPT** waste only, the following documentation is attached (check appropriate items)	For **NON-EXEMPT** waste only, the following documentation is attached (check appropriate items)
_____ NORM Survey _____ TCLP Analysis	__X__ MSDS Information __X__ TCLP Analysis __X__ Chain of Custody __X__ NORM Survey _____ Other (description)

Name (Original Signature): Charley J. Weahkee
Title: QHSE Coordinator POI
Date: 5/15/00

Inter-Mountain Laboratories, Inc.
Phone (505) 326-4737 Fax (505) 325-4182
2506 West Main Street, Farmington, NM 87401

Client: Production Operators, Inc.
Project: POI YARD
Sample ID: Sample #1/2 Comp.
Lab ID: 0300S01962
Matrix: Soil
Condition: Cool/Intact

Date Reported: 05/12/00
Date Sampled: 05/11/00
Date Received: 05/11/00
Date Analyzed: 05/11/00

Parameter	Analytical Result	PQL	MCL	Units
RCRA Metals				
Arsenic	<6	6	100	mg/Kg
Barium	474	1	2000	mg/Kg
Cadmium	<0.5	0.5	20	mg/Kg
Chromium	7	1	100	mg/Kg
Lead	9	5	100	mg/Kg
Mercury	<0.1	0.1	4	mg/Kg
Selenium	<4	4	20	mg/Kg
Silver	<2	2	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By: _____
William Lipps

Total Metals Method 3050

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:06/30/92

********** I. PRODUCT IDENTIFICATION **********

MOBIL PEGASUS 485

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
NATURAL GAS ENGINE OIL

24-HOUR EMERGENCY (CALL COLLECT):
(609) 737-4411

CHEMTREC:
(800) 424-9300

PRODUCT AND MSDS INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: Dark Amber Liquid ODOR: Mild PH: NA
VISCOSITY AT 100 F, SUS: 649.0 AT 40 C, CS: 124.0
VISCOSITY AT 210 F, SUS: 72.0 AT 100 C, CS: 13.0
FLASH POINT F(C): > 450(232) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): 5(-15)
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.88 SOLUBILITY IN WATER: Negligible
VAPOR PRESSURE-mm Hg 20C: < .1

NA=Not Applicable NE=Not Established D=Decomposes

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

None

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A*=Suggested-TLV, M=Mobil, O=OSHA, S=Supplier
NOTE: Limits shown for guidance only. Follow applicable regulations.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

THRESHOLD LIMIT VALUE: 5.00 mg/m3 Suggested for Oil Mist
EFFECTS OF OVEREXPOSURE: Not expected to be a problem.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: Flush thoroughly with water. If irritation persists, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 450(232) (ASTM D-92)
FLAMMABLE LIMITS. LEL: .6% UEL: 7.0%
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None.
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

********** VII. REACTIVITY DATA **********

STABILITY (Thermal, Light, etc.): Stable
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (Materials to Avoid): Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur.

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.
WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

********** X. SPECIAL PRECAUTIONS **********

No special precautions required.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Slightly toxic ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Slightly toxic ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of similar oils showed no evidence of carcinogenic effects.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: All components registered in accordance with TSCA.

DOT:

Shipping Name: Not applicable
Hazard Class: Not applicable

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 - FORMERLY 302) REPORTABLE HAZARD CATEGORIES: None

This product contains no chemicals reportable under
SARA (313) toxic release program.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

82

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS) (.03%)	7440-66-6	15
PHOSPHORODITHOIC ACID, O,O-DI C1-14-ALKYL ESTERS, ZINC SALTS (2:1) (ZDDP) (.24%)	68649-42-3	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK, 11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293, 16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS **********

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS THE FOLLOWING BASE OILS:	> 95.00	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC		64742-65-0
AMINES, POLYETHYLENEPOLY-, REACTION PRODUCTS WITH SUCCINIC ANHYDRIDE POLYBUTENYL DERIVS.	< 2.00	68439-80-5
SULFONIC ACIDS, PETROLEUM, CALCIUM SALTS	< 2.00	61789-86-4
ZINC DITHIOPHOSPHATE	0.26 NJT	800967-5469P

********** APPENDIX **********

FOR MOBIL USE ONLY: MHC: 1* 1* NA 0* 0*, MPPEC: A, PPEC: A, US92-465
APPROVE CCODE:10 06/30/92 REQ: US - MARKETING

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

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MAY 05 2000
Environmental Bureau
Oil Conservation Division

Env. JN: 95026

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator BJ Services
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site MP. 28.75 Hwy 511
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	SESE Sec 22, T32N R8W SJ. County NM.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of motor oil, Anti Freeze, hydraulic oil @ a four vehicle accident on NM Hwy 511

TCLP Metals attached

MAY 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 8 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: Landfarm Manager DATE: 05.03.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: _____ TITLE: Geologist DATE: 5/4/00

APPROVED BY: _____ TITLE: Environmental Geologist DATE: 5/5/00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
BJ. Services 3250 Southside River Road Farmington, NM 87401	Envirotech Inc. Landfarm #2 Hill Top, N.M. 14 mile S. of Bloomfield.
3. Originating Site (name): M.P. 28.75 NM Hwy 511 Truck accident Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): SESE, Sec 22, T.32N R8W S.J.C. NM.
4. Source and Description of Waste Soil contaminated with motor oil, Hydraulic fluid & Anti freeze @ a 4 vehicle Truck accident.	

I, Les Baugh (Print Name) representative for:

BJ Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

___ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Les Baugh

Title: Facility Supervisor

Date: 5/3/00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	B J Services	Project #:	502604
Sample ID:	Absorbent Composite	Date Reported:	04-21-00
Laboratory Number:	H124	Date Sampled:	04-19-00
Chain of Custody:	7630	Date Received:	04-19-00
Sample Matrix:	TCLP Extract	Date Analyzed:	04-21-00
Preservative:	Cool	Date Extracted:	04-20-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.094**	**0.001**	**5.0**
Barium	**1.02**	**0.001**	**21**
Cadmium	**0.049**	**0.001**	**0.11**
Chromium	**0.031**	**0.001**	**0.60**
Lead	**0.033**	**0.001**	**0.75**
Mercury	**0.002**	**0.001**	**0.025**
Selenium	**0.062**	**0.001**	**5.7**
Silver	**0.009**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Mile Marker 26.75 Hiway 511 N.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-21-TCM QA/QC	Date Reported:	04-21-00
Laboratory Number:	H112	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-21-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	**ND**	**ND**	**0.001**	**0.109**	**0.107**	**1.8%**	**0% - 30%**
Barium	**ND**	**ND**	**0.001**	**6.07**	**6.05**	**0.3%**	**0% - 30%**
Cadmium	**ND**	**ND**	**0.001**	**0.051**	**0.050**	**2.0%**	**0% - 30%**
Chromium	**ND**	**ND**	**0.001**	**0.560**	**0.559**	**0.2%**	**0% - 30%**
Lead	**ND**	**ND**	**0.001**	**0.601**	**0.603**	**0.3%**	**0% - 30%**
Mercury	**ND**	**ND**	**0.001**	**0.004**	**0.004**	**0.0%**	**0% - 30%**
Selenium	**ND**	**ND**	**0.001**	**0.037**	**0.035**	**5.4%**	**0% - 30%**
Silver	**ND**	**ND**	**0.001**	**0.048**	**0.047**	**2.1%**	**0% - 30%**

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	**0.500**	**0.109**	**0.608**	**99.8%**	**80% - 120%**
Barium	**0.500**	**6.07**	**6.55**	**99.7%**	**80% - 120%**
Cadmium	**0.500**	**0.051**	**0.550**	**99.8%**	**80% - 120%**
Chromium	**0.500**	**0.560**	**1.58**	**149.1%**	**80% - 120%**
Lead	**0.500**	**0.601**	**1.10**	**99.9%**	**80% - 120%**
Mercury	**0.050**	**0.004**	**0.054**	**100.0%**	**80% - 120%**
Selenium	**0.500**	**0.037**	**0.536**	**99.8%**	**80% - 120%**
Silver	**0.500**	**0.048**	**0.546**	**99.6%**	**80% - 120%**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples H112 and H124 - H125.**

Analyst

Review

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

CHAIN OF CUSTODY RECORD

7630

Client / Project Name	Project Location
BJ Services	Hiway 511 N, mile marker 26.75
Sampler: Kelly Johnson	**Client No.** 502604

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP Metals					Remarks
Absorbant Composite	4/19/00	11:00Am	H124	Soil ~~TCLP Metals~~	1	✓					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Kelly Johnson	4/19/00	3:00pm	[signature]	4/19/00	15:00
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

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

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

District I - (505) 393-6161
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811 S. First
Artesia, NM 88210
District III - (505) 334-6178
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District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

2040 South Pacheco Street
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Oil Conservation Division

Env. JN: 95026

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Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator B.J. Services
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	3250 Southside River Road

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Construction of Washbay Solids.
TCLP
&
Reconfirmation Sampling Attached

MAY 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 40 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 5-3-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 5/4/00

APPROVED BY: Martyn J. Kieling TITLE: Environmental Geologist DATE: 5/5/00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
BJ Services 3250 Southside River Road Farmington, New Mexico 87401	EnviroTech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): BJ Services, Main Yard 3250 Southside River Road Farmington, N.M. 87401 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Same - Wash Bay Solids Facility
4. Source and Description of Waste Continuation of Wash Bay Solids.	

I, Les Baugh (Print Name) representative for:

BJ Services do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

___ MSDS Information
X RCRA Hazardous Waste Analysis
X Chain of Custody
X Other (description): Reaffirmation Statement

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): Les Baugh

Title: Facilities Supervisor

Date: 5/3/00

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE

I hereby certify that the attached Request For Approval and Certificate of Waste Status are for materials generated using the same procedures and equipment employed to generate the waste on which Toxicity Characteristic Leaching Procedures (TCLP) analysis was performed. I further certify that said material is from operations in the immediate Four Corners area.

Date of TCLP 2/17/00

Printed Name Les Baugh

Title / Agency Facilities Supervisor

Address 3250 Southside River Road
Farmington, New Mexico

Signature Les Baugh

Date 5/3/00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

February 17, 2000

Mr. Les Baugh
BJ Services
3250 E. Southside River Rd.
Farmington, NM 87401

Phone: (505) 327-6222

Client No.: 95026-01
Job No.: 502601

Dear Mr. Baugh,

Enclosed are the analytical results for the sample collected from the location designated as "3250 Southside River Rd., Farmington, NM". One sludge sample was collected by Envirotech personnel on 2/10/00, and received by the Envirotech laboratory on 2/10/00 for TCLP W/O Herbicides and Pesticides.

The sample was documented on Envirotech Chain of Custody No. 7672 and assigned Laboratory No. G810 (Wash Bay Sludge) for tracking purposes.

The sample was analyzed 2/10/00 through 2/16/00 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/BJ.wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	B J Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-10-00
Lab ID#:	G810	Date Sampled:	02-10-00
Sample Matrix:	Sludge	Date Received:	02-10-00
Preservative:	Cool	Date Analyzed:	02-10-00
Condition:	Cool and Intact	Chain of Custody:	7672

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.80**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-14-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**0.0129**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**0.0038**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**98%**
	Bromofluorobenzene	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Extracted:	02-11-00
Preservative:	Cool	Date Analyzed:	02-15-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	BJ Services	Project #:	502601
Sample ID:	Wash Bay Sludge	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	02-10-00
Chain of Custody:	7672	Date Received:	02-10-00
Sample Matrix:	TCLP Extract	Date Analyzed:	02-16-00
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.067**	**0.001**	**5.0**
Barium	**0.585**	**0.001**	**21**
Cadmium	**0.035**	**0.001**	**0.11**
Chromium	**0.022**	**0.001**	**0.60**
Lead	**0.031**	**0.001**	**0.75**
Mercury	**ND**	**0.001**	**0.025**
Selenium	**0.037**	**0.001**	**5.7**
Silver	**0.016**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **3250 Southside River Rd., Farmington, NM.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-14-TCV	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**100%**
	Bromofluorobenzene	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCV	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	**ND**	**0.0001**	**0.2**
1,1-Dichloroethene	**ND**	**0.0001**	**0.7**
2-Butanone (MEK)	**ND**	**0.0001**	**200**
Chloroform	**ND**	**0.0001**	**6.0**
Carbon Tetrachloride	**ND**	**0.0001**	**0.5**
Benzene	**ND**	**0.0001**	**0.5**
1,2-Dichloroethane	**ND**	**0.0001**	**0.5**
Trichloroethene	**ND**	**0.0003**	**0.5**
Tetrachloroethene	**ND**	**0.0005**	**0.7**
Chlorobenzene	**ND**	**0.0003**	**100**
1,4-Dichlorobenzene	**ND**	**0.0002**	**7.5**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	**99%**
	Bromofluorobenzene	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0129	0.0129	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0038	0.0038	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-14-00
Condition:	N/A	Date Extracted:	02-11-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0129	0.050	0.0624	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0038	0.050	0.0536	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-15-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	**98 %**
	2,4,6-tribromophenol	**99 %**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TCA	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	**ND**	**0.020**	**200**
p,m-Cresol	**ND**	**0.040**	**200**
2,4,6-Trichlorophenol	**ND**	**0.020**	**2.0**
2,4,5-Trichlorophenol	**ND**	**0.020**	**400**
Pentachlorophenol	**ND**	**0.020**	**100**

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	**98%**
	2,4,6-Tribromophenol	**99%**

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool & Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

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

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

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

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	02-16-00
Laboratory Number:	02-15-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**97%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	02-16-00
Laboratory Number:	02-11-TBN	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-11-00
Condition:	Cool and Intact	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-11-00
Condition:	N/A	Date Analyzed:	02-15-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	02-16-TCM QA/QC	Date Reported:	02-16-00
Laboratory Number:	G810	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	02-16-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.067	0.066	1.5%	0% - 30%
Barium	ND	ND	0.001	0.585	0.582	0.5%	0% - 30%
Cadmium	ND	ND	0.001	0.035	0.035	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.022	0.022	0.0%	0% - 30%
Lead	ND	ND	0.001	0.031	0.031	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	0.037	0.036	2.7%	0% - 30%
Silver	ND	ND	0.001	0.016	0.016	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.067	0.566	99.8%	80% - 120%
Barium	0.500	0.585	1.08	99.8%	80% - 120%
Cadmium	0.500	0.035	0.534	99.8%	80% - 120%
Chromium	0.500	0.022	0.521	99.8%	80% - 120%
Lead	0.500	0.031	0.530	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	0.037	0.535	99.6%	80% - 120%
Silver	0.500	0.016	0.515	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples G810 - G811 and G836.**

Analyst

Review

CHAIN OF CUSTODY RECORD

7672

t / Project Name			Project Location	
J Services			3250 Southside River Rd Farmington, NM.	
pler: Harlan M. Brown			Client No. 95026 -01	

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP % H & P					Remarks
...sh Bay Sludge	2.10.00	8:55	6810	Sludge	1	✓					

quished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	2.10.00	10:03	[signature]	2/10/00	10:03
quished by: (Signature)			Received by: (Signature)		
quished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 92132

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton Energy Services
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site SW FC 33-11 well #1-3
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Ireland
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State Colorado → NM
7. Location of Material (Street Address or ULSTR)	Sec 1, T 33N, R 11 W La Plata Cnty, Co

9. Circle One:

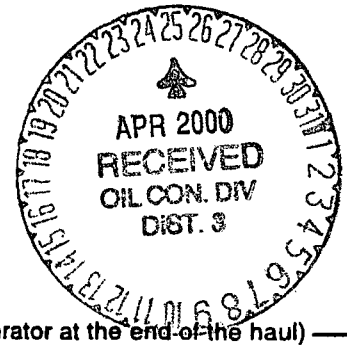
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of LGC VIII Stimulation Fluid released on location



Estimated Volume 500 gal cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown Waste Management Facility Authorized Agent TITLE: Landfarm Manager DATE: 4-25-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 4/25/00

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 4/27/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: Halliburton Energy Services 4109 E. Main St. Farmington, N.M. 87401	2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): 33-11 Southern Ute FC Well #1-3 Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR): Sec 1, T33N, R11W La Plata County, Co (Southern Ute).
4. Source and Description of Waste: Line Break on location; cleanup of stimulation Fluid (0.35% LGC VIII)	

I, ROBERT SMITH (Print Name) representative for: HALLIBURTON ENERGY SERVICE do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

X MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): ROBERT SMITH

Title: HSE ADVISOR

Date: 03-10-2000

SOUTHERN UTE INDIAN TRIBE

April 19, 2000

Robert Smith
Health, Safety and Environmental Advisor
Halliburton Energy Services
4109 East Main Street
P.O. Box 960
Farmington, NM 87499-0960

Re: Tribal Notification of Transportation of Non-exempt Oil Field Waste
500 gallons of non-exempt, stimulation fluid containing LGC-VIII contaminated soil
Halliburton Energy Services, SU FC 33-11 well # 1-3 NESW Sec. 1 T33N R11W

Dear Mr. Smith:

Thank you for notifying the Environmental Programs Division of the Southern Ute Indian Tribe of the transport of soil contaminated with 500 gallons of RCRA non-exempt stimulation fluid containing LGC-VIII from the above referenced site to a land farm in New Mexico. It is our understanding that the contaminated soil will be transported to Envirotech's landfarm in New Mexico.

Certification may be required by the state in New Mexico Oil Conservation Commission (NMOCCD) from your company, the transporter or generator. Transportation of this waste may be subject to other state and federal laws.

Sincerely,

Fran King Brown
NMB-acting

Fran King Brown
Division Head
Environmental Programs

SAM 632-1865

Jerry Dmoran 320-6495

FRACTURING CALL SHEET

HALLIBURTON

Date: 1/27/00
Land/Water: LAND

Quote Number: _____ Sales Order: _____ K.B. Number: _____
Company: RED WILLOW Lease: SOUTHERN UTE FC 33-11 Well Number: #1-3
Company Rep.: BOB SAGEL Mobil: 970-749-0473 Pager: _____ Office: _____
Contractor: KEY Unit Number: 6 Unit Type: _____
Town: _____ County: LA PLATA State: COLORADO
Round Trip Mileage: _____ API Number: _____ H2S Present? _____ % CO2 Present? _____ %

Directions

HWY 550 NORTH TO CEDAR HILL T.L. STAY ON MAIN ROAD TO UTE RESERVATION AND FOLLOW RIG SIGNS TO LOCATION.

Well Related Information

Legal Description: 1-33N-11W Reservoir Properties: _____ Current Production: _____
Formation Name: FRUITLAND COAL Packer Depth: _____

	New/Used	Weight	Connection	Grade	Size	From MD	To MD	From TVD	To TVD	Max PSI	Comments
Casing	U	17.00			5.500	0	TD			4,250	
Liner											
Tbg./DP.											Shots / Ft.
Perforations					0.450	3,344	3,421				232 HOLES
Perforations											
Perforations											

Notes: _____

Well Fluids

Fluid Types	EA	Total Volume	Water	Acid	Chemicals
		Tanks W/			
		Tanks W/			
		Tanks W/			
		Tanks W/			

Deviation: _____ TVD: _____
BHP: _____ Static Temp.: 125
BPM: 60 PSI: 2,773 Max PSI 4,250
Fluid BPM: _____ N2 scfm _____ N2 % _____
N2 VOL _____

Frac Information

Job Purpose: 1ST STAGE--DELTA SANDWEDGE

Gel System		Vol		Gallons		Acid System	10%FORMIC	Vol	1,000	Gallons	
Treatment		Density		Lb/Gal		Treatment		Density		Lb/Gal	
Prop. Type	BRADY	Size	20/40	Lbs	251,000	Prop. Type		Size		Lbs	
Prop. Type		Size		Lbs		Prop. Type		Size		Lbs	
Surfactant		Gal/Lb			/1000	Surfactant		Gal/Lb			/1000
Foamer	Losurf300	Gal/Lb	85	.5-1	/1000	Surfactant	SSO-21	Gal/Lb	2	2	/1000
Fluid Loss		Gal/Lb			/1000	Fluid Loss		Gal/Lb			/1000
Gelling Agent	LGC-8	Gal/Lb	675	5-6.25	/1000	Gelling Agent		Gal/Lb			/1000
Breaker Type	GBW-30	Gal/Lb	110	.5-2	/1000	Breaker Type		Gal/Lb			/1000
Breaker Type	Opti.H.T.E	Gal/Lb	80	.5-1	/1000	Inhibitor	MSA-II	Gal/Lb	1	1	/1000
CrossLinker	BC-140	Gal/Lb	220	1.75	/1000	Iron Control		Gal/Lb			/1000
Fric.Reducer		Gal/Lb			/1000	Iron Control		Gal/Lb			/1000
Buffer Type		Gal/Lb			/1000	Buffer Type		Gal/Lb			/1000
Biocide		Gal/Lb			/1000	Buffer Type		Gal/Lb			/1000
Clay Control		Gal/Lb			/1000	Clay Control		Gal/Lb			/1000
Sandwedge	LIQ.COAT	Gal/Lb	600	.2/SK	/1000	Other		Gal/Lb			/1000

Blndr.	X	WHIT		Iron	X	Mnfld Tr.	X	Frac Van	X	H2O Mnfld	X
Pre Gel	X	Ann Pmp		Mt. Mov.	X	Size SG		Chem	X	N2 Pump	
HHP fluid	6,000	Pop Off		Ball Inj.		LGC Trk		Acid Tran	X	N2 Pump	
Hold Tnk.	X	Pop Off		Balls		QC	X	Acid V12		N2 Trans.	

Procedure and/or Third Party Equipment Requirements

_____

Call Taken By: PAT KEMPER Time: _____ Is Credit OK? _____ Checked By: _____
Discount% Mileage: _____ % Service: _____ % Tools: _____ % Agreed Price: _____
Ordered By: BOB SAGEL Operator Called: _____ Time Ready W/C
Materials From: _____ Crew From: _____
Associated PSL's: _____

DEPARTMENT OF TRANSPORTATION (DOT)

FOR PN# 516005670 HAZARD GUIDE 27 PAGE 1

HALLIBURTON SERVICES DATE: 02/11/00
DUNCAN, OKLAHOMA 73536 REVISED DATE: 08/10/95

EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359
EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359

* *

POTENTIAL HAZARDS

FIRE OR EXPLOSION

FLAMMABLE/COMBUSTIBLE MATERIAL; MAY BE IGNITED BY HEAT, SPARKS OR FLAMES.
VAPORS MAY TRAVEL TO A SOURCE OF IGNITION AND FLASH BACK.
CONTAINER MAY EXPLODE IN HEAT OF FIRE.
VAPOR EXPLOSION HAZARD INDOORS, OUTDOORS OR IN SEWERS.
RUNOFF TO SEWER MAY CREATE FIRE OR EXPLOSION HAZARD.

HEALTH HAZARDS

MAY BE POISONOUS IF INHALED OR ABSORBED THROUGH SKIN.
VAPORS MAY CAUSE DIZZINESS OR SUFFOCATION.
CONTACT MAY IRRITATE OR BURN SKIN AND EYES.
FIRE MAY PRODUCE IRRITATING OR POISONOUS GASES.
RUNOFF FROM FIRE CONTROL OR DILUTION WATER MAY CAUSE POLLUTION.

EMERGENCY ACTION

KEEP UNNECESSARY PEOPLE AWAY; ISOLATE HAZARD AREA AND DENY ENTRY.
STAY UPWIND; KEEP OUT OF LOW AREAS.
POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND STRUCTURAL FIREFIGHTERS' PROTECTIVE CLOTHING WILL PROVIDE LIMITED PROTECTION.
ISOLATE FOR 1/2 MILE IN ALL DIRECTIONS IF TANK, RAIL CAR OR TANK TRUCK IS INVOLVED IN FIRE.

FIRE

SMALL FIRES: DRY CHEMICAL, CO2, WATER SPRAY OR REGULAR FOAM.
LARGE FIRES: WATER SPARY, FOG OR REGULAR FOAM.
MOVE CONTAINER FROM FIRE AREA IF YOU CAN DO IT WITHOUT RISK.
APPLY COOLING WATER TO SIDES OF CONTAINERS THAT ARE EXPOSED TO FLAMES UNTIL WELL AFTER FIRE IS OUT. STAY AWAY FROM ENDS OF TANKS.
FOR MASSIVE FIRE IN CARGO AREA, USE UNMANNED HOSE HOLDER OR MONITOR NOZZLES; IF THIS IS IMPOSSIBLE, WITHDRAW FROM AREA AND LET FIRE BURN.
WITHDRAW IMMEDIATELY IN CASE OF RISING SOUND FROM VENTING SAFETY DEVICE OR ANY DISCOLORATION OF TANK DUE TO FIRE.

SPILL OR LEAK

SHUT OFF IGNITION SOURCES; NO FLARES, SMOKING OR FLAMES IN HAZARD AREA.
STOP LEAK IF YOU CAN DO IT WITHOUT RISK.
WATER SPRAY MAY REDUCE VAPOR; BUT IT MAY NOT PREVENT IGNITION IN CLOSED SPACES.
SMALL SPILLS: TAKE UP WITH SAND OR OTHER NONCOMBUSTIBLE ABSORBENT MATERIAL AND PLACE INTO CONTAINERS FOR LATER DISPOSAL.

LARGE SPILLS: DIKE FAR AHEAD OF LIQUID SPILL FOR LATER DISPOSAL.

FIRST AID

MOVE VICTIM TO FRESH AIR AND CALL EMERGENCY MEDICAL CARE; IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION; IF BREATHING IS DIFFICULT,

GIVE OXYGEN.

IN CASE OF CONTACT WITH MATERIAL, IMMEDIATELY FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES. WASH SKIN WITH SOAP AND WATER.

REMOVE AND ISOLATE CONTAMINATED CLOTHING AND SHOES AT THE SITE.

CALL Emergency Response Telephone Number on Shipping Paper "FIRST". If Shipping Paper "NOT AVAILABLE" OR "NO ANSWER", CALL CHEMTREC AT 1-800-424-9300

LGC-VIII CONCENTRATE - BULK PAGE 1

MATERIAL SAFETY DATA SHEET DATE: 02-11-00
HALLIBURTON ENERGY SERVICES REVISED DATE 04-07-99
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359
EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359

* * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * *

CHEMICAL CODE: LGC-VIII CONCENTRATE - BULK PART NUMBER: 516005670
PKG QTY: CARGO TANK APPLICATION: CONCENTRATE
SERVICE USED: STIMULATION

* * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * *

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
GUAR GUM	31-60 %	10 MG/M3	15 MG/M3
ETHOXYLATED NONYLPHENOL	1-10 %	NOT EST	NOT EST
DIESEL	31-60 %	NOT EST	NOT EST

* * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * *

PROPERTY	MEASUREMENT
APPEARANCE	YELLOWISH LIQUID, GEL
ODOR	DIESEL
SPECIFIC GRAVITY (H2O=1)	1.035
BULK DENSITY	8.62 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	NIL
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	100
EVAPORATION RATE(BUTYL ACETATE=1)	<1
VAPOR DENSITY	5-6
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	300 F / 148 C
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

* * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE
FLASH POINT 128 F / 53 C FLASH MTHD TCC
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D
++
EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED

CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND INJURIES.
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND NITROGEN OXIDES.

* * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN ACCORDING TO : NTP, IARC, AND OSHA

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE EYE IRRITATION.
SKIN:
FREQUENT OR PROLONGED CONTACT WILL DRY AND DEFAT THE SKIN, POSSIBLY LEADING TO IRRITATION AND DERMATITIS. REPEATED CONTACT MAY SENSITIZE THE SKIN.
INHALATION:
HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.
VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.
INGESTION:
IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA AND VOMITING, DIARRHEA, AND COLLAPSE MAY RESULT FROM INGESTION.
ASPIRATION INTO LUNGS BY INGESTION OR VOMITING, MAY CAUSE CHEMICAL PNEUMONITIS RESULTING IN EDEMA AND HEMORRAGE AND MAY BE FATAL. SYMPTOMS INCLUDE INCREASED RESPIRATORY RATE AND BLUISH DISCOLORATION OF SKIN. COUGHING AND GAGGING ARE OFTEN NOTED AT THE TIME OF ASPIRATION.
CHRONIC EFFECTS:
PROLONGED OR REPEATED APPLICATION OF A SIMILAR PRODUCT TO THE SKIN OF LAB LABORATORY MICE WITHOUT WASHING BETWEEN APPLICATIONS RESULTED IN INCREASED INCIDENCE OF SKIN TUMORS. IT IS SUSPECTED THAT TUMORS MAY BE DUE IN PART TO SEVERELY IRRITATED CONDITIONS FROM CONTINOUS CONTACT WITH THE PRODUCT.
OTHER SYMPTOMS AFFECTED:
BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS.

---------- EMERGENCY AND FIRST AID PROCEDURES ----------

EYE:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL

ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! ASPIRATION INTO LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO LUNGS.

* * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * *

STABILITY: STABLE
CONDITIONS TO AVOID:
HEAT, SPARKS AND OPEN FLAME.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE. REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.
WASTE DISPOSAL METHOD:
GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

* * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * * *

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.
IN OXYGEN DEFICIENT AREAS OR CONFINED SPACES, POSITIVE PRESSURE SUPPLIED-AIR RESPIRATOR WITH 5-MINUTE AUXILIARY BOTTLE, OR PRESSURE-DEMAND OR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.
LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR COMBUSTIBLE ATMOSPHERES (NEC CLASS II EQUIPMENT).
PROTECTIVE GLOVES:
IMPERVIOUS RUBBER GLOVES.
EYE PROTECTION:
WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

* * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * *

WARNING!
MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
COMBUSTIBLE!
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
KEEP FROM HEAT, SPARKS, AND OPEN FLAME.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

* * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * *

PN: 516005670 PAGE 4

DOT SHIPPING DESCRIPTION:
DIESEL FUEL SOLUTION - 3 - NA1993 - III

* * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): Y MIXTURE OR PURE MATERIAL: MIX

B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
N/A

C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

COMPONENT NAME	CAS-REG-NO	PCT
ETHOXYLATED NONYLPHENOL	9016-45-9	1-10 %

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACOIN N/D NPR NE DRSM NE

H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES MEET THE CRITERIA OF A HAZARDOUS WASTE AS DEFINED BY US EPA BECAUSE OF:

IGNITABILITY

* *

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY

SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

02/11/00 PAGE 01 OF 01

HALLIBURTON ENERGY SERVICES - SHIPPING PAPERS
FOR
MOVEMENT OF MATERIALS ACCORDING TO FEDERAL REGULATION
AS SPECIFIED IN CFR 49, SEC.177.817 AND 176.24

LOCATION: FARMINGTON N.M.

TRUCK# OR TRLR# :

FOR EMERGENCY CONTACT:
NAME: PAT KEMPER
TELEPHONE: (505) 324-3500

DRIVER:

U.S. DOT HAZMAT REG. NO. - 060399 011 025H

```
*HM:**********************************************************************
*   * TOT GROSS LBS        5   NUM CONTAINERS:          TYPE: CARGO TANK
*   *++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
*X *DIESEL FUEL SOLUTION - 3 - NA1993 - III
*   *
*   *
*   *
*   *HALCO NAME & NO.: LGC-VIII CONCENTRATE - BULK                516.00567
*   *       *   GROSS LBS/PKG: _________      ERG => 27
**********************************************************************
**********************************************************************
```

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.

SIGNATURE _____

SAM 632-1805

Jerry Dmoran 320-6495

HALLIBURTON

FRACTURING CALL SHEET

Date: 1/27/00
Land/Water: LAND

Quote Number: _____ Sales Order: _____ K.B. Number: _____
Company: RED WILLOW Lease: SOUTHERN UTE FC 33-11 Well Number: #1-3
Company Rep.: BOB SAGEL Mobil: 970-749-0473 Pager: _____ Office: _____
Contractor: KEY Unit Number: 6 Unit Type: _____
Town: _____ County: LA PLATA State: COLORADO
Round Trip Mileage: _____ API Number: _____ H2S Present? _____ % CO2 Present? _____ %

Directions

HWY 550 NORTH TO CEDAR HILL T.L. STAY ON MAIN ROAD TO UTE RESERVATION AND FOLLOW RIG SIGNS TO LOCATION.

Well Related Information

Legal Description: 1-33N-11W Reservoir Properties: _____ Current Production: _____
Formation Name: FRUITLAND COAL Packer Depth: _____

	New/Used	Weight	Connection	Grade	Size	From MD	To MD	From TVD	To TVD	Max PSI	Comments
Casing	U	17.00			5.500	0	TD			4,250	
Liner											
Tbg./DP.											Shots / Ft.
Perforations					0.450	3,344	3,421				232 HOLES
Perforations											
Perforations											

Notes: _____

Well Fluids

Fluid Types	EA	Total Volume
	Tanks/W	
	Tanks W/	
	Tanks W/	
	Tanks W/	

Water: _____ Acid: _____ Chemicals: _____

Deviation: _____ TVD: _____
BHP: _____ Static Temp.: 125
BPM: 60 PSI: 2,773 Max PSI 4,250
Fluid BPM: ___ N2 scfm ___ N2 % ___
N2 VOL

Frac Information

Job Purpose: 1ST STAGE—DELTA SANDWEDGE

Gel System		Vol		Gallons		Acid System	10%FORMIC	Vol	1,000	Gallons	
Treatment		Density		Lb/Gal		Treatment		Density		Lb/Gal	
Prop. Type	BRADY	Size	20/40	Lbs	251,000	Prop. Type		Size		Lbs	
Prop. Type		Size		Lbs		Prop. Type		Size		Lbs	
Surfactant		Gal/Lb			/1000	Surfactant		Gal/Lb			/1000
Foamer	Losurf300	Gal/Lb	85	.5-1	/1000	Surfactant	SSO-21	Gal/Lb	2	2	/1000
Fluid Loss		Gal/Lb			/1000	Fluid Loss		Gal/Lb			/1000
Gelling Agent	LGC-8	Gal/Lb	675	5-6.25	/1000	Gelling Agent		Gal/Lb			/1000
Breaker Type	GBW-30	Gal/Lb	110	.5-2	/1000	Breaker Type		Gal/Lb			/1000
Breaker Type	Opti.H.T.E	Gal/Lb	80	.5-1	/1000	Inhibitor	MSA-II	Gal/Lb	1	1	/1000
CrossLinker	BC-140	Gal/Lb	220	1.75	/1000	Iron Control		Gal/Lb			/1000
Fric.Reducer		Gal/Lb			/1000	Iron Control		Gal/Lb			/1000
Buffer Type		Gal/Lb			/1000	Buffer Type		Gal/Lb			/1000
Biocide		Gal/Lb			/1000	Buffer Type		Gal/Lb			/1000
Clay Control		Gal/Lb			/1000	Clay Control		Gal/Lb			/1000
Sandwedge	LIQ.COAT	Gal/Lb	600	.2/SK	/1000	Other		Gal/Lb			/1000

Blndr.	X	WHIT		Iron	X	Mnfld Tr.	X	Frac Van	X	H2O Mnfld	X
Pre Gel	X	Ann Pmp		Mt. Mov.	X	Size SG		Chem	X	N2 Pump	
HHP fluid	6,000	Pop Off		Ball Inj.		LGC Trk		Acid Tran	X	N2 Pump	
Hold Trk.	X	Pop Off		Balls		QC	X	Acid V12		N2 Trans.	

Procedure and/or Third Party Equipment Requirements

_____

Call Taken By: PAT KEMPER Time: _____ Is Credit OK? _____ Checked By: _____
Discount% Mileage: ____ % Service: ____ % Tools: ____ % Agreed Price: _____
Ordered By: BOB SAGEL Operator Called: _____ Time Ready W/C
Materials From: _____ Crew From: _____
Associated PSL's: _____

...ict II - (505) 748-1283
...S. First
...ia, NM 88210
...ict III - (505) 334-6178
Rio Brazos Road
...NM 87410
...ict IV - (505) 827-7131

Energy Minerals and Natural Resources Department

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Submit Original Plus 1 Copy to appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00025

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generato Compressor System Inc.
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Nebu 416
2. Management Facility Destination Tierra Land Farm	6. Transporter Lucero Const.
3. Address of Facility Operator #420 CR. 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Nebu 416	Sec. 29 T31N R. 7W

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B.) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil From New Compressor Oil

APR 2000 RECEIVED OIL CON. DIV DIST. 3

Estimated Volume 13 cy Known Volume (to be entered by the operator at the end of the haul) 13 cy

SIGNATURE: David Bonaventz TITLE: Land Farm Manager DATE: 4-24-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: David Bonaventz TELEPHONE NO. 334-8894

(This space for State Use)

APPROVED BY: Denny Foust TITLE: Geologist DATE: 4/25/00

APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 4-/27/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY F. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
COMPRESSOR SYSTEMS INC P.O BOX 2144 FARMINGTON NM 87499	Tierra Environmental
3. Originating Site (name):	**Location of the Waste (Street address &/or ULSTR):**
NEBU 416 CSI # 410137 Attach list of originating sites as appropriate	Sec. 29 T. 31N R. 7W
4. Source and Description of Waste	
ENGINE OIL WHICH LEAKED OUT OF A BROKEN HOSE FROM DAY TANK. WIND BLEW OIL AWAY FROM CONTAINMENT AND GOT ON GROUND.	

I, DANIEL RAEL (Print Name) representative for: COMPRESSOR SYSTEMS INC do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

✓ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

✓ MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): [signature]

Title: MAINT. SUPERINTENDENT

Date: 4/19/2000

Material Safety Data Sheet

I. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON Gas Engine Oil HDAX Low Ash SAE 40

PRODUCT NUMBER(S): [illegible]

COMPANY IDENTIFICATION

Chevron USA Products Company
Environmental, Safety, and Health
Room 2900
575 Market St.
San Francisco, CA 94105-2856

EMERGENCY TELEPHONE NUMBERS

HEALTH [illegible]
510)231-0[illegible] International
TRANSPORTATION [illegible]
200)424-[illegible]

PRODUCT INFORMATION: MSDS Requests: (800) 228-3537
Environmental, Safety, & Health [illegible]
Product Information: (800) 582-3838

II. COMPOSITION/INFORMATION ON INGREDIENTS

[illegible] CHEVRON Gas Engine Oil HDAX Low Ash SAE 4

CONTAINING

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
HYDROTREATED DIST., HVY PARA			
Chemical Name: DISTILLATES, HYDROTREATED HEAVY PARAFFINIC			
CAS64742547	90.0%	5 mg/m3 (mist)	ACGIH TWA
		10 mg/m3 (mist)	ACGIH STEL
		5 mg/m3 (mist)	OSHA PEL
ADDITIVES INCLUDING THE FOLLOWING	10.0%		
ZINC ALKARYL DITHIOPHOSPHATE			
Chemical Name: ZINC ALKARYL DITHIOPHOSPHATE			
CAS54261675	< 1.5%		

Revision Number: 5 **Revision Date: 01/11/95** **MSDS Number: 004210**
NDA - No Data Available **NA - Not Applicable**

Prepared according to the OSHA Hazard Communication Standard
(29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Toxicology
and Health Risk Assessment Unit, CRTC, P.O. Box 4054, Richmond, CA 94804

COMPOSITION COMMENT:

... the components of this material are on the Toxic Substances Contro... Chemical Substances Inventory.

... to ACGIH definition for mineral oil mist. The ACGIH ... OSHA PEL ... mg/m3.

	Greenbook Limit Value	TWA	Time Weighted Average
STEL	Short Term Exposure Limit	TPQ	Threshold Planning Quantity
RQ	Reportable Quantity	PEL	Permissible Exposure Limit
C	Ceiling Limit	CAS	Chemical Abstract Service Number
A1	Appendix A Categories		Change has been Proposed

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYE:
This substance is not expected to cause prolonged or significant ... irritation.

SKIN:
This substance is not expected to cause prolonged or significant ... irritation. The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin.

INGESTION:
The systemic toxicity of this substance has not been determined. However it should be practically non-toxic to internal organs if swallowed.

INHALATION:
The systemic toxicity of this substance has not been determined. However it should be practically non-toxic to internal organs if inhaled. Prolonged or repeated breathing of petroleum oil mist can cause respiratory irritation.

SIGNS AND SYMPTOMS OF EXPOSURE:
INHALATION: Respiratory tract irritation may include, but may not be limited to, one or more of the following: nasal discharge, sore throat, coughing, bronchitis, pulmonary edema and difficulty in breathing.

4. FIRST AID MEASURES

EYE:
No first aid procedures are required. However, as a precaution flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.

SKIN:
No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

INGESTION:
If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical

advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

INHALATION:

If respiratory discomfort or irritation occurs, move the person to fresh [illegible] See a doctor if discomfort or irritation continues.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: (COC) 4[illegible]

AUTOIGNITION: NDA

FLAMMABILITY LIMITS [illegible]

EXTINGUISHING MEDIA:

CO2, Dry Chemical, Foam, Water Fog

NFPA RATINGS: Health 1; Flammability [illegible]; Reactivity [illegible]

FIRE FIGHTING INSTRUCTIONS:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and phosphorous.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 hr): (800)424-9300 or (202)483-7616

ACCIDENTAL RELEASE MEASURES:

Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

HANDLING AND STORAGE:

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or drum may rupture with explosive force. Keep out of reach of children.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION:

No special eye protection is usually necessary.

SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standards, the use of an approved respirator is required.

ENGINEERING CONTROLS:

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:
Dark amber liquid.

pH:	NDA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR=1):	NA
BOILING POINT:	NA
FREEZING POINT:	NDA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.88 @ 15.6/15.6C
EVAPORATION RATE:	NA
VISCOSITY:	11.0 cSt @ 100C (Min.)
PERCENT VOLATILE (VOL):	NA

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:
NDA

CHEMICAL STABILITY:
Stable.

CONDITIONS TO AVOID:
No data available.

INCOMPATIBILITY WITH OTHER MATERIALS:
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS POLYMERIZATION:
Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
No product toxicology data available. The hazard evaluation was based on data on the components.
SKIN EFFECTS:
No product toxicology data available. The hazard evaluation was based on data on the components.
ACUTE ORAL EFFECTS:
No product toxicology data available. The hazard evaluation was based on data on the components.
ACUTE INHALATION EFFECTS:
No product toxicology data available. The hazard evaluation was based on data on the components.
ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by solvent processes including severe solvent extraction, severe hydrocracking or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

This product contains zinc alkaryl dithiophosphate which is similar in toxicity to zinc alkyl dithiophosphate (ZDDP). Several (ZDDPs) have been reported to have weak mutagenic activity in cultured mammalian cells but only at concentrations that were toxic to the test cells. We do not believe that there is any mutagenic risk to workers exposed to ZDDPs.

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water. See Chevron Material Safety Data Sheet No. 1793 for additional information on used motor oil.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
No data available.
ENVIRONMENTAL FATE:
This material is not expected to present any environmental problems other than those associated with oil spills.

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS:
Oil collection services and collection centers are available for used

motor oil recycling or disposal. Some service stations, automotive service centers, and retailers provide motor oil collection facilities.

Use contaminated materials or containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or waste authority for approved disposal or recycling methods.

14. TRANSPORT INFORMATION

The description shown may not apply to Shipments [illegible] Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity specific shipping requirements.

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT
DOT HAZARD CLASS: NOT APPLICABLE
DOT IDENTIFICATION NUMBER: NOT APPLICABLE
DOT PACKING GROUP: NOT APPLICABLE

15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

1.	Immediate (Acute) Health Effects:	NO
2.	Delayed (Chronic) Health Effects:	NO
3.	Fire Hazard:	NO
4.	Sudden Release of Pressure Hazard:	NO
5.	Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	22=TSCA Sect 5(a)(2)
02=MASS RTK	12=CERCLA 302.4	23=TSCA Sect 6
03=NTP Carcinogen	13=MN RTK	24=TSCA Sect 12(b)
04=CA Prop 65-Carcin	14=ACGIH TWA	25=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	26=TSCA Sect 8(d)
06=IARC Group 1	16=ACGIH Calc TLV	27=TSCA Sect 4(a)
07=IARC Group 2A	17=OSHA PEL	28=Canadian WHMIS
08=IARC Group 2B	18=DOT Marine Pollutant	29=OSHA CEILING
09=SARA 302/304	19=Chevron TWA	30=Chevron STEL
10=PA RTK	20=EPA Carcinogen	

The following components of this material are found on the regulatory lists indicated.

ZINC ALKARYL DITHIOPHOSPHATE
is found on lists: 01,11,
DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
is found on lists: 14,15,17,

16. OTHER INFORMATION

NFPA RATINGS: Health [illegible]; Flammability 1; Reactivity 0;
(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:
Changes have been made throughout this Material Safety Data Sheet. Please read the entire document.

****

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

bs, NM 88241-1980
rict II - (505) 748-1283
S. First
sia, NM 88210
rict III - (505) 334-6178
1 Rio Brazos Road
c, NM 87410
rict IV - (505) 827-7131

Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Originated 3/8/01

Submit Original Plus 1 Copy to appropriate District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00030

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Sims Mesa Facility
2. Management Facility Destination Tierra land Farm	6. Transporter Key Energy
3. Address of Facility Operator FM 420 CR 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Key's Sims Mesa Facility	3646.35N 107 28.09W

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil From Diesel Fuel Tank spill

APR 2000 RECEIVED OIL CON. DIV DIST. 3

Estimated Volume 1/4 cy Known Volume (to be entered by the operator at the end of the haul) 1/4 cy

SIGNATURE: David Bonavitz TITLE: Land Farm Manager DATE: 4-17-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: David Bonavitz TELEPHONE NO. 334-8894

(This space for State Use)

APPROVED BY: Jerry G. Hunt TITLE: Geologist DATE: 4/25/00

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 4/27/00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name):	**Location of the Waste (Street Address &/or ULSTR):**
Key Energy Services, Inc. Sims Mesa Facility Junction of the 8 mile marker on Hwy. 527 & Rosa Road, (Attach list of origination sites as appropriate)	36 46.35N 107 28.09W
4. Source and Description of Waste	
Fuel spill from Diesel Tank. Hatchway gasket gave way and started a slow leak. Spill area was 4ft x 4ft with 3 inches of penetration into the ground. Contaminated dirt will be dug up and transported to Tierra Environmental Company, Crouch Mesa Landfarm for disposal by a Key Energy employee.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

__X__ MSDS Information
_____ RCRA Hazardous Waste Analysis
_____ Chain of Custody
_____ Other (description):

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: April 14, 2000

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Trade name	**Diesel #2 Oil**
Supplier	Fina Oil and Chemical Co P.O. Box 2159 Dallas, TX 75221
Synonym	Fuel Oil # 2, Furnace Oil #2
MSDS Name	Diesel Oil #2
Chemical Family	Hydrocarbon Mixture
CAS Registry Number	68476-34-6
Threshold Limit Value	TWA: 100 (mg/m³) from NIOSH
Manufacturer	Fina Oil and Chemical Co P.O. Box 849 Port Arthur, TX 77641-0849

Code	000456
MSDS#	P33
Validation Date	3/25/99
Print Date	9/13/99
Responsible for Preparation	Larry Myers

In Case of Emergency	**Chemtrec: (800) 424-9300** **FINA: (800) 322-FINA**
Technical Information	Port Arthur: (409) 962-4421

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Diesel Oil #2	68476-34-6	100	TWA: 100 (mg/m³) from NIOSH

Section 3. Hazards Identification

Physical State and Appearance
Liquid.

Emergency Overview
COMBUSTIBLE LIQUID AND VAPOR.
Vapor may cause fire.
MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES DAMAGE.
MAY CAUSE EYE IRRITATION.
Causes severe skin irritation.

Routes of Entry
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes Hazardous in case of eye contact (irritant).

Skin Sensitization of the product: Not available.
Very hazardous in case of skin contact (irritant). Non-corrosive for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Intoxication, dizziness, drowsiness, headache and nausea, weakness and fatigue. Burning sensation in chest, possible asphyxiation and unconsciousness.

Ingestion Local irritation, burning sensation in mouth, esophagus, and stomach. Vomiting, belching, and diarrhea with blood-tinged feces. Drowsiness. The greatest hazard of ingestion is accidental PULMONARY ASPIRATION, which can cause potentially fatal CHEMICAL PNEUMONITIS and NONCARDIOGENIC PULMONARY EDEMA.

Potential Chronic Health Effects
Signs and symptoms of chronic exposure are similar to those of acute exposure. Skin: dermatitis.
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. Lifetime skin painting studies conducted by the American Petroleum Institute and others have shown that similar products boiling between 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined.
MUTAGENIC EFFECTS: Not available. **TERATOGENIC EFFECTS**: Not available.

Medical Conditions Aggravated by Overexposure
Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Overexposure /Signs/Symptoms
Not available.

See Toxicological Information (section 11)

Continued on Next Page

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. DO NOT use an eye ointment. Seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Notes to Physician	May administer activated charcoal or gastric lavage. Emesis may result in chemical pneumonitis (#2 Diesel). Consider chest x-ray after acute overexposure and perform kidney function tests if symptoms develop or overexposure is suspected (kerosene).

Section 5. Fire Fighting Measures

Flammability of the Product	Combustible.
Auto-ignition Temperature	>204°C (399.2°F)
Flash Points	CLOSED CUP: 54.4°C (130°F). (Pensky-Martens.).
Flammable Limits	LOWER: 0.4% UPPER: 6%
Products of Combustion	carbon oxides (CO, CO2) sulfur oxides (SO2, SO3...)
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames and sparks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: Expected. Risks of explosion of the product in presence of mechanical impact: Not expected. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder, CO_2, and halon. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Protective Clothing (Fire)	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).
Special Remarks on Fire Hazards	Combustible. Avoid inhalation of vapors. May generate dense smoke while burning.
Special Remarks on Explosion Hazards	May form explosive mixtures with air. Container may explode in fire. Flashback along vapor trail may occur. May explode if ignited in an enclosed area.

Section 6. Accidental Release Measures

Small Spill and Leak	Warn personnel to move away. Eliminate ignition sources and ventilate area. Absorb with an inert material and place in an appropriate waste disposal container.
Large Spill and Leak	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

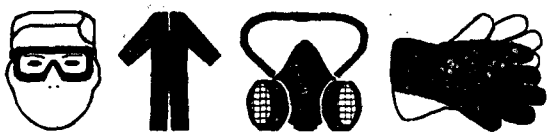
Section 7. Handling and Storage

Handling	Do not breathe gas, fumes, vapor or spray. Keep away from incompatibles such as oxidizing agents. Keep away from sources of ignition.
Storage	Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition. Keep away from incompatibles as oxidizers.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
Eyes	Safety glasses. Splash goggles.
Body	Flame retardant clothing covering the entire body.
Respiratory	Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.

Continued on Next Page

Hands	Chemical resistant gloves if contact is possible.
Feet	Not applicable.
Protective Clothing (Pictograms)	
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	Exposure Limits
1) Diesel Oil #2	TWA: 100 (mg/m³) from NIOSH

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH (1% Soln/Water)	Not applicable.
Boiling/Condensation Point	160 to 354.4°C (320 to 670°F)
Melting/Freezing Point	Not available.
Critical Temperature	Not available.
Specific Gravity	0.87 (Water = 1)
Vapor Pressure	1.6 mm of Hg (@ 20°C)
Vapor Density	8 (Air = 1)
Volatility	100% (v/v).
Odor Threshold	Not available.
Evaporation Rate	600 X slower compared to Ethylether
VOC	100 (%)
Viscosity	Not available.
LogK$_{ow}$	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Not available.
Solubility in Water	Negligible.
Physical Chemical Comments	No additional remark.

Odor	Kerosine-like
Taste	Not available.
Color	Straw color.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	Extremely reactive or incompatible with strong oxidizing agents.
Hazardous Decomposition Products	carbon monoxide & carbon dioxide
Hazardous Polymerization	No.

Continued on Next Page

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): 7500 mg/kg [Rat]. Acute oral toxicity (LD50): 9 ml/kg [Rat]. Acute dermal toxicity (LD50): >3160 mg/kg [Rabbit].
Chronic Effects on Humans	**CARCINOGENIC EFFECTS:** 3 (Not classifiable for human.) by IARC. Lifetime skin painting studies conducted by the American Petroleum Institute and others have shown that similar products boiling between 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined. The substance is toxic to the nervous system, gastro-intestinal tract, upper respiratory tract, skin, eyes.
Other Toxic Effects on Humans	Very hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).
Special Remarks on Toxicity to Animals	Prolonged or repeated inhalation of hichly concentrated petroleum distallates caused liver tumors in mice and kidney damaage and tumors in male rats. Skin paint with distillates (boiling range 100-700 F) applied repeatedly and never washed off can cause skin cancer. Chronic exposure to unfiltered diesel exhaust produced tumors in lungs and lymphomas in mice and rats.
Special Remarks on Chronic Effects on Humans	NIOSH recommends that whole diesel exhaust be regarded as a potential carcinogen.
Special Remarks on Other Toxic Effects on Humans	No additional remark.

Section 12. Ecological Information

Ecotoxicity	Aquatic toxicity: 2990 ppm/24 hr (kerosene). Does not bioconcentrate in the food chain (kerosene).
BOD5 and COD	53%, 5 days (kerosene)
Biodegradable/OECD	Not available.
Mobility	Not available.
	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Information	Recover free liquid. Transfer to an approved disposal area in accordance with federal, state, and local regulations.
Waste Stream	Not available.

Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification	DOT CLASS 3: Flammable liquid. 
	Flammable liquids n.o.s.
	NA1993
	Not available.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	No additional remark.
TDG Classification	TDG CLASS 3: Flammable liquid.
ADR/RID Classification	ADR CLASS 3: Flammable liquid A.
IMO/IMDG Classification	IMDG CLASS 3.1: Flammable liquid (Low flash point).
ICAO/IATA Classification	IATA CLASS 3: Flammable liquid.

Continued on Next Page

Section 15. Regulatory Information

HCS Classification	HCS CLASS: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).
U.S. Federal Regulations	TSCA inventory: **Diesel Oil #2** SARA 313 toxic chemical notification and release reporting: No products were found. Clean water act (CWA) 307: No products were found. Clean water act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
International Regulations	
WHMIS (Canada)	WHMIS CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
	CEPA DSL: Diesel Oil #2
EINECS	Not available.
DSCL (EEC)	R36/38- Irritating to eyes and skin.
International Lists	No products were found.
State Regulations	Pennsylvania RTK: **Diesel Oil #2** California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: No products were found.

Section 16. Other Information

Label requirements	COMBUSTIBLE LIQUID AND VAPOR. Vapor may cause fire. MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES DAMAGE.

Hazardous Material Information System (U.S.A.)

[illegible]	* 1
Fire Hazard	2
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)

References	LOLI AND TOMES (Vol 37: RTECS, CHRIS, & NEW JERSEY HAZARDOUS SUBSTANCE FACT SHEETS)
Other Special Considerations	No additional remark.

Validated by Larry Myers on 3/25/99.

Verified by Paul Bradley.

Printed 9/13/99.

Chemtrec: (800) 424-9300
FINA: (800) 322-FINA

Energy Minerals and Natural Resources Department

Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
JUL 17 2000
Environmental Bureau
Oil Conservation Division

...II - (505) 748-1283
...First
...a, NM 88210
...III - (505) 334-6178
...Rio Brazos Road
...NM 87410
...IV - (505) 827-7131

Submit Origin... Plus 1 Co... to appropria... District Offi...

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy Services
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Enervest Well Site
Management Facility Destination Tierra Land Farm	6. Transporter
Address of Facility Operator #420 CR 3100 Aztec NM	8. State
Location of Material (Street Address or ULSTR) Enervest Well Site	La Plata County, CO Sec. 0 Town. 34N Rng. 9W

Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:
Dirt Contaminated w/ hydraulic oil

...imated Volume ~10 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: Environmental Specialist DATE: 7/12/00
Waste Management Facility Authorized Agent

...PE OR PRINT NAME: Jeremy J. Bath TELEPHONE NO. 334-4494

(This space for State Use)

APPROVED BY: _____ TITLE: Geologist DATE: 7/13/00

_____ Environmental Geologist 7-17-00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name):	**Location of the Waste (Street Address &/or ULSTR):**
Enervest Well Site West Animas #9-1 LaPlata County, Colorado (Attach list of origination sites as appropriate)	Section 9 Township 34N Range 9W
4. Source and Description of Waste Dirt was contaminated with hydraulic oil when a hose ruptured on a well service rig. Approximately 20-25 gallons of oil was spilled onto the ground. Crews removed free standing oil into containers as quickly as possible. The remaining dirt is to be sampled, tested, dug up and transported to an NMOCD regulated facility located near Farmington, NM	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** *oilfield waste*

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

____ MSDS Information
____ RCRA Hazardous Waste Analysis
__X__ Chain of Custody
__X__ Other (description): Test Results from Inter-Mountain Laboratories, Inc.

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: June 28, 2000

STATE OF COLORADO

Bill Owens, Governor
Jane E. Norton, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

Grand Junction Regional Office
222 S. 6th St., Rm 232
Grand Junction, CO 81501-2768
Fax (970) 248-7198

Colorado Department
of Public Health
and Environment

July 3, 2000

Mr. Bob James
Key Energy Services, Inc.
5661 US HWY 64
Farmington NM 87401

RE: Petroleum Contaminated Soil Transfer Request
Hydraulic Oil Spill at a Colorado Well Site
La Plata County

Dear Mr. James:

The data supplied June 28, 2000 for the above referenced material have been reviewed by our office. This material consists of hydraulic oil contaminated soil from a spill at a well site located in Colorado. The material has been characterized and may be transported for treatment or disposal to a site in New Mexico at the discretion of the owner/operator of that facility. All transportation regulations that apply must be adhered to.

Please contact me in my office at 970-248-7168 if you require further information.

Sincerely,

Donna Stoner
Solid Waste Unit
Compliance Program

:ds

cc: Patricia Martinek, HMWMD, Denver
SW LAP GEN 1.1
File

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

June 27, 2000

Bob James
Key Energy Services - Four Corners
P.O. Box 900
Farmington, NM 87499
TEL: (505) 327-4935
FAX (505) 327-4962

RE: Enervest West Animas 9-1 Order No.: 0006041

Dear Bob James,

On Site Technologies, LTD. received 1 sample on 6/15/2000 for the analyses presented in the following report.

The Samples were analyzed for the following tests:
ICP Metals-RCRA, Total (SW6010B)

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,

David Cox

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

On Site Technologies, LTD. **Date:** *27-Jun-00*

CLIENT: Key Energy Services - Four Corners
Project: Enervest West Animas 9-1
Lab Order: 0006041

CASE NARRATIVE

One soil sample was sub-contracted to Inter-Mountain Laboratories.

P.O. BOX 2606 • FARMINGTON, NM 87499

RECEIVED JUN 23 2000

jml

Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 · Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: On Site Technologies Limited
Project: Metals
Sample ID: 0006041-01A Enervest West Animas 9-1; Sample 1
Lab ID: 0300W02448
Matrix: Soil
Condition: Intact

Date Reported: 06/20/00
Date Sampled: 06/15/00
Date Received: 06/16/00
Date Analyzed: 06/20/00

Parameter	Analytical Result	PQL	MCL	Units
Method 3050 - Total Metals				
Arsenic	15 .75	6	100	mg/Kg
Cadmium	1.0	0.5	20	mg/Kg
Chromium	8	1	100	mg/Kg
Lead	19 .95	5	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By: _____

On Site Technologies, LTD.
612 E. Murray Drive
Farmington, NM 87401
(505) 325-2432

CHAIN-OF-CUSTODY RECORD

Subcontractor:

Inter-Mountain Laboratories
2506 W Main

Farmington, NM 87401

TEL: (505) 326-4737
FAX:

Acct #:

16-Jun-00

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests: SW6010B
0006041-01A	Soil	6/15/2000	4OZG	1

Comments: Please analyze one (1) soil sample for Total: Arsenic, Cadmium, Chromium and Lead.

		Date/Time			Date/Time
Relinquished by:	Heidi Rea	6/16/00 1620	**Received by:**		
Relinquished by:			**Received by:**		6/14/00 1620

RECEIVED JUN 23 2000

10466

ON SITE TECHNOLOGIES, LTD.

CHAIN OF CUSTODY RECORD

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 6-15-00

Page: 1 of 1

Purchase Order No.: 93610

Project No. 15930-61004

SEND INVOICE TO
Name: Bob James
Company: Key Energy Services
Dept.:
Address: P.O. Box 900
City, State, Zip: Farmington NM 87499

REPORT RESULTS TO
Name: Bob James
Title: Shop Manager
Company: Key Energy Services
Mailing Address: P.O. Box 900
City, State, Zip: Farmington NM
Telephone No. (505) 327-4935
Telefax No. (505) 327-4962

PROJECT LOCATION: Emerest West Annex 9-1

SAMPLER'S SIGNATURE: [signature]

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: RCRA 8 metals, Cd, Cr, Pb								LAB ID
/														
Sample 1	6/15/00				1	✓								000041-01A

Relinquished by: [signature]	Date/Time 6/15/00	Received by: Helen Rosen	Date/Time 6/15/00 1300
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Rush [X] 24-48 Hours [ ] 10 Working Days [ ] By Date

Authorized by: [signature] Date 6-15-00
(Client Signature Must Accompany Request)

Special Instructions / Remarks:
Need ASAP!
PHIL - TIERRA

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
APR 0 3 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00025

1. RCRA Exempt: ☐ Non-Exempt: ☒ D Foust Verbal Approval Received 3-27-00 Yes ☒ No ☐	4. Generator Compressor System Inc.
	5. Originating Site Nebu 412
2. Management Facility Destination Tierra land Farm	6. Transporter Inland Trucking
3. Address of Facility Operator #420 CR 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Nebu 412 CSI# 41-0153	Sec. N29 T. 31N R. 7W

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B.) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil From New Compressor oil

MAR 2000 RECEIVED OIL CON. DIV DIST. 3

Estimated Volume 7 yds cy Known Volume (to be entered by the operator at the end of the haul) 7 yds cy

SIGNATURE: David Boyd TITLE: Land Farm Manager DATE: 3-29-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: _____ TELEPHONE NO. _____

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 3/31/00

APPROVED BY: Martyn J. Kieling TITLE: Environmental Geologist DATE: 4/3/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505) 334-6170

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Compressor Systems Inc Po Box 2144 Farmington NM 87499	Tierra landFarm
3. Originating Site (name): NEBU 412 (Devon) CSI # 41-0153 Attach list of originating sites as appropriate	**Location of the Waste (Street address &/or ULSTR):** Sec. N29 T. 31N R. 7W

4. Source and Description of Waste

Compressor oil which leaked out by means of a broken oil cooler - oil was contained but some ran over on ground. → Less than 200 gal

I, David Alger (Print Name) representative for: Compressor Systems Inc do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ EXEMPT oilfield waste

✓ NON-EXEMPT oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For NON-EXEMPT waste the following documentation is attached (check appropriate items):

✓ MSDS information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): D Alger

Title: Operator

Date: 3-28-2000

Material Safety Data Sheet

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON HDAX NG Screw Compressor Oil

PRODUCT NUMBER(S): CPS255204 CPS255205
SYNONYM: CHEVRON HDAX NG Screw Compressor Oil ISO 150
CHEVRON HDAX NG Screw Compressor Oil ISO 68

COMPANY IDENTIFICATION

Chevron Products Company
Global Lubricants
555 Market St.
Room 803
San Francisco, CA 94105-2870

EMERGENCY TELEPHONE NUMBERS

HEALTH (24 hr): (800)231-0623 or
(510)231-0623 (International)
TRANSPORTATION (24 hr): CHEMTREC
(800)424-9300 or (703)527-3887
Int'l collect calls accepted

PRODUCT INFORMATION: MSDS Requests: (800) 228-3500
Environmental, Safety, & Health Info: (415) 894-0703
Product Information: (800) 582-3835

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % CHEVRON HDAX NG Screw Compressor Oil

CONTAINING

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
HYDROTREATED DIST., HVY PARA			
Chemical Name: DISTILLATES, HYDROTREATED HEAVY PARAFFINIC			
CAS64742547	> 80.00%	5 mg/m3 (mist)	ACGIH TWA
		10 mg/m3 (mist)	ACGIH STEL
		5 mg/m3 (mist)	OSHA PEL
ADDITIVES	< 20.00%		

COMPOSITION COMMENT:
All the components of this material are on the Toxic Substances Control

Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m3, the OSHA PEL is 5 mg/m3.

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS
EYE:
Not expected to cause prolonged or significant eye irritation.
SKIN:
Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.
INGESTION:
Not expected to be harmful if swallowed.
INHALATION:
Contains a petroleum-based mineral oil that may cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of airborne levels above the recommended exposure limit.

4. FIRST AID MEASURES

EYE:
No specific first aid measures are required because this material is not expected to cause eye irritation. As a precaution remove contact lenses, if worn, and flush eyes with water.
SKIN:
No specific first aid measures are required because this material is not expected to be harmful if it contacts the skin. As a precaution, remove clothing and shoes if contaminated. Use a waterless hand cleaner, mineral oil, or petroleum jelly to remove the material. Then wash skin with soap and water. Wash or clean contaminated clothing and shoes before reuse.
INGESTION:
No specific first aid measures are required because this material is not expected to be harmful if swallowed. Do not induce vomiting. As a precaution, give the person a glass of water or milk to drink and get medical advice. Never give anything by mouth to an unconscious person.
INHALATION:
If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

5. FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:
Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or

combustible.
FLAMMABLE PROPERTIES:
FLASH POINT: (COC) 419-446F (215-230C) Min.
AUTOIGNITION: NDA
FLAMMABILITY LIMITS (% by volume in air): Lower: NA Upper: NA
EXTINGUISHING MEDIA:
CO2, Dry Chemical, Foam, Water Fog
NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.
FIRE FIGHTING INSTRUCTIONS:
This material will burn although it is not easily ignited.
COMBUSTION PRODUCTS:
Normal combustion forms carbon dioxide and water vapor and may produce oxides of nitrogen and phosphorus. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 hr): (800)424-9300 or (703)527-3887
International Collect Calls Accepted
ACCIDENTAL RELEASE MEASURES:
Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

Do not use pressure to empty drum or drum may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of. Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS
Use in a well-ventilated area. If user operations generate an oil mist, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT
EYE/FACE PROTECTION:
No special eye protection is normally required. Where splashing is

possible, wear safety glasses with side shields as a good safety practice.

SKIN PROTECTION:

No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances. Suggested materials for protective gloves include: <Viton> <Nitrile> <Silver Shield> <4H>

RESPIRATORY PROTECTION:

No special respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the recommended exposure limits. If not, select a NIOSH/MSHA approved respirator that provides adequate protection from concentrations of this material. Use the following elements for air-purifying respirators: particulate.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:
Liquid.

pH:	NDA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR=1):	NA
BOILING POINT:	NDA
FREEZING POINT:	NDA
MELTING POINT:	NA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	NDA
DENSITY:	NDA
EVAPORATION RATE:	NA
VISCOSITY:	61.2 - 135 cSt @ 40C (Min.)
PERCENT VOLATILE (VOL):	NA

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:
No data available.

CHEMICAL STABILITY:
Stable.

CONDITIONS TO AVOID:
No data available.

INCOMPATIBILITY WITH OTHER MATERIALS:
May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS POLYMERIZATION:
Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
The eye irritation hazard is based on data for a similar material.
SKIN EFFECTS:
The skin irritation hazard is based on data for a similar material.
ACUTE ORAL EFFECTS:
The acute oral toxicity is based on data for a similar material.
ACUTE INHALATION EFFECTS:
The acute respiratory toxicity is based on data for a similar material.
ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

12. ECOLOGICAL INFORMATION

ECOTOXICITY:
This material is not expected to be harmful to aquatic organisms.
ENVIRONMENTAL FATE:
This material is not expected to be readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT
DOT HAZARD CLASS: NOT APPLICABLE
DOT IDENTIFICATION NUMBER: NOT APPLICABLE
DOT PACKING GROUP: NOT APPLICABLE

15. REGULATORY INFORMATION

SARA 311 CATEGORIES:

1. Immediate (Acute) Health Effects: NO
2. Delayed (Chronic) Health Effects: NO
3. Fire Hazard: NO
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313	11=NJ RTK	22=TSCA Sect 5(a)(2)
02=MASS RTK	12=CERCLA 302.4	23=TSCA Sect 6
03=NTP Carcinogen	13=MN RTK	24=TSCA Sect 12(b)
04=CA Prop 65-Carcin	14=ACGIH TWA	25=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	15=ACGIH STEL	26=TSCA Sect 8(d)
06=IARC Group 1	16=ACGIH Calc TLV	27=TSCA Sect 4(a)
07=IARC Group 2A	17=OSHA PEL	28=Canadian WHMIS
08=IARC Group 2B	18=DOT Marine Pollutant	29=OSHA CEILING
09=SARA 302/304	19=Chevron TWA	30=Chevron STEL
10=PA RTK	20=EPA Carcinogen	

The following components of this material are found on the regulatory lists indicated.

DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
is found on lists: 14,15,17,

EU RISK AND SAFETY STATEMENTS:
May cause long-term adverse effects in the aquatic environment.
NEW JERSEY RTK CLASSIFICATION:
Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows:
PETROLEUM OIL
WHMIS CLASSIFICATION:
This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

16. OTHER INFORMATION

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:
This is a new Material Safety Data Sheet

Revision Number: 0 **Revision Date: 10/25/97** **MSDS Number: 006852**

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short-term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	PEL - Permissible Exposure Limit
C - Ceiling Limit	CAS - Chemical Abstract Service Number
A1-5 - Appendix A Categories	() - Change Has Been Proposed
NDA - No Data Available	NA - Not Applicable

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Toxicology and Health Risk Assessment Unit, CRTC, P.O. Box 4054, Richmond, CA 94804

****

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

****

THIS IS THE LAST PAGE OF THIS MSDS

****

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
[illegible], NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

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APR 17 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 97057.25

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator EPFS
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Montezuma Comp. Station
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	"E" Sec 16, T29N, R9W SJC NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

clean up of overflow of oily wastewater tank.
TCLP Attached

Estimated Volume 20 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M. Brown (Waste Management Facility Authorized Agent) TITLE: Landfarm Manager DATE: 4.12.00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: [signature] TITLE: Geologist DATE: 4/13/2000

APPROVED BY: [signature] TITLE: Environmental Geologist DATE: 4/17/00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
El Paso Field Services Co. 614 Reilly Avenue Farmington, NM 87401	Envirotech Soil Remediation Facility Landfarm #2 Hilltop, New Mexico
3. Originating Site (name): Manzanares Compressor Station Attach list of originating sites as appropriate	Location of Waste(Street address &/or ULSTR): E-16-29N-9W. San Juan Co., NM
4. Source and Description of Waste Overflow of oily wastewater tank	

I, David Bays representative for:
(Print Name)

El Paso Field Services Co. do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988 regulatory determination, the above described waste is: (Check appropriate classification)

____ **EXEMPT** Oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-hazardous waste defined above.

For **NON-EXEMPT** waste only, the following documentation is attached (check appropriate items):

_____ MSDS Information
__X__ RCRA Hazardous Waste Analysis
_____ Chain of Custody
____ Other (description)

Name (Original Signature): David Bays

Title: Principal Environmental Scientist

Date: April 5, 2000

District I - (505) 393-6161
P. O. Box 1940
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

State of New Mexico

Energy Minerals and Natural Resources Departments
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-141
Originated 2/13/97

Submit 2 Copies to Appropriate District Office in accordance with Rule 116

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name	Contact
El Paso Field Services Co.	David Bays
Address	Telephone No.
614 Reilly Ave Farmington, NM 87401	(505) 599-2256
Facility Name	Facility Type
Manzanares Compressor Station	Natural Gas Compressor Station

Surface Owner	Mineral Owner	Lease No.
BLM		

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	16	29N	9W					San Juan

NATURE OF RELEASE

Type of Release Used lube oil mixed with wash down water	Volume released 20 bbls.	Volume Recovered none
Source of Release oily wastewater tank overflowed onto ground	Date and Hour of Occurrence 4/3/00 8:00AM	Date and Hour of Discovery 4/3/00 8:00AM
Was Immediate Notice Give? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD – Denny Foust	
By Whom? David Bays	Date and Hour 4/3/00 9:00AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
The oily wastewater tank overflowed due to high volume of rain water falling onto the compressor skids. In the future the tank will be pumped out more often during period of heavy rain.

Describe Area Affected and Cleanup Action Taken.*
The oily wastewater drained approximately 300 feet across the station yard onto a small area off site. The landowner was contacted, the soil was excavated and stockpiled for off site disposal after waste characterization results are received.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.)*
Dry, light winds, soils damp from recent rains

I hereby certify that the information given is true and correct to the best of my knowledge and belief: Signature: David Bays	OIL CONSERVATION DIVISION	
Printed Name: David Bays	Approved by District Supervisor:	
Title: Principal Environmental Scientist	Approval Date:	Expiration Date:
Date: 3/5/00 Phone: (505) 599-2256	Conditions of Approval:	Attached: ☐

*Attach Additional Sheets If Necessary

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	EPFS	Project #:	705725
Sample ID:	Lube Oil Upset	Date Reported:	04-11-00
Lab ID#:	H015	Date Sampled:	04-05-00
Sample Matrix:	Soil	Date Received:	04-05-00
Preservative:	Cool	Date Analyzed:	04-06-00
Condition:	Cool and Intact	Chain of Custody:	7778

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 8.43**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*

Reference: 40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.

Comments: **Manzanares Comp. Station.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	EPFS	Project #:	705725
Sample ID:	Lube Oil Upset	Date Reported:	04-10-00
Laboratory Number:	H015	Date Sampled:	04-05-00
Chain of Custody:	7778	Date Received:	04-05-00
Sample Matrix:	TCLP Extract	Date Extracted:	04-06-00
Preservative:	Cool	Date Analyzed:	04-07-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.0092	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.0010	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **Manzanares Comp. Station.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	EPFS	Project #:	705725
Sample ID:	Lube Oil Upset	Date Reported:	04-12-00
Laboratory Number:	H015	Date Sampled:	04-05-00
Chain of Custody:	7778	Date Received:	04-05-00
Sample Matrix:	TCLP Extract	Date Extracted:	04-06-00
Preservative:	Cool	Date Analyzed:	04-12-00
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **Manzanares Comp. Station.**

Analyst

Review

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

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	EPFS	Project #:	705725
Sample ID:	Lube Oil Upset	Date Reported:	04-12-00
Laboratory Number:	H015	Date Sampled:	04-05-00
Chain of Custody:	7778	Date Received:	04-05-00
Sample Matrix:	TCLP Extract	Date Extracted:	04-06-00
Preservative:	Cool	Date Analyzed:	04-11-00
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**98%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **Manzanares Comp. Station.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC
LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	EPFS	Project #:	705725
Sample ID:	Lube Oil Upset	Date Reported:	04-11-00
Laboratory Number:	H015	Date Sampled:	04-05-00
Chain of Custody:	7778	Date Received:	04-05-00
Sample Matrix:	TCLP Extract	Date Analyzed:	04-10-00
Preservative:	Cool	Date Extracted:	04-06-00
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.033**	**0.001**	**5.0**
Barium	**1.20**	**0.001**	**21**
Cadmium	**0.019**	**0.001**	**0.11**
Chromium	**0.007**	**0.001**	**0.60**
Lead	**0.028**	**0.001**	**0.75**
Mercury	**ND**	**0.001**	**0.025**
Selenium	**ND**	**0.001**	**5.7**
Silver	**0.001**	**0.001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Manzanares Comp. Station.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-10-00
Laboratory Number:	04-07-TCLP VOL	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-07-00
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for sample H015.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-10-00
Laboratory Number:	04-06-TV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-07-00
Condition:	N/A	Date Extracted:	04-06-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for sample H015.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-10-00
Laboratory Number:	H015	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-07-00
Condition:	N/A	Date Extracted:	04-06-00

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	0.0092	0.0092	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	0.0010	0.0010	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H015.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	04-10-00
Laboratory Number:	H015	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	04-07-00
Condition:	N/A	Date Extracted:	04-06-00

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	0.0092	0.050	0.0587	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	0.0010	0.050	0.0508	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for sample H015.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-12-00
Laboratory Number:	04-12-TCA	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	04-12-00
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for sample H015.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-12-00
Laboratory Number:	04-06-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	04-06-00
Condition:	Cool & Intact	Date Analyzed:	04-12-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **QA/QC for sample H015.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-12-00
Laboratory Number:	H015	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	04-06-00
Condition:	Cool & Intact	Date Analyzed:	04-12-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	ND	ND	0.020	0.0%
2,4,5-Trichlorophenol	ND	ND	0.020	0.0%
Pentachlorophenol	ND	ND	0.020	0.0%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

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

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

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

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

Comments: **QA/QC for sample H015.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	04-12-00
Laboratory Number:	04-11-TBN	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	04-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**96%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample H015.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	04-12-00
Laboratory Number:	04-06-BN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	04-06-00
Condition:	Cool and Intact	Date Analyzed:	04-11-00
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**95%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample H015.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	04-12-00
Laboratory Number:	H015	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	04-06-00
Condition:	N/A	Date Analyzed:	04-11-00
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	**ND**	**ND**	**0.0%**	**0.020**
Hexachloroethane	**ND**	**ND**	**0.0%**	**0.020**
Nitrobenzene	**ND**	**ND**	**0.0%**	**0.020**
Hexachlorobutadiene	**ND**	**ND**	**0.0%**	**0.020**
2,4-Dinitrotoluene	**ND**	**ND**	**0.0%**	**0.020**
HexachloroBenzene	**ND**	**ND**	**0.0%**	**0.020**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	**30%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for sample H015.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	04-10-TCM QA/QC	Date Reported:	04-11-00
Laboratory Number:	H015	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	04-10-00
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.001	0.033	0.032	3.0%	0% - 30%
Barium	ND	ND	0.001	1.20	1.18	1.7%	0% - 30%
Cadmium	ND	ND	0.001	0.019	0.019	0.0%	0% - 30%
Chromium	ND	ND	0.001	0.007	0.007	0.0%	0% - 30%
Lead	ND	ND	0.001	0.028	0.028	0.0%	0% - 30%
Mercury	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.001	ND	ND	0.0%	0% - 30%
Silver	ND	ND	0.001	0.001	0.001	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.500	0.033	0.532	99.8%	80% - 120%
Barium	0.500	1.20	1.69	99.4%	80% - 120%
Cadmium	0.500	0.019	0.518	99.8%	80% - 120%
Chromium	0.500	0.007	0.507	100.0%	80% - 120%
Lead	0.500	0.028	0.527	99.8%	80% - 120%
Mercury	0.050	ND	0.049	98.0%	80% - 120%
Selenium	0.500	ND	0.499	99.8%	80% - 120%
Silver	0.500	0.001	0.500	99.8%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission, SW-846, USEPA, December 1996.

Comments: **QA/QC for sample H015.**

Analyst

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CHAIN OF CUSTODY RECORD

7778

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
EPFS	MANZARES Comp Station.	

Sampler:	Client No.
HARLAN M. BROWN	97057-25

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Herb						Remarks
Lube Oil Upset	04.05.00	9:20	#015	Soil	1	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Harlan M Brown	04.05.00	10:55	[signature]	4-5-00	10:55
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 92132-07

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☒ — Denny Foust OK to Haul for Approval	4. Generator Halliburton Energy Services
	5. Originating Site Main Yard
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	4109 E. Main Farmington, NM 87401

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of LGC-VIII Concentrate released as a result of vandalism. Guar gum product activated to gel due to contact w/ storm water on pavement and in 2nd containment.
MSDS attached.

MAR 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 4600gal. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 03-27-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny G Foust TITLE: Geologist DATE: 3/28/00

APPROVED BY: Roger C Anderson TITLE: Bureau Chief DATE: 3/31/00

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
HALLIBURTON ENERGY SERVICES 4109 E MAIN ST. FARMINGTON N.M. 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop,New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): MAIN ST. FACILITY Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste VANDERSPA LGC-8 TANK	4600 gallons of diesel based gelling agent, DGA 3/28/00

I, ROBERT SMITH (Print Name) representative for:

HALLIBURTON ENERGY SERVICES do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

_X_ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

- _X_ MSDS Information
- ___ RCRA Hazardous Waste Analysis
- ___ Chain of Custody
- ___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): ROBERT SMITH

Title: HES ADVISOR

Date: 3-24-00

46008.

MATERIAL SAFETY DATA SHEET DATE: 03-23-00
HALLIBURTON ENERGY SERVICES REVISED DATE 04-07-99
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359
EMERGENCY TELEPHONE: 800/666-9260 OR 580/251-3359

* * * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * * *

CHEMICAL CODE: LGC-VIII CONCENTRATE - BULK PART NUMBER: 516005670
PKG QTY: CARGO TANK APPLICATION: CONCENTRATE
SERVICE USED: STIMULATION

* * * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * *

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
GUAR GUM 4000 lb.	31-60 %	10 MG/M3	15 MG/M3
ETHOXYLATED NONYLPHENOL	1-10 %	NOT EST	NOT EST
DIESEL 1080 gallon	31-60 %	NOT EST	NOT EST

* * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * *

PROPERTY	MEASUREMENT
APPEARANCE	YELLOWISH LIQUID, GEL
ODOR	DIESEL
SPECIFIC GRAVITY (H2O=1)	1.035
BULK DENSITY	8.62 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	NIL
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	100
EVAPORATION RATE(BUTYL ACETATE=1)	<1
VAPOR DENSITY	5-6
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	300 F / 148 C
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

* * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE
FLASH POINT 128 F / 53 C FLASH MTHD TCC
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D
++
EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED

CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND INJURIES.

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND NITROGEN OXIDES.

* * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:

PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:

PRODUCT OR COMPONENTS ARE LISTED AS A POTENTIAL CARCINOGEN ACCORDING TO : NTP, IARC, AND OSHA

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

EYE:

MAY CAUSE EYE IRRITATION.

SKIN:

FREQUENT OR PROLONGED CONTACT WILL DRY AND DEFAT THE SKIN, POSSIBLY LEADING TO IRRITATION AND DERMATITIS. REPEATED CONTACT MAY SENSITIZE THE SKIN.

INHALATION:

HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.

VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA AND VOMITING, DIARRHEA, AND COLLAPSE MAY RESULT FROM INGESTION.

ASPIRATION INTO LUNGS BY INGESTION OR VOMITING, MAY CAUSE CHEMICAL PNEUMONITIS RESULTING IN EDEMA AND HEMORRAGE AND MAY BE FATAL. SYMPTOMS INCLUDE INCREASED RESPIRATORY RATE AND BLUISH DISCOLORATION OF SKIN.

COUGHING AND GAGGING ARE OFTEN NOTED AT THE TIME OF ASPIRATION.

CHRONIC EFFECTS:

PROLONGED OR REPEATED APPLICATION OF A SIMILAR PRODUCT TO THE SKIN OF LAB LABORATORY MICE WITHOUT WASHING BETWEEN APPLICATIONS RESULTED IN INCREASED INCIDENCE OF SKIN TUMORS. IT IS SUSPECTED THAT TUMORS MAY BE DUE IN PART TO SEVERELY IRRITATED CONDITIONS FROM CONTINOUS CONTACT WITH THE PRODUCT.

OTHER SYMPTOMS AFFECTED:

BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS.

---------- EMERGENCY AND FIRST AID PROCEDURES ----------

EYE:

IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.

SKIN:

PROMPTLY WASH SKIN WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL

ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! ASPIRATION INTO LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO LUNGS.

* * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * * *

STABILITY: STABLE
CONDITIONS TO AVOID:
HEAT, SPARKS AND OPEN FLAME.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE. REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.
WASTE DISPOSAL METHOD:
GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

* * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * * *

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.
IN OXYGEN DEFICIENT AREAS OR CONFINED SPACES, POSITIVE PRESSURE SUPPLIED-AIR RESPIRATOR WITH 5-MINUTE AUXILIARY BOTTLE, OR PRESSURE-DEMAND OR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.
LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR COMBUSTIBLE ATMOSPHERES (NEC CLASS II EQUIPMENT).
PROTECTIVE GLOVES:
IMPERVIOUS RUBBER GLOVES.
EYE PROTECTION:
WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

* * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * *

WARNING!
MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
COMBUSTIBLE!
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
KEEP FROM HEAT, SPARKS, AND OPEN FLAME.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

* * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * *

DOT SHIPPING DESCRIPTION:
DIESEL FUEL SOLUTION - 3 - NA1993 - III

* * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): Y MIXTURE OR PURE MATERIAL: MIX

B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
N/A

C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

COMPONENT NAME	CAS-REG-NO	PCT
ETHOXYLATED NONYLPHENOL	9016-45-9	1-10 %

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACOIN N/D NPR NE DRSM NE

H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES MEET THE CRITERIA OF A HAZARDOUS WASTE AS DEFINED BY US EPA BECAUSE OF:

IGNITABILITY

* *

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: _____

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Phillips Petroleum.
Verbal Approval Received: Yes ☐ No ☒	5. Originating Site Key Energy Simms Mesa Yard.
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Barella
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	"G" Sec 33 T30N R6W Rio Arriba County, NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Clean up of diesel leaks at a fuel storage tank (AST). (MSDS).

Estimated Volume 4 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M Brown Waste Management Facility Authorized Agent TITLE: Landfarm Manager DATE: 03-16-00

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 3/20/2000

APPROVED BY: Matthew J. Kelly TITLE: Environmental God DATE: 3-22-00

RECEIVED MAR 1 5 2000

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy. 64, Farmington, NM 87401
3. Originating Site: (name): Key Energy Service Sim Mesa Yard, New Mexico (Attach list of origination sites as appropriate)	**Location of the Waste (Street Address &/or ULSTR):** 36 46.35N 107 28.09W
4. Source and Description of Waste Contaminated dirt from a diesel fuel spill inside of our yard. A tank that was leased to Phillips Petroleum was stored in Key's yard for a couple of days. Key provided supervision on the clean up by Envirotech.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

__X__ MSDS Information
_____ RCRA Hazardous Waste Analysis
_____ Chain of Custody
_____ Other (description):

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: March 13, 2000

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

March 14, 2000

Key Energy Services
Attn: Bob James
P.O. Box 900 505-327-4935
Farmington, New Mexico 87499 Fax 505-327-4962

Re: Diesel spill cleanup at Key Energy's Simms Mesa Yard

Dear Bob:

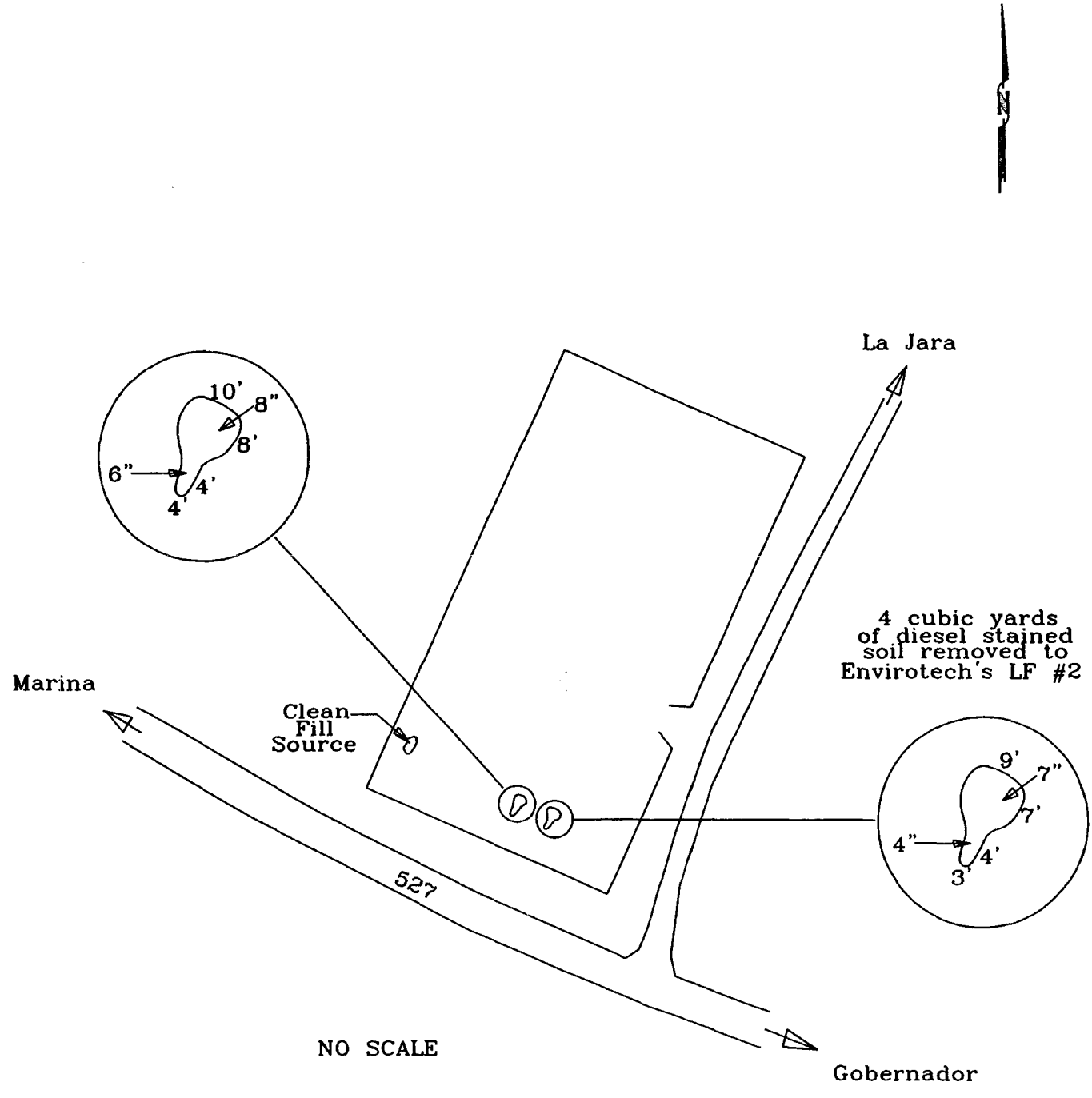
The following is a summary of cleanup activities conducted by Envirotech personnel at the Simms Mesa yard. In response to a release of diesel at two locations on the site Envirotech provided laborers (2), a backhoe, and dump truck to clean up diesel contaminated soil related to a leak at an aboveground storage tank located at the site. The two releases were approximately the same size (see attached figure). Soil was excavated to depths of 4" to 8" depending on odors observed in the soil. No soil samples were collected to confirm clean closure. Approximately 4 cubic yards of soil was removed during the cleanup. Clean soil for backfill of the excavated areas was obtained from a designated location within the fenced compound.

Diesel contaminated soil was transported to Envirotech's Soil Remediation Facility, Landfarm #2 for remediation. Profile of the soil is based on information obtained from Material Safety Data Sheets for the product.

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

Sincerely,
Envirotech Inc.

Sam Ray Jr.
Construction Superintentdent



All angles, directions, and distances determined by sighting and pacing from existing site features. Accuracy of measurementis implied only to the degree of accuracy of method.

Key Energy Simms Mesa Yard Diesel Fuel Spill Compressor Location "G", Sec. 33, T30N, R6W Rio Arriba, County, NM Project No.: 97070	Envirotech Inc. Environmental Scientists & Engineers 5796 US Highway 64 Farmington, New Mexico	Site Map Figure 1 | Date: 03/00 DRW: HMB | PRJ MGR: SR Jr.

GASC0220 Revised 10-JAN-1994 Printed 5-APR-1994

No. 2 Diesel Fuel

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification
CAS Number 68476-34-6

 # Tradenames and Synonyms
Diesel Fuel No. 2, Low Sulfur
Diesel Fuel No. 2, High Sulfur
-
3502, 3504, 3510, 3512, 4152

Company Identification
MANUFACTURER/DISTRIBUTOR
CONOCO INC.
P.O. BOX 2197
HOUSTON, TX 77252

PHONE NUMBERS

Product Information	1-713-293-5550
Transport Emergency	CHEMTREC 1-800-424-9300
Medical Emergency	1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
Diesel Fuel, No. 2	68476-34-6	100

HAZARDS IDENTIFICATION

Potential Health Effects

Primary Routes of Exposure/Entry: Skin, Inhalation.

Signs and Symptoms of Exposure/Medical Conditions Aggravated by Exposure:
The product may cause irritation to the eyes, lungs, and skin after prolonged or repeated exposure. Extreme

(Continued)

HAZARDS IDENTIFICATION (Continued)

overexposure or aspiration into the lungs may cause lung damage and death. Overexposure may cause weakness, headache, nausea, confusion, blurred vision, drowsiness, and other nervous system effects; greater exposure may cause dizziness, slurred speech, flushed face, unconsciousness, and convulsions.

It is highly unlikely that human exposure at or below the recommended exposure level poses a significant health hazard. In this regard, good workplace practices and proper engineering designs will minimize exposure.

Decomposition Products:
Studies in mice and rats have shown that chronic exposure (8 hours/day, 7 days/week, 24 months) to unfiltered diesel exhaust produced tumors of the lung and also lymphomas. On the basis of these studies, NIOSH recommends that whole diesel exhaust be regarded as a potential carcinogen.

Carbon monoxide is a gas that can result from incomplete combustion of hydrocarbons, from detoxification of some chemicals like methylene chloride, tobacco smoke, and even from natural body processes. Carbon monoxide binds tightly to hemoglobin and interferes with oxygen transport to body tissues. Overexposure can cause headache, nausea, nervous system depression, coma, and death.

Carcinogenicity Information
None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES

First Aid
INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

Wash skin thoroughly with soap and water. If irritation develops and persists, consult a physician.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

(Continued)

FIRST AID MEASURES(Continued)

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians
Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point	130 F (54 C)
Method	TCC
Flammable limits in Air, % by Volume	
LEL	0.4
UEL	6
Autoignition	494 F (257 C)

Vapor forms explosive mixture with air. Vapors or gases may travel considerable distances to ignition source and flash back.

NFPA Classification Class II Combustible Liquid.

Extinguishing Media
Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions
Special Fire Fighting Procedures: Use water to keep fire-exposed containers cool. If leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for personnel attempting to stop a leak. Water spray may be used to flush spills away from exposures.

Unusual Fire and Explosion Hazards: Products of combustion may contain carbon monoxide, carbon dioxide and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)
NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Remove source of heat, sparks, flame, impact, friction and electricity including internal combustion engines and power tools. If equipment is used for spill cleanup, it must be explosion proof and suitable for flammable liquid and vapor.

(Continued)

ACCIDENTAL RELEASE MEASURES (Continued)

NOTE: Vapors released from the spill may create an explosive atmosphere.

Initial Containment
Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up
Soak up with sawdust, sand, oil dry or other absorbent material.

HANDLING AND STORAGE

Handling (Personnel)
Avoid breathing vapors or mist. Wash thoroughly after handling. Wash clothing after use.

Handling (Physical Aspects)
Ground container when pouring. Keep away from heat, sparks and flames.

Storage
Store in a well ventilated place. Keep container tightly closed. Store in accordance with National Fire Protection Association recommendations. Store away from heat, sparks and flames, oxidizers.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls
Use only with adequate ventilation. Keep container tightly closed.

Personal Protective Equipment
Respiratory Protection: Select appropriate NIOSH-approved respiratory protection when needed to avoid inhalation of mist or vapors and to maintain exposures below acceptable limits.

Protective Gloves: Impervious gloves, such as neoprene or NBR, should be worn when the potential exists for prolonged or repeated skin exposure.

Eye Protection: Safety glasses with side shields. Chemical goggles required when exposed to spray or mist or if splashing is probable.

Other Protective Equipment: Coveralls if splashing is probable. Launder contaminated clothing before reuse.

Exposure Guidelines
Exposure Limits
No. 2 Diesel Fuel

PEL	(OSHA)	None Established
TLV	(ACGIH)	None Established

(Continued)

PHYSICAL AND CHEMICAL PROPERTIES

 # Physical Data

Boiling Point	350-690 F (177-366 C)
Vapor Pressure	1 mm Hg @ 68 F (20 C)
Vapor Density	>1 (Air = 1)
% Volatiles	(by volume) Nil
Solubility in Water	Insoluble
Odor	Aromatic
Form	Liquid
Color	*
Specific Gravity	0.84-0.88 @ 60 F (16 C))

*Color : High Sulfur - Green
Low Sulfur - Red or Undyed (Clear or Straw-Colored)

STABILITY AND REACTIVITY

Chemical Stability
Stable at normal temperatures and storage conditions.

Conditions to Avoid
Avoid heat, sparks, and flame.

Incompatibility with Other Materials
Incompatible or can react with strong oxidizers.

Decomposition
Incomplete combustion may produce carbon monoxide.

Polymerization
Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data
Animal studies have shown that prolonged or repeated inhalation exposures to high concentrations of some petroleum distillates have caused liver tumors in mice and kidney damage and tumors in male rats. However, kidney effects were not seen in similar studies involving female rats, guinea pigs, dogs, or monkeys. Present studies indicate the kidney effects will only occur in male rats. Also, human studies do not indicate this peculiar sensitivity for kidney damage and studies reported in 1992 showed that this particular type of rat kidney damage is not useful in predicting a human health hazard. The significance of liver tumors in mice exposed to high doses of chemicals is highly speculative and probably not a good indicator for predicting a potential human carcinogenic hazard.

Mouse skin painting studies have shown that petroleum middle distillates (boiling range 100-700 F; naphtha, jet fuel, diesel fuel, kerosene, etc.) can cause skin cancer when repeatedly applied and never washed from the animal's skin. The relative

(Continued)

TOXICOLOGICAL INFORMATION(Continued)

significance of this to human health is uncertain since the petroleum distillates were not washed from the skin and resulting skin effects (irritation, cell damage, etc.) may play a role in the tumorigenic response. A few studies have shown that washing the animal's skin with soap and water between treatements greatly reduces the carcinogenic effect of some petroleum oils.

Diesel Fuel -
Skin : Extremely irritating; no mortality at 5 ml/kg in rabbits
Oral : LD50 of 9 ml/kg in rats

DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

By itself, the liquid is expected to be a RCRA ignitable hazardous waste.

TRANSPORTATION INFORMATION

Shipping Information

INTERNATIONAL HM-181

Proper Shipping Name	Gas Oil
Hazard Class	3
UN/NA Number	UN 1202
Packing Group	III
Label	Flammable liquid
Placard	Flammable

DOMESTIC HM-181

Proper Shipping Name	Diesel fuel
Hazard Class	Combustible liquid
UN/NA Number	NA 1993
Packing Group	III
Label	None
Placard	Combustible
Special Information	If shipped by vessel or air, use international description.

(Continued)

REGULATORY INFORMATION

U.S. Federal Regulations

OSHA HAZARD DETERMINATION
This material is hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA/SUPERFUND
Not applicable; this material is covered by the CERCLA petroleum exclusion. Releases are not reportable.

SARA, TITLE III, 302/304
This material is not known to contain extremely hazardous substances.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute	: Yes
Chronic	: Yes
Fire	: Yes
Reactivity	: No
Pressure	: No

SARA, TITLE III, 313
This material is not known to contain any chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and subject to release reporting requirements.

TSCA
This material is in the TSCA Inventory of Chemical Substances (40 CFR 710) and/or is otherwise in compliance with TSCA.

RCRA
This material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations. It could become a hazardous waste if it is mixed with, or comes in contact with, a listed hazardous waste. If it is a hazardous waste, regulations at 40 CFR 262-266 and 268 may apply.

CLEAN WATER ACT
The material contains the following ingredient(s) which is considered hazardous if spilled into navigable waters and therefore reportable to the National Response Center (1-800-424-8802).

Ingredient(s)	Petroleum Hydrocarbons
Reportable Quantity	Film or sheen upon, or discoloration of, any water surface.

State Regulations (U.S.)

CALIFORNIA "PROP 65"
This material is not known to contain any ingredient(s) subject to the Act.

PENNSYLVANIA WORKER & COMMUNITY RIGHT TO KNOW ACT
This material contains the following ingredient(s) subject to the

(Continued)

REGULATORY INFORMATION(Continued)

Pennsylvania Worker and Community Right to Know Hazardous Substances List.

Ingredient	Diesel Fuel Oil
Category	Hazardous Substance

Canadian Regulations

CLASS B Division 3 - Combustible Liquid.

CLASS D Division 2 Subdivision B - Toxic Material. Chronic Toxic Effects.

Transport/Medical Emergency Phone Number: 1-613-348-3616

OTHER INFORMATION

NFPA, NPCA-HMIS

NFPA Rating	
Health	0
Flammability	2
Reactivity	0

NPCA-HMIS Rating	
Health	1
Flammability	2
Reactivity	0

Personal Protection rating to be supplied by user depending on use conditions.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS	MSDS Administrator
Address	Conoco Inc. PO Box 2197 Houston, TX 77252
Telephone	713/293-5550

# Indicates updated section.

End of MSDS

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 3/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00022

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy Services
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Largo Road
2. Management Facility Destination Tierra land Farm	6. Transporter Key Energy
3. Address of Facility Operator #420 CR 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Largo Road	Sec 17 T.29N R.9W

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil From Diesel Fuel spill

MAR 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume .5 cy Known Volume (to be entered by the operator at the end of the haul) .5 cy

SIGNATURE: David Bonawitz TITLE: LandFarm Manager DATE: 3-17-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: David Bonawitz TELEPHONE NO. 334-8894

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 3/20/00

APPROVED BY: Roger Anderson TITLE: Bureau Chief DATE: 3/23/00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name): Key Energy Services, Inc. Unit 2519 Transport Largo Road, San Juan, NM (Attach list of origination sites as appropriate)	**Location of the Waste (Street Address &/or ULSTR):** T29N R9W SEC 187 17 D87 3/21/00
4. Source and Description of Waste On March 14, 2000 while transporting equipment from one location to the next, a valve vibrated open spilling diesel fuel. Driver noted the spill, stopped and shoveled up the contaminated dirt. Dirt was transported to Key's yard that evening in storage containers.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

__X__ MSDS Information
_____ RCRA Hazardous Waste Analysis
_____ Chain of Custody
_____ Other (description):

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: March 15, 2000

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Trade name	**Diesel #2 Oil**
Supplier	Fina Oil and Chemical Co P.O. Box 2159 Dallas, TX 75221
Synonym	Fuel Oil # 2, Furnace Oil #2
MSDS Name	Diesel Oil #2
Chemical Family	Hydrocarbon Mixture
CAS Registry Number	68476-34-6
Threshold Limit Value	TWA: 100 (mg/m³) from NIOSH
Manufacturer	Fina Oil and Chemical Co P.O. Box 849 Port Arthur, TX 77641-0849

Code	000456
MSDS#	P33
Validation Date	3/25/99
Print Date	9/13/99
Responsible for Preparation	Larry Myers

In Case of Emergency	Chemtrec: (800) 424-9300 FINA: (800) 322-FINA
Technical Information	Port Arthur: (409) 962-4421

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Diesel Oil #2	68476-34-6	100	TWA: 100 (mg/m³) from NIOSH

Section 3. Hazards Identification

Physical State and Appearance
Liquid.

Emergency Overview
COMBUSTIBLE LIQUID AND VAPOR.
Vapor may cause fire.
MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES DAMAGE.
MAY CAUSE EYE IRRITATION.
Causes severe skin irritation.

Routes of Entry
Dermal contact. Eye contact. Inhalation. Ingestion.

Potential Acute Health Effects

Eyes Hazardous in case of eye contact (irritant)

Skin Sensitization of the product: Not available.
Very hazardous in case of skin contact (irritant). Non-corrosive for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Inhalation Intoxication, dizziness, drowsiness, headache and nausea, weakness and fatigue. Burning sensation in chest, possible asphyxiation and unconsciousness.

Ingestion Local irritation, burning sensation in mouth, esophagus, and stomach. Vomiting, belching, and diarrhea with blood-tinged feces. Drowsiness. The greatest hazard of ingestion is accidental PULMONARY ASPIRATION, which can cause potentially fatal CHEMICAL PNEUMONITIS and NONCARDIOGENIC PULMONARY EDEMA.

Potential Chronic Health Effects
Signs and symptoms of chronic exposure are similar to those of acute exposure. Skin: dermatitis.
CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. Lifetime skin painting studies conducted by the American Petroleum Institute and others have shown that similar products boiling between 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined.
MUTAGENIC EFFECTS: Not available. **TERATOGENIC EFFECTS:** Not available.

Medical Conditions Aggravated by Overexposure
Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Overexposure /Signs/Symptoms
Not available.

See Toxicological Information (section 11)

Continued on Next Page

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. DO NOT use an eye ointment. Seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Notes to Physician	May administer activated charcoal or gastric lavage. Emesis may result in chemical pneumonitis (#2 Diesel). Consider chest x-ray after acute overexposure and perform kidney function tests if symptoms develop or overexposure is suspected (kerosene).

Section 5. Fire Fighting Measures

Flammability of the Product	Combustible.
Auto-Ignition Temperature	>204°C (399.2°F)
Flash Points	CLOSED CUP: 54.4°C (130°F). (Pensky-Martens.).
Flammable Limits	LOWER: 0.4% UPPER: 6%
Products of Combustion	carbon oxides (CO, CO2) sulfur oxides (SO2, SO3...)
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames and sparks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: Expected. Risks of explosion of the product in presence of mechanical impact: Not expected. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder, CO_2, and halon. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Protective Clothing (Fire)	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).
Special Remarks on Fire Hazards	Combustible. Avoid inhalation of vapors. May generate dense smoke while burning.
Special Remarks on Explosion Hazards	May form explosive mixtures with air. Container may explode in fire. Flashback along vapor trail may occur. May explode if ignited in an enclosed area.

Section 6. Accidental Release Measures

Small Spill and Leak	Warn personnel to move away. Eliminate ignition sources and ventilate area. Absorb with an inert material and place in an appropriate waste disposal container.
Large Spill and Leak	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

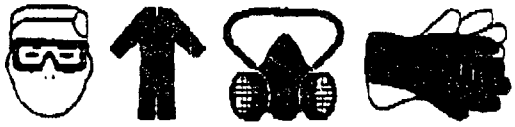
Section 7. Handling and Storage

Handling	Do not breathe gas, fumes, vapor or spray. Keep away from incompatibles such as oxidizing agents. Keep away from sources of ignition.
Storage	Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition. Keep away from incompatibles as oxidizers.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
Eyes	Safety glasses. Splash goggles.
Body	Flame retardant clothing covering the entire body.
Respiratory	Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.

Continued on Next Page

	Hands Chemical resistant gloves if contact is possible.
	Feet Not applicable.
Protective Clothing (Pictograms)	
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	Exposure Limits
1) Diesel Oil #2	TWA: 100 (mg/m³) from NIOSH

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH (1% Soln/Water)	Not applicable.
Boiling/Condensation Point	160 to 354.4°C (320 to 670°F)
Melting/Freezing Point	Not available.
Critical Temperature	Not available.
Specific Gravity	0.87 (Water = 1)
Vapor Pressure	1.6 mm of Hg (@ 20°C)
Vapor Density	8 (Air = 1)
Volatility	100% (v/v).
Odor Threshold	Not available.
Evaporation Rate	600 X slower compared to Ethylether
VOC	100 (%)
Viscosity	Not available
$Log K_{ow}$	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Not available.
Solubility in Water	Negligible.
Physical Chemical Comments	No additional remark.

Odor	Kerosine-like
Taste	Not available.
Color	Straw color.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	Extremely reactive or incompatible with strong oxidizing agents.
Hazardous Decomposition Products	carbon monoxide & carbon dioxide
Hazardous Polymerization	No.

Continued on Next Page

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): 7500 mg/kg [Rat]. Acute oral toxicity (LD50): 9 ml/kg [Rat]. Acute dermal toxicity (LD50): >3160 mg/kg [Rabbit].
Chronic Effects on Humans	CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by IARC. Lifetime skin painting studies conducted by the American Petroleum Institute and others have shown that similar products boiling between 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined. The substance is toxic to the nervous system, gastro-intestinal tract, upper respiratory tract, skin, eyes.
Other Toxic Effects on Humans	Very hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).
Special Remarks on Toxicity to Animals	Prolonged or repeated inhalation of highly concentrated petroleum distillates caused liver tumors in mice and kidney damage and tumors in male rats. Skin paint with distillates (boiling range 100-700 F) applied repeatedly and never washed off can cause skin cancer. Chronic exposure to unfiltered diesel exhaust produced tumors in lungs and lymphomas in mice and rats.
Special Remarks on Chronic Effects on Humans	NIOSH recommends that whole diesel exhaust be regarded as a potential carcinogen.
Special Remarks on Other Toxic Effects on Humans	No additional remark.

Section 12. Ecological Information

Ecotoxicity	Aquatic toxicity: 2990 ppm/24 hr (kerosene). Does not bioconcentrate in the food chain (kerosene).
BOD5 and COD	53%, 5 days (kerosene)
Biodegradable/OECD	Not available.
Mobility	Not available.
	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Information	Recover free liquid. Transfer to an approved disposal area in accordance with federal, state, and local regulations.
Waste Stream	Not available.
Consult your local or regional authorities.	

Section 14. Transport Information

DOT Classification	DOT CLASS 3: Flammable liquid. 
	Flammable liquids n.o.s.
	NA1993
	Not available.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	No additional remark.
TDG Classification	TDG CLASS 3: Flammable liquid
ADR/RID Classification	ADR CLASS 3: Flammable liquid A.
IMO/IMDG Classification	IMDG CLASS 3.1: Flammable liquid (Low flash point).
ICAO/IATA Classification	IATA CLASS 3: Flammable liquid.

Continued on Next Page

Section 15. Regulatory information

HCS Classification	HCS CLASS: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).
U.S. Federal Regulations	TSCA inventory: Diesel Oil #2 SARA 313 toxic chemical notification and release reporting: No products were found Clean water act (CWA) 307: No products were found. Clean water act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
International Regulations	
WHMIS (Canada)	WHMIS CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
	CEPA DSL: Diesel Oil #2
EINECS	Not available.
DSCL (EEC)	R36/38- Irritating to eyes and skin.
International Lists	No products were found.
State Regulations	Pennsylvania RTK: Diesel Oil #2 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: No products were found.

Section 16. Other information

Label requirements	COMBUSTIBLE LIQUID AND VAPOR. Vapor may cause fire. MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES DAMAGE.

Hazardous Material Information System (U.S.A.)

*	1
Fire Hazard	2
Reactivity	0
Personal Protection	

National Fire Protection Association (U.S.A.)

References	LOLI AND TOMES (Vol 37: RTECS, CHRIS, & NEW JERSEY HAZARDOUS SUBSTANCE FACT SHEETS)
Other Special Considerations	No additional remark.

Validated by Larry Myers on 3/25/99.

Verified by Paul Bradley.

Printed 9/13/99.

Chemtrec: (800) 424-9300
FINA: (800) 322-FINA

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 00023

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Key Yard
2. Management Facility Destination Tierra LandFarm	6. Transporter Key Energy
3. Address of Facility Operator #420 CR 3100 Aztec	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Key Energy yard	5651 Hwy 64 Farmington NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

(B.) All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Contaminated Soil From diesel Fuel spill

MAR 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 1 cy Known Volume (to be entered by the operator at the end of the haul) 1 cy

SIGNATURE: David Bonawitz TITLE: LandFarm Manager DATE:
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: David Bonawitz TELEPHONE NO. 3-20-00

(This space for State Use)

APPROVED BY: Denny G. Foust TITLE: Geologist DATE: 3/29/00

APPROVED BY: Martyne J. Kelly TITLE: Environmental Geologist DATE: 3-22-00

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Key Energy Services, Inc. Four Corners Division 5651 US Highway 64 Farmington NM, 84701	Tierra Environmental Company, Inc. Crouch Mesa Landfarm 420 C.R. 3100 Aztec, NM 87401
3. Originating Site: (name):	**Location of the Waste (Street Address &/or ULSTR):**
Key Energy Services, Inc. Farmington Facility 5651 US Highway 64 Farmington NM, 84701 (Attach list of origination sites as appropriate)	Key Energy Services, Inc. 5651 US Highway 64 Farmington NM, 84701
4. Source and Description of Waste Contaminated dirt from diesel spill from trucks.	

I, **Bob James**, representative for **Key Energy Services, Four Corners Division** do hereby certify that, according to the Resource Conservation and Recovery Act (RECA) and Environmental Protection Agency's July 1988, regulatory determination, the above described waste is:
(Check appropriate classification)

____ **EXEMPT** oilfield waste

__X__ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification.

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

__X__ MSDS Information

_____ RCRA Hazardous Waste Analysis

_____ Chain of Custody

_____ Other (description):

Name (Original Signature): _____

Title: Farmington Shop Manager

Date: March 18, 2000

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Trade name	**Diesel #2 Oil**
Supplier	Fina Oil and Chemical Co P.O. Box 2159 Dallas, TX 75221
Synonym	Fuel Oil # 2, Furnace Oil #2
MSDS Name	Diesel Oil #2
Chemical Family	Hydrocarbon Mixture
CAS Registry Number	68476-34-6
Threshold Limit Value	TWA: 100 (mg/m³) from NIOSH
Manufacturer	Fina Oil and Chemical Co P.O. Box 849 Port Arthur, TX 77641-0849

Code	000456
MSDS#	P33
Validation Date	3/25/99
Print Date	9/13/99
Responsible for Preparation	Larry Myers

In Case of Emergency	Chemtrec: (800) 424-9300 FINA: (800) 322-FINA
Technical Information	Port Arthur: (409) 962-4421

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits
1) Diesel Oil #2	68476-34-6	100	TWA: 100 (mg/m³) from NIOSH

Section 3. Hazards Identification

Physical State and Appearance	Liquid.
Emergency Overview	COMBUSTIBLE LIQUID AND VAPOR. Vapor may cause fire. MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES DAMAGE. MAY CAUSE EYE IRRITATION. Causes severe skin irritation.
Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Potential Acute Health Effects	
Eyes	Hazardous in case of eye contact (irritant).
Skin	Sensitization of the product: Not available. Very hazardous in case of skin contact (irritant). Non-corrosive for skin. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Inhalation	Intoxication, dizziness, drowsiness, headache and nausea, weakness and fatigue. Burning sensation in chest, possible asphyxiation and unconsciousness.
Ingestion	Local irritation, burning sensation in mouth, esophagus, and stomach. Vomiting, belching, and diarrhea with blood-tinged feces. Drowsiness. The greatest hazard of ingestion is accidental PULMONARY ASPIRATION, which can cause potentially fatal CHEMICAL PNEUMONITIS and NONCARDIOGENIC PULMONARY EDEMA.
Potential Chronic Health Effects	Signs and symptoms of chronic exposure are similar to those of acute exposure. Skin: dermatitis. **CARCINOGENIC EFFECTS**: 3 (Not classifiable for human.) by IARC. Lifetime skin painting studies conducted by the American Petroleum Institute and others have shown that similar products boiling between 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined. **MUTAGENIC EFFECTS**: Not available. **TERATOGENIC EFFECTS**: Not available.
Medical Conditions Aggravated by Overexposure	Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
Overexposure /Signs/Symptoms	Not available.
See Toxicological Information (section 11)	

Continued on Next Page

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. Flush with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. DO NOT use an eye ointment. Seek medical attention.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Ingestion	DO NOT induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Notes to Physician	May administer activated charcoal or gastric lavage. Emesis may result in chemical pneumonitis (#2 Diesel). Consider chest x-ray after acute overexposure and perform kidney function tests if symptoms develop or overexposure is suspected (kerosene).

Section 5. Fire Fighting Measures

Flammability of the Product	Combustible.
Auto-ignition Temperature	>204°C (399.2°F)
Flash Points	CLOSED CUP: 54.4°C (130°F). (Pensky-Martens.).
Flammable Limits	LOWER: 0.4% UPPER: 6%
Products of Combustion	carbon oxides (CO, CO2) sulfur oxides (SO2, SO3...)
Fire Hazards in Presence of Various Substances	Flammable in presence of open flames and sparks, of heat.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of static discharge: Expected. Risks of explosion of the product in presence of mechanical impact: Not expected. No specific information is available in our database regarding the product's risks of explosion in the presence of various materials.
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder, CO_2, and halon. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.
Protective Clothing (Fire)	Wear MSHA/NIOSH approved self-contained breathing apparatus or equivalent and full protective gear (Bunker gear).
Special Remarks on Fire Hazards	Combustible. Avoid inhalation of vapors. May generate dense smoke while burning.
Special Remarks on Explosion Hazards	May form explosive mixtures with air. Container may explode in fire. Flashback along vapor trail may occur. May explode if ignited in an enclosed area.

Section 6. Accidental Release Measures

Small Spill and Leak	Warn personnel to move away. Eliminate ignition sources and ventilate area. Absorb with an inert material and place in an appropriate waste disposal container.
Large Spill and Leak	Combustible material. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

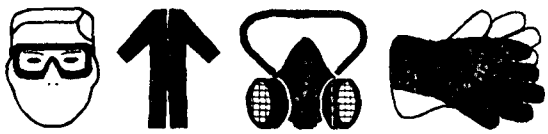
Section 7. Handling and Storage

Handling	Do not breathe gas, fumes, vapor or spray. Keep away from incompatibles such as oxidizing agents. Keep away from sources of ignition.
Storage	Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition. Keep away from incompatibles as oxidizers.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
Eyes	Safety glasses. Splash goggles.
Body	Flame retardant clothing covering the entire body.
Respiratory	Use a MSHA/NIOSH approved respirator or equivalent at high concentrations.

Continued on Next Page

	Hands Chemical resistant gloves if contact is possible.
	Feet Not applicable.
Protective Clothing (Pictograms)	
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Product Name	Exposure Limits
1) Diesel Oil #2	TWA: 100 (mg/m³) from NIOSH

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
Molecular Formula	Not applicable.
pH (1% Soln/Water)	Not applicable.
Boiling/Condensation Point	160 to 354.4°C (320 to 670°F)
Melting/Freezing Point	Not available.
Critical Temperature	Not available.
Specific Gravity	0.87 (Water = 1)
Vapor Pressure	1.6 mm of Hg (@ 20°C)
Vapor Density	8 (Air = 1)
Volatility	100% (v/v).
Odor Threshold	Not available.
Evaporation Rate	600 X slower compared to Ethylether
VOC	100 (%)
Viscosity	Not available.
LogK$_{ow}$	Not available.
Ionicity (in Water)	Not available.
Dispersion Properties	Not available.
Solubility in Water	Negligible.
Physical Chemical Comments	No additional remark.

Odor	Kerosine-like
Taste	Not available.
Color	Straw color.

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Conditions of Instability	No additional remark.
Incompatibility with Various Substances	Extremely reactive or incompatible with strong oxidizing agents.
Hazardous Decomposition Products	carbon monoxide & carbon dioxide
Hazardous Polymerization	No.

Continued on Next Page

Section 11. Toxicological Information

Toxicity to Animals	Acute oral toxicity (LD50): 7500 mg/kg [Rat]. Acute oral toxicity (LD50): 9 ml/kg [Rat]. Acute dermal toxicity (LD50): >3160 mg/kg [Rabbit].
Chronic Effects on Humans	**CARCINOGENIC EFFECTS**: 3 (Not classifiable for human.) by IARC. Lifetime skin painting studies conducted by the American Petroleum Institute and others have shown that similar products boiling between 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinogenic response was weak to moderate with a relatively long latent period. The implications of these results for humans have not been determined. The substance is toxic to the nervous system, gastro-intestinal tract, upper respiratory tract, skin, eyes.
Other Toxic Effects on Humans	Very hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant).
Special Remarks on Toxicity to Animals	Prolonged or repeated inhalation of hichly concentrated petroleum distallates caused liver tumors in mice and kidney damaage and tumors in male rats. Skin paint with distillates (boiling range 100-700 F) applied repeatedly and never washed off can cause skin cancer. Chronic exposure to unfiltered diesel exhaust produced tumors in lungs and lymphomas in mice and rats.
Special Remarks on Chronic Effects on Humans	NIOSH recommends that whole diesel exhaust be regarded as a potential carcinogen.
Special Remarks on Other Toxic Effects on Humans	No additional remark.

Section 12. Ecological Information

Ecotoxicity	Aquatic toxicity: 2990 ppm/24 hr (kerosene). Does not bioconcentrate in the food chain (kerosene).
BOD5 and COD	53%, 5 days (kerosene)
Biodegradable/OECD	Not available.
Mobility	Not available.
	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	No additional remark.

Section 13. Disposal Considerations

Waste Information	Recover free liquid. Transfer to an approved disposal area in accordance with federal, state, and local regulations.
Waste Stream	Not available.

Consult your local or regional authorities.

Section 14. Transport Information

DOT Classification	DOT CLASS 3: Flammable liquid. 
	Flammable liquids n.o.s.
	NA1993
	Not available.
Marine Pollutant	Not available.
Hazardous Substances Reportable Quantity	Not available.
Special Provisions for Transport	No additional remark.
TDG Classification	TDG CLASS 3: Flammable liquid.
ADR/RID Classification	ADR CLASS 3: Flammable liquid A.
IMO/IMDG Classification	IMDG CLASS 3.1: Flammable liquid (Low flash point).
ICAO/IATA Classification	IATA CLASS 3: Flammable liquid.

Continued on Next Page

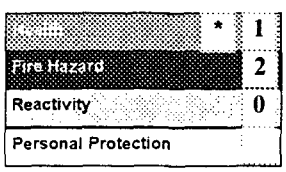
Section 15. Regulatory Information

HCS Classification	HCS CLASS: Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F).
U.S. Federal Regulations	TSCA inventory: **Diesel Oil #2** SARA 313 toxic chemical notification and release reporting: No products were found. Clean water act (CWA) 307: No products were found. Clean water act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
International Regulations	
WHMIS (Canada)	WHMIS CLASS B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).
	CEPA DSL: Diesel Oil #2
EINECS	Not available.
DSCL (EEC)	*R36/38- Irritating to eyes and skin.*
International Lists	No products were found.
State Regulations	Pennsylvania RTK: **Diesel Oil #2** California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: No products were found.

Section 16. Other Information

Label requirements	COMBUSTIBLE LIQUID AND VAPOR. Vapor may cause fire. MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES DAMAGE.

Hazardous Material Information System (U.S.A.)



National Fire Protection Association (U.S.A.)

References	LOLI AND TOMES (Vol 37: RTECS, CHRIS, & NEW JERSEY HAZARDOUS SUBSTANCE FACT SHEETS)
Other Special Considerations	No additional remark.

Validated by Larry Myers on 3/25/99.

Verified by Paul Bradley.

Printed 9/13/99.

Chemtrec: (800) 424-9300
FINA: (800) 322-FINA

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
MAR 16 2000
Environmental Bureau
Oil Conservation Division

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

Env. JN: 92132.02

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Denny Foust verbal 10.7.99 16115 Verbal Approval Received: Yes ☒ No ☐	4. Generator Halliburton
	5. Originating Site Truck Accident
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Envirotech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	NWNW Sec 25, T27N, R5W Rio Arriba County NM

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Cleanup of AQF-2 spilled @ Truck accident

Ridge above Cerrizo Wash

MAR 2000
RECEIVED
OIL CON. DIV
DIST. 3

Estimated Volume 36 cy cy Known Volume (to be entered by the operator at the end of the haul) ______ cy

SIGNATURE: Harlan M Brown TITLE: Landfarm Manager DATE: 03.13.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: ______ TITLE: ______ DATE: ______

APPROVED BY: Martyne J. Kieling TITLE: Environmental Geologist DATE: 3-17-00

Ranger Forest
verbal
10.7.99
16:15

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178 Fax (505)334-6170

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Halliburton Energy Services 4109 E. Main St. Farmington, NM 87401	Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name): NWNW Sec 25, T27N R5W Rio Arriba County, NM. Attach list of originating sites as appropriate	Location of the Waste (Street address &/or ULSTR):
4. Source and Description of Waste Cleanup of AQF-2 spilled @ Truck accident.	

I, ROBERT SMITH (Print Name) representative for:
HALLIBURTON ENERGY SERVICE do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

X **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste the following documentation is attached (check appropriate items):

X MSDS Information
___ RCRA Hazardous Waste Analysis
___ Chain of Custody
___ Other (description):

This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material **(NORM)** pursuant to 20 NMAC 3.1 subpart 1403.C and D.

Name (Original Signature): ROBERT SMITH

Title: HSE ADVISOR

Date: 03-10-2000

Duane Foust
Duncan
10.7.99
16:15

HALLIBURTON®

MATERIAL SAFETY DATA SHEET DATE: 07-22-98
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-9
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 580/251-4689 OR 580/251-3569
AFTER HOURS: 580/251-3760

* * * * * * * * * * * SECTION I - PRODUCT DESCRIPTION * * * * * * * * * * * *

CHEMICAL CODE: AQF-2 FOAMING AGENT - HAL-TANK PART NUMBER: 51600519
PKG QTY: 330 GALLON TANK APPLICATION: FOAMING AGENT
SERVICE USED: STIMULATION

* * * * * * * * * * * SECTION II - COMPONENT INFORMATION * * * * * * * * * * *

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
ETHYLENE GLYCOL MONOBUTYL ETHER	11-30 %	25 PPM S	25 PPM S

* * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * *

PROPERTY	MEASUREMENT
APPEARANCE	CLEAR LIGHT YELLOW LIQUID
ODOR	BLAND
SPECIFIC GRAVITY (H2O=1)	1.038
BULK DENSITY	8.65 LB/GAL
PH	6.5-8.5 FOR 10% SOL.
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	SOLUBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	73-78
EVAPORATION RATE(BUTYL ACETATE=1)	N/D
VAPOR DENSITY	N/D
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/D
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

* * * * * * * * * * SECTION IV - FIRE AND EXPLOSION DATA * * * * * * * * * * *

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE
FLASH POINT 142 F / 61 C FLASH MTHD PMCC
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (% BY VOLUME) LOWER N/D UPPER N/D

++

EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND SULFUR OXIDES.

* * * * * * * * * * * * SECTION V - HEALTH HAZARD DATA * * * * * * * * * * * *

CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE NOT REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MODERATE IRRITATION.
SKIN:
MAY BE ABSORBED THROUGH SKIN.
CONTACT MAY CAUSE SKIN IRRITATION.
INHALATION:
HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.
CHRONIC EFFECTS:
CONTAINS ETHYLENE GLYCOL MONOBUTYL ETHER. ANIMAL STUDIES INDICATE FETAL AND TESTICULAR TOXICITY WITH RELATED GLYCOL ETHERS.
OTHER SYMPTOMS AFFECTED:
BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS. BREATHING OF VAPOR AND/OR MISTS MAY AGGRAVATE ASTHMA AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.
---------- EMERGENCY AND FIRST AID PROCEDURES ----------
EYE:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER.
INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

* * * * * * * * * * * * SECTION VI - REACTIVITY DATA * * * * * * * * * * * *

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
SULFUR DIOXIDE, CARBON DIOXIDE AND CARBON MONOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AND STOP LEAK WHERE SAFE. CONTAIN AND ABSORB SPILL WITH AN INERT MATERIAL. SCOOP UP AND REMOVE.
WASTE DISPOSAL METHOD:
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT ABSORBED MATERIAL TO SANITARY LANDFILL.

* * * * * * * * * SECTION VIII - SPECIAL PROTECTION INFORMATION * * * * * * *

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
ORGANIC VAPOR CARTRIDGE RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.
PROTECTIVE GLOVES:
IMPERVIOUS RUBBER GLOVES.
EYE PROTECTION:
GOGGLES AND/OR FACE SHIELD.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

* * * * * * * * * * * * SECTION IX - SPECIAL PRECAUTIONS * * * * * * * * * * *

PRECAUTIONARY LABELING AQF-2 FOAMING AGENT - HAL-TANK 516.005190

WARNING!
MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.
MAY CAUSE EYE AND SKIN IRRITATION.
COMBUSTIBLE!
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
STORE IN A COOL WELL VENTILATED LOCATION.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

* * * * * * * * * * SECTION X - TRANSPORTATION INFORMATION * * * * * * * * * *

DOT SHIPPING DESCRIPTION:
COMBUSTIBLE LIQUID, N.O.S. - COMBUSTIBLE LIQUID - NA1993 - III
(CONTAINS ETHYLENE GLYCOL MONOBUTYL ETHER)

IATA SHIPPING DESCRIPTION:
NOT RESTRICTED

IMO SHIPPING DESCRIPTION:
NOT RESTRICTED

CAN SHIPPING DESCRIPTION:
NOT RESTRICTED

ADR SHIPPING DESCRIPTION:
NOT RESTRICTED

* * * * * * * * * * SECTION XI - ENVIRONMENTAL EVALUATION * * * * * * * * * *

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N MIXTURE OR PURE MATERIAL: MIX

B. EPA - CERCLA/SUPERFUND, 40 CFR 302 (REPORTABLE SPILL QUANTITY)
N/A

C. EPA - SARA TITLE III, CFR 355 (EXTREMELY HAZARDOUS SUBSTANCES)
PRODUCT CONTAINS NO EXTREMELY HAZARDOUS COMPONENTS

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
ETHYLENE GLYCOL MONOBUTYL111-76-2 11-30 %

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACOIN N/D NPR NE DRSM NE

F. EXTRACTION METAL AND TRACE CONTENTS

ARSENIC:	IN LIQUID > 5 MG/L,	SOLID > 500 MG/KG	NOT EVALUATED
BARIUM :	IN LIQUID > 100 MG/L,	SOLID > 10000 MG/KG	NOT EVALUATED
CADIUM:	IN LIQUID > 1 MG/L,	SOLID > 100 MG/KG	NOT EVALUATED
CHROMIUM(VI):	IN LIQUID > 5 MG/L,	SOLID > 500 MG/KG	NOT EVALUATED
CHROMIUM(III):	IN LIQUID > 560 MG/L,	SOLID > 2500 MG/KG	NOT EVALUATED
LEAD:	IN LIQUID > 5 MG/L,	SOLID > 1000 MG/KG	NOT EVALUATED
MERCURY:	IN LIQUID > 0.2 MG/L,	SOLID > 2000 MG/KG	NOT EVALUATED
SELENIUM:	IN LIQUID > 1 MG/L,	SOLID > 100 MG/KG	NOT EVALUATED
SILVER:	IN LIQUID > 5 MG/L,	SOLID > 500 MG/KG	NOT EVALUATED
ANTIMONY:	IN LIQUID > 15 MG/L,	SOLID > 500 MG/KG	NOT EVALUATED
BERYLLIUM:	IN LIQUID > 0.75 MG/L,	SOLID > 75 MG/KG	NOT EVALUATED
COBALT:	IN LIQUID > 80 MG/L,	SOLID > 8000 MG/KG	NOT EVALUATED
COPPER:	IN LIQUID > 25 MG/L,	SOLID > 2500 MG/KG	NOT EVALUATED
FLUORIDE:	IN LIQUID > 180 MG/L,	SOLID > 18000 MG/KG	NOT EVALUATED
MOLYBDENUM:	IN LIQUID > 350 MG/L,	SOLID > 3500 MG/KG	NOT EVALUATED

NICKEL:	IN LIQUID > 20 MG/L,	SOLID > 2000 MG/KG	NOT EVALUATED
THALLIUM:	IN LIQUID > 7 MG/L,	SOLID > 700 MG/KG	NOT EVALUATED
VANADIUM:	IN LIQUID > 24 MG/L,	SOLID > 2400 MG/KG	NOT EVALUATED
ZINC:	IN LIQUID > 250 MG/L,	SOLID > 5000 MG/KG	NOT EVALUATED
CYANIDE:	IN LIQUID > 250 MG/L,	SOLID > 250 MG/KG	NOT EVALUATED
H2S:	IN LIQUID > 500 MG/L,	SOLID > 500 MG/KG	NOT EVALUATED
ORGANO-TIN:	IN LIQUID OR	SOLID > 100 MG/L	NOT EVALUATED
ORGANO-PHOS:	IN LIQUID OR	SOLID > 100 MG/L	NOT EVALUATED
TIN:	IN LIQUID OR	SOLID > 100 MG/L	NOT EVALUATED
PERSISTENT ORGANO-HALOGENS:	IN LIQUID OR	SOLID > 100 MG/L	NOT EVALUATED

G. OTHER COMPONENTS

CONTAINS BENZENE	NO
CONTAINS TOLUENE	NO
CONTAINS XYLENE	NO
REPORTABLE SPILL QUANTITY FOR BENZENE, TOLUENE, XYLENE	NOT APPLICABLE

H. EPA - RCRA (HAZARDOUS WASTE), 40 CFR 261

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

I. UNITED KINGDOM - DOE (CHEMICAL NOTIFICATION SCHEME)

TOXICITY CATEGORY	NOT EVALUATED

* *

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1 Rio Brazos Road
[illegible], NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

RECEIVED
MAR 0 3 2000
Environmental Bureau
Oil Conservation Division
Env. JN: _____

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ — Denny Foust 2.22.00 2:10 P.M.	4. Generator WFS.
	5. Originating Site Horse Canyon Reboiler
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter SCAT
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mexico
7. Location of Material (Street Address or ULSTR)	Sec 26, T30N, R9W.

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

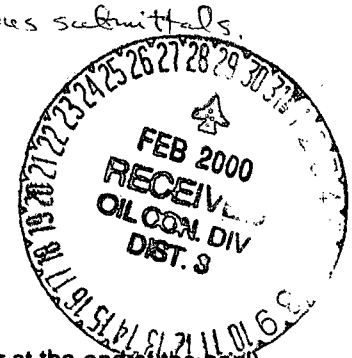
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Reboiler sludge removed to repair reboiler element

TCLP Attached ; MSDS provided previous submittals.



Estimated Volume ± 20 bbl cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Harlan M. Brown — TITLE: Landfarm Manager — DATE: 02.29.00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Harlan M. Brown — TELEPHONE NO. 505-632-0615

(This space for State Use)

APPROVED BY: Denny G. Foust — TITLE: Geologist — DATE: 3/01/2000

APPROVED BY: Martyne J. Kieling — TITLE: Environmental Geologist — DATE: 3/6/2000

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
WILLIAMS FIELD SERVICES CO 295 CHIPETA WAY SALT LAKE CITY, UT 84158	Envirotech Inc. 5796 U.S Hwy 64 Farmington, NM. 87401
3. Originating Site (name): Horse Canyon Reclaimer Sec 26 T30N R9W Attach list of originating sites as appropriate	**Location of the Waste (Street address &/or ULSTR):**
4. Source and Description of Waste Reboiler Sludge	

I, Bill Beevers (Print Name) representative for:

Williams do hereby certify that, according to the Resource Conservation and Recovery Act (RCRA) and Environmental Protection Agency's July, 1988, regulatory determination, the above described waste is: (Check appropriate classification)

___ **EXEMPT** oilfield waste

✓ **NON-EXEMPT** oilfield waste which is non-hazardous by characteristic analysis or by product identification

and that nothing has been added to the exempt or non-exempt non-hazardous waste defined above.

For **NON-EXEMPT** waste only the following documentation is attached (check appropriate items):

✓ MSDS Information
✓ RCRA Hazardous Waste Analysis
✓ Chain of Custody
___ Other (description):

Name (Original Signature): Bill Beevers

Title: Delvy Spec

Date: 2/22/00

Process Equipment & Service Company, Inc.

5680 U.S. HIGHWAY 64 • 87401 / P.O. BOX 929 • 87499
FARMINGTON, NEW MEXICO
PHONE: (505) 327-2222 • FAX: (505) 327-7550

NORM SURVEY DATA SHEET

Facility / location: Williams Horse Canyon Site Date: 2-23-2000

Meter Model: DOSIMETER 3007A Serial No: 9808-238

Detector Model: DOSIMETER 3012 Serial No: 201-887-7100

Calibration Date: 4-5-99

Battery Check: (X)

Background Radiation Level: 0.03 mR/hr

Description of material surveyed:
Waste Sludge for Evaporator
2" Pipe from Reboiler

Item / Material Surveyed:

Waste Material: 150 approx. gals
Equipment: mR/hr: 0.06

Manufacturer: _____

Serial No: _____

Description: _____

Job No: _____

Comments:

_____

_____

Survey Conducted by: Gary W Howe
(Print Name)

Gary W Howe
(Signature)

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

March 5, 1999

Mr. Bill Beevers
Williams Field Service, Inc.
Manzanares District
P.O. Box 215
Bloomfield, NM 87413

(505) 320-4642
Fax (505) 632-4781

Project No.: 97050
Job No. : 705004

Dear Mr. Beevers,

Enclosed are the analytical results for one liquid sample collected from the location designated as "Horse Canyon". One liquid sample identified as "Waste Water" was collected by WFS designated personnel on 02/22/99, and delivered to the Envirotech laboratory on 02/22/99 for Hazardous Waste Characterization analysis (Volatile and Semi-volatile Organics, Trace Metals, Reactivity, Corrosivity, and Ignitability).

The sample was documented on Envirotech Chain of Custody No. 6615 and assigned Laboratory No. E696 for tracking purposes. The sample was analyzed 02/22/99 through 03/05/99 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615. It has been our pleasure doing business with you and we hope you will consider Envirotech, Inc. for any of your future environmental contracting needs.

Respectfully submitted,
Envirotech, Inc.

Stacy W. Sendler
Environmental Scientist/Laboratory Manager

enclosure

SWS\sws\97050-04.lb2/wpd

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS

Client:	Williams Field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-03-99
Laboratory Number:	E696	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Analyzed:	03-03-99
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Analysis Needed:	TCLP metals

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Level (mg/L)
Arsenic	**0.0473**	**0.0001**	**5.0**
Barium	**0.219**	**0.001**	**21**
Cadmium	**0.0083**	**0.0001**	**0.11**
Chromium	**0.0963**	**0.0001**	**0.60**
Lead	**0.0211**	**0.0001**	**0.75**
Mercury	**ND**	**0.0001**	**0.025**
Selenium	**0.0171**	**0.0001**	**5.7**
Silver	**ND**	**0.0001**	**0.14**

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, December 1996.

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060, 7080, 7131, 7191, 7470, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA. December 1996.

Note: Regulatory Limits based on 40 CFR part 261 subpart C section 261.24, August 24, 1998.

Comments: **Horse Canyon.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client:	Williams Field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	02-26-99
Lab ID#:	E696	Date Sampled:	02-22-99
Sample Matrix:	Water	Date Received:	02-22-99
Preservative:	Cool	Date Analyzed:	02-23-99
Condition:	Cool and Intact	Chain of Custody:	6615

Parameter	Result	
IGNITABILITY:	**Negative**	
CORROSIVITY:	**Negative**	**pH = 6.87**
REACTIVITY:	**Negative**	

RCRA Hazardous Waste Criteria

Parameter	Hazardous Waste Criterion
IGNITABILITY:	Characteristic of Ignitability as defined by 40 CFR, Subpart C, Sec. 261.21. *(i.e. Sample ignition upon direct contact with flame or flash point < 60° C.)*
CORROSIVITY:	Characteristic of Corrosivity as defined by 40 CFR, Subpart C, Sec. 261.22. *(i.e. pH less than or equal to 2.0 or pH greater than or equal to 12.5)*
REACTIVITY:	Characteristic of Reactivity as defined by 40 CFR, Subpart C, Sec. 261.23. *(i.e. Violent reaction with water, strong base, strong acid, or the generation of Sulfide or Cyanide gases at STP with pH between 2.0 and 12.5)*
Reference:	40 CFR part 261 Subpart C sections 261.21 - 261.23, July 1, 1992.
Comments:	**Horse Canyon.**

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS

Client:	Williams Field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-01-99
Laboratory Number:	E696	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	02-26-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	0.637	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	0.303	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	0.0035	0.0003	0.5
Tetrachloroethene	0.0012	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	98%
	Bromofluorobenzene	99%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **Horse Canyon.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS

Client:	Williams field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-01-99
Laboratory Number:	E696	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-01-99
Condition:	Cool & Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	4.53	0.020	200
p,m-Cresol	6.08	0.040	200
2,4,6-Trichlorophenol	1.05	0.020	2.0
2,4,5-Trichlorophenol	17.1	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **Horse Canyon.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics

Client:	Williams field Service	Project #:	705004
Sample ID:	Waste Water	Date Reported:	03-01-99
Laboratory Number:	E696	Date Sampled:	02-22-99
Chain of Custody:	6615	Date Received:	02-22-99
Sample Matrix:	Water	Date Extracted:	N/A
Preservative:	Cool	Date Analyzed:	03-01-99
Condition:	Cool and Intact	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**0.236**	**0.020**	**5.0**
Hexachloroethane	**0.350**	**0.020**	**3.0**
Nitrobenzene	**0.207**	**0.020**	**2.0**
Hexachlorobutadiene	**0.430**	**0.020**	**0.5**
2,4-Dinitrotoluene	**0.076**	**0.020**	**0.13**
HexachloroBenzene	**0.100**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**100%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **Horse Canyon.**

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Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

QUALITY ASSURANCE / QUALITY CONTROL

DOCUMENTATION

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-01-99
Laboratory Number:	02-26-TCV Blank	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-99
Condition:	N/A	Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	100%
	Bromofluorobenzene	100%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-01-99
Laboratory Number:	02-22-TV-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	02-26-99
Condition:	N/A	Date Extracted:	02-22-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limits (mg/L)
Vinyl Chloride	ND	0.0001	0.2
1,1-Dichloroethene	ND	0.0001	0.7
2-Butanone (MEK)	ND	0.0001	200
Chloroform	ND	0.0001	6.0
Carbon Tetrachloride	ND	0.0001	0.5
Benzene	ND	0.0001	0.5
1,2-Dichloroethane	ND	0.0001	0.5
Trichloroethene	ND	0.0003	0.5
Tetrachloroethene	ND	0.0005	0.7
Chlorobenzene	ND	0.0003	100
1,4-Dichlorobenzene	ND	0.0002	7.5

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	Trifluorotoluene	99%
	Bromofluorobenzene	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-01-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-26-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Duplicate Sample Result (mg/L)	Detection Limits (mg/L)	Percent Difference
Vinyl Chloride	ND	ND	0.0001	0.0%
1,1-Dichloroethene	ND	ND	0.0001	0.0%
2-Butanone (MEK)	ND	ND	0.0001	0.0%
Chloroform	ND	ND	0.0001	0.0%
Carbon Tetrachloride	ND	ND	0.0001	0.0%
Benzene	ND	ND	0.0001	0.0%
1,2-Dichloroethane	ND	ND	0.0001	0.0%
Trichloroethene	ND	ND	0.0003	0.0%
Tetrachloroethene	ND	ND	0.0005	0.0%
Chlorobenzene	ND	ND	0.0003	0.0%
1,4-Dichlorobenzene	ND	ND	0.0002	0.0%

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHODS 8010/8020
AROMATIC / HALOGENATED
VOLATILE ORGANICS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Spike	Date Reported:	03-01-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP	Date Analyzed:	02-26-99
Condition:	N/A	Date Extracted:	N/A

Parameter	Sample Result (mg/L)	Spike Added (mg/L)	Spiked Sample Result (mg/L)	Det. Limit (mg/L)	Percent Recovery	SW-846 % Rec. Accept. Range
Vinyl Chloride	ND	0.050	0.0495	0.0001	99%	28-163
1,1-Dichloroethene	ND	0.050	0.0494	0.0001	99%	43-143
2-Butanone (MEK)	ND	0.050	0.0495	0.0001	99%	47-132
Chloroform	ND	0.050	0.0498	0.0001	100%	49-133
Carbon Tetrachloride	ND	0.050	0.0491	0.0001	98%	43-143
Benzene	ND	0.050	0.0498	0.0001	100%	39-150
1,2-Dichloroethane	ND	0.050	0.0494	0.0001	99%	51-147
Trichloroethene	ND	0.050	0.0494	0.0003	99%	35-146
Tetrachloroethene	ND	0.050	0.0494	0.0005	99%	26-162
Chlorobenzene	ND	0.050	0.0494	0.0003	99%	38-150
1,4-Dichlorobenzene	ND	0.050	0.0494	0.0002	99%	42-143

ND - Parameter not detected at the stated detection limit.

References:
Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 5030, Purge-and-Trap, SW-846, USEPA, July 1992.
Method 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994.
Method 8020, Aromatic Volatile Organics, SW-846, USEPA, Sept. 1994.

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report
Laboratory Blank

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-01-99
Laboratory Number:	03-01-TCA-Blank	Date Sampled:	N/A
Sample Matrix:	2-Propanol	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-01-99
Condition:	N/A	Analysis Requested:	TCLP

Analytical Results Parameter	Concentration (mg/L)	Detection Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-fluorophenol	98 %
	2,4,6-tribromophenol	99 %

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

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

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

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-01-99
Laboratory Number:	02-22-TCA-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extraction	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-22-99
Condition:	Cool & Intact	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
o-Cresol	ND	0.020	200
p,m-Cresol	ND	0.040	200
2,4,6-Trichlorophenol	ND	0.020	2.0
2,4,5-Trichlorophenol	ND	0.020	400
Pentachlorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	2-Fluorophenol	98%
	2,4,6-Tribromophenol	99%

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

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

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

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8040
PHENOLS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-01-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	Cool	Date Extracted:	N/A
Condition:	Cool & Intact	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Detection Limit (mg/L)	Percent Difference
o-Cresol	ND	ND	0.020	0.0%
p,m-Cresol	ND	ND	0.040	0.0%
2,4,6-Trichlorophenol	0.708	0.701	0.020	1.0%
2,4,5-Trichlorophenol	0.222	0.219	0.020	1.1%
Pentachlorophenol	0.091	0.090	0.020	0.8%

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria:	Parameter	Maximum Difference
	8040 Compounds	30.0%

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

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

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

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Laboratory Blank	Date Reported:	03-01-99
Laboratory Number:	03-01-TBN-Blank	Date Sampled:	N/A
Sample Matrix:	Hexane	Date Received:	N/A
Preservative:	N/A	Date Extracted:	N/A
Condition:	N/A	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	**ND**	**0.020**	**5.0**
Hexachloroethane	**ND**	**0.020**	**3.0**
Nitrobenzene	**ND**	**0.020**	**2.0**
Hexachlorobutadiene	**ND**	**0.020**	**0.5**
2,4-Dinitrotoluene	**ND**	**0.020**	**0.13**
HexachloroBenzene	**ND**	**0.020**	**0.13**

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	**99%**

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	Method Blank	Date Reported:	03-01-99
Laboratory Number:	02-22-BN-MB	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	Cool	Date Extracted:	02-22-99
Condition:	Cool and Intact	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Concentration (mg/L)	Det. Limit (mg/L)	Regulatory Limit (mg/L)
Pyridine	ND	0.020	5.0
Hexachloroethane	ND	0.020	3.0
Nitrobenzene	ND	0.020	2.0
Hexachlorobutadiene	ND	0.020	0.5
2,4-Dinitrotoluene	ND	0.020	0.13
HexachloroBenzene	ND	0.020	0.13

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Percent Recovery
	2-fluorobiphenyl	98%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8090
Nitroaromatics and Cyclic Ketones
TCLP Base/Neutral Organics
QA/QC Matrix Duplicate Report

Client:	QA/QC	Project #:	N/A
Sample ID:	Matrix Duplicate	Date Reported:	03-01-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Preservative:	N/A	Date Extracted:	02-22-99
Condition:	N/A	Date Analyzed:	03-01-99
		Analysis Requested:	TCLP

Parameter	Sample Result (mg/L)	Duplicate Result (mg/L)	Percent Difference	Det. Limit (mg/L)
Pyridine	ND	ND	0.0%	0.020
Hexachloroethane	0.056	0.055	1.0%	0.020
Nitrobenzene	ND	ND	0.0%	0.020
Hexachlorobutadiene	ND	ND	0.0%	0.020
2,4-Dinitrotoluene	ND	ND	0.0%	0.020
HexachloroBenzene	ND	ND	0.0%	0.020

ND - Parameter not detected at the stated detection limit.

QA/QC Acceptance Criteria	Parameter	Maximum Difference
	8090 Compounds	30%

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, July 1992.
Method 3510, Separatory Funnel Liquid-Liquid Extraction, SW-846, USEPA, July 1992.
Method 8090, Nitroaromatics and Cyclic Ketones, SW-846, USEPA, Sept. 1986.

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

Comments: **QA/QC for samples E695 - E696.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 1311
TOXICITY CHARACTERISTIC LEACHING PROCEDURE
TRACE METAL ANALYSIS
Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-03-TCM QA/QC	Date Reported:	03-03-99
Laboratory Number:	E695	Date Sampled:	N/A
Sample Matrix:	TCLP Extract	Date Received:	N/A
Analysis Requested:	TCLP Metals	Date Analyzed:	03-03-99
Condition:	N/A	Date Extracted:	N/A

Blank & Duplicate Conc. (mg/L)	Instrument Blank	Method Blank	Detection Limit	Sample	Duplicate	% Diff.	Acceptance Range
Arsenic	ND	ND	0.0001	0.0437	0.0435	0.5%	0% - 30%
Barium	ND	ND	0.001	0.891	0.896	0.6%	0% - 30%
Cadmium	ND	ND	0.0001	0.0173	0.0174	0.6%	0% - 30%
Chromium	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Lead	ND	ND	0.0001	0.0149	0.0150	0.7%	0% - 30%
Mercury	ND	ND	0.0001	ND	ND	0.0%	0% - 30%
Selenium	ND	ND	0.0001	0.0315	0.0312	1.0%	0% - 30%
Silver	ND	ND	0.0001	ND	ND	0.0%	0% - 30%

Spike Conc. (mg/L)	Spike Added	Sample	Spiked Sample	Percent Recovery	Acceptance Range
Arsenic	0.1000	0.0437	0.144	100.1%	80% - 120%
Barium	1.000	0.891	1.89	99.8%	80% - 120%
Cadmium	0.0500	0.0173	0.0672	99.9%	80% - 120%
Chromium	0.0500	ND	0.0498	99.6%	80% - 120%
Lead	0.1000	0.0149	0.115	99.9%	80% - 120%
Mercury	0.0250	ND	0.0249	99.6%	80% - 120%
Selenium	0.1000	0.0315	0.131	99.6%	80% - 120%
Silver	0.0500	ND	0.0498	99.6%	80% - 120%

ND - Parameter not detected at the stated detection limit.

References: Method 1311, Toxicity Characteristic Leaching Procedure, SW-846, USEPA, Dec. 1996

Methods 3010, 3020, Acid Digestion of Aqueous Samples and Extracts for Total Metals, SW-846, USEPA, December 1996.

Methods 7060B, 7081, 7131A, 7191, 7470A, 7421, 7740, 7761 Analysis of Metals by GFAA and Cold Vapor Techniques, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples E695, E696 and E755.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

6615

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
Williams Field Service	Horse Canyon	

Sampler:	Client No.
Bill Beevers	97050-04

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TCLP w/o Hg						Remarks
Waste Water	2/22/99	1330	E696	Liquid	8	✓						

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Bill Beevers	2/22/99	1440	Adrienne L. Ojeman	2.22.99	144
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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

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

MATERIAL SAFETY DATA SHEET
RIETHYLENE GLYCOL

1	HMIS HEALTH
1	HMIS FLAMMABILITY
0	HMIS REACTIVITY
B	HMIS PERSONAL PROTECTION

SECTION I - IDENTIFICATION

TRIBUTED BY.....	COASTAL CHEMICAL COMPANY,INC P.O. BOX 820 ABBEVILLE, LA 70511-0820 (318) 893-3862
ERGENCY PHONE NUMBER...	(318) 893-3862 OR CHEMTREC (800) 424-9300
FECTIVE DATE.....	02/26/90
NUFACTURER'S NAME.....	UNION CARBIDE DOW CHEMICAL TEXACO OXY-PETROCHEMICAL
ADE NAME.....	TRIETHYLENE GLYCOL
EMICAL FAMILY.....	POLYETHYLENE GLYCOL
S NUMBER.....	112-27-6
EMICAL FORMULA.....	C6H1404

SECTION II - HAZARDOUS INGREDIENTS

ZARDOUS COMPONENTS	%	TLV (Units)	PROD. CAS #
THYLENE COL	99	None Established	112-27-6

SECTION III - PHYSICAL DATA

EEZING POINT (F).....	-7 Deg. C., 19 Deg. F.
POR PRESSURE (mm Hg)...	<1 mm
POR DENSITY (Air=1)....	5.2, air = 1
LUBILITY IN H2O.....	Completely soluble in all proportions
PEARANCE/ODOR.....	Clear, colorless, viscous liquid with slight odor.
ECIFIC GRAVITY (H2O=1).	1.1 @ 77 Deg. F., 25/25 Deg.C
.....	N/D

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

SH POINT.....	350 Deg. F.
WER FLAME LIMIT.....	0.9
HER FLAME LIMIT.....	9.2
TINGUISH MEDIA.....	Use water fog or spray, Alcohol Foam, Dry Powder, Carbon Dioxide (CO2).
USUAL FIRE HAZARD.....	Containers may explode from internal pressure if confined to fire. Cool with water. Keep unnecessary people away. Approach fire from upwind side. Avoid breathing smoke ,fumes, mist or vapors on the downwind side.

MATERIAL SAFETY DATA SHEET
DIETHYLENE GLYCOL

SECTION V - HEALTH HAZARD DATA

HOLD LIMIT VALUE..... Recommended 5 MG/M3 based on oil mist.

UTES OF ENTRY	INHALATION?	SKIN?	INGESTION?
	Irritant	Mild irritant	Irritant

ALTH HAZARDS..... ACUTE: Vapors or liquid may be irritating to skin, eyes, or mucous membranes. Avoid inhalation or skin/eye contact.

RCINOGENICITY	NTP?	IARC MONOGRAPHS?	OSHA REGULATED
	NO	NO	NO

ER EXPOSURE EFFECTS.... Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact.

RST AID PROCEDURES..... In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. If swallowed, do not induce vomiting, get immediate medical attention. If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

SECTION VI - REACTIVITY DATA

..ICAL STABILITY..... Product is stable
NDITIONS TO AVOID..... Heat may cause internal pressure which could rupture container.
COMPATIBLE MATERIALS... Oxidizers or Oxidizing Materials.
COMPOSITION PRODUCTS... From fire; Smoke, Carbon dioxide, & Carbon Monoxide.
ZARDOUS POLYMERIZATION. Will not occur
LYMERIZATION AVOID..... None

SECTION VII - SPILL OR LEAK PROCEDURE

R SPILL..... In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

STE DISPOSAL METHOD.... Industrial Waste. Follow Federal, State and Local laws.

SECTION VIII - SPECIAL PROTECTION

SPIRATORY PROTECTION... When ventilation is not adequate, use of NIOSH approved organic vapor gas cartridge respirator is recommended.
TTLATION..... Required in closed areas
..NICAL EXHAUST..... Required in closed areas
.. EXHAUST..... Desired
OTECTIVE GLOVES..... Wear impervious gloves
E PROTECTION..... Use chemical goggles or full face shield.

ER PROTECTIVE IPMENT.....	Chemical type apron recommended

SECTION IX - SPECIAL HANDLING

DLING AND STORAGE.....	Store away from oxidizers or materials bearing a yellow "DOT" label. Keep out of sun and away from heat. Clean up leaks immediately to prevent soil or water contamination.
ECAUTIONARY MEASURES...	Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown in Section V. Use with adequate ventilation.
ARD CLASS.....	Not Regulated
SHIPPING NAME.....	Triethylene Glycol
PORTABLE QUANTITY (RQ).	None
NUMBER.....	None
#.....	None
KAGING SIZE.....	N/A

SECTION X - REGULATORY

UTE.....	YES
RONIC.....	NO
IGNITABILITY.....	NO
REACTIVITY.....	NO
SUDDEN RELEASE OF ESSURE.....	NO
CLA RQ VALUE.....	None
A TPQ.....	None
A RQ.....	None
TION 313.....	No
HAZARD WASTE #.....	None
ANAIR.....	Yes Section 111
AN WATER.....	No

T NOTES N/A - not applicable N/D - no data available
- means less than > - means greater than
pp. - approximate Est. - estimated

PARED BY:..... Glen White, S.I.S., 817-560-4631

MATERIAL SAFETY DATA SHEET
TRIETHYLENE GLYCOL

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.

Mobil

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:10/08/92

********** I. PRODUCT IDENTIFICATION **********

MOBIL PEGASUS 485

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
NATURAL GAS ENGINE OIL

24-HOUR EMERGENCY (CALL COLLECT):
(609) 737-4411

CHEMTREC:
(800) 424-9300

PRODUCT AND MSDS INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: Dark Amber Liquid — ODOR: Mild — PH: NA
VISCOSITY AT 100 F, SUS: 649.0 — AT 40 C, CS: 124.0
VISCOSITY AT 210 F, SUS: 69.7 — AT 100 C, CS: 12.5
FLASH POINT F(C): > 450(232) (ASTM D-92)
MELTING POINT F(C): NA — POUR POINT F(C): 5(-15)
BOILING POINT F(C): > 600(316) — VOC: < 5.00(Wt. %): 0.367 lbs/gal
RELATIVE DENSITY, 15/4 C: 0.88 — SOLUBILITY IN WATER: Negligible
VAPOR PRESSURE-mm Hg 20C: < .1

NA=Not Applicable NE=Not Established D=Decomposes
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

None

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A*=Suggested-TLV, M=Mobil, O=OSHA, S=Supplier
NOTE: Limits shown for guidance only. Follow applicable regulations.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

THRESHOLD LIMIT VALUE: 5.00 mg/m3 Suggested for Oil Mist
EFFECTS OF OVEREXPOSURE: Not expected to be a problem.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: Flush thoroughly with water. If irritation persists, call a physician.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

Mobil

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 450(232) (ASTM D-92)
FLAMMABLE LIMITS. LEL: .6% UEL: 7.0%
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None.
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

********** VII. REACTIVITY DATA **********

STABILITY (Thermal, Light, etc.): Stable
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (Materials to Avoid): Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.
HAZARDOUS POLYMERIZATION: Will not occur.

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.
WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

********** X. SPECIAL PRECAUTIONS **********

No special precautions required.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Slightly toxic ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Slightly toxic ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of similar oils showed no evidence of carcinogenic effects.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: All components registered in accordance with TSCA and EINECS.

DOT:

Shipping Name: Not applicable
Hazard Class: Not applicable

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 - FORMERLY 302) REPORTABLE HAZARD CATEGORIES: None

This product contains no chemicals reportable under SARA (313) toxic release program.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

Mobil

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS) (.03%)	7440-66-6	22
PHOSPHORODITHOIC ACID, 0,0-DI C1-14-ALKYL ESTERS, ZINC SALTS (2:1) (ZDDP) (.24%)	68649-42-3	22

--- REGULATORY LISTS SEARCHED ---

1 = ACGIH ALL	6 = IARC 1	11 = TSCA 4	17 = CA P65	22 = MI 293	
2 = ACGIH A1	7 = IARC 2A	12 = TSCA 5a2	18 = CA RTK	23 = MN RTK	
3 = ACGIH A2	8 = IARC 2B	13 = TSCA 5e	19 = FL RTK	24 = NJ RTK	
4 = NTP CARC	9 = OSHA CARC	14 = TSCA 6	20 = IL RTK	25 = PA RTK	
5 = NTP SUS	10 = OSHA Z	15 = TSCA 12b	21 = LA RTK	26 = RI RTK	
		16 = WHMIS			

CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS **********

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS THE FOLLOWING BASE OILS:	> 95.00	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC		64742-65-0
AMINES, POLYETHYLENEPOLY-, REACTION PRODUCTS WITH SUCCINIC ANHYDRIDE POLYBUTENYL DERIVS.	< 2.00	68439-80-5
SULFONIC ACIDS, PETROLEUM, CALCIUM SALTS	< 2.00	61789-86-4
ZINC DITHIOPHOSPHATE	0.26 NJT	800967-5469P

********** APPENDIX **********

FOR MOBIL USE ONLY: MHC: 1* 1* NA 0* 0*, MPPEC: A, PPEC: , US92-547
APPROVE CCODE:3 10/03/92 REQ: US - MARKETING

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265

MATERIAL SAFETY DATA SHEET

American Sales and Service
5261 West 42nd Street
Odessa, Texas 79764

Telephone 915-381-3740

Section 1 PRODUCT IDENTIFICATION

(1) Product Name: F 20 BIODEGRADABLE DEGREASER
(2) Chemical Name/Synonyms: n/a
(3) Chemical family: Alkaline Detergent
(4) Chemical Formula: mixture
(5) NFPA Acute hazard rating:
(6) Health: 1 (7) Flammability: 0 (8) Reactivity: 0

Section 2 CHEMICAL COMPOSITION

(1) Ingredient (Chemical Name)	(2) CAS Number	(3) Percent Range	(4) PEL	(5) LD_{50} mg/kg
Sodium Nitrite	7632-00-0	<1.0	n/a	214
Sodium Metasilicate	6834-92-0	<5.0	n/a	250
Ethylene Diamine Tetraacetate, Tetrasodium	64-02-8	<1.0	n/a	330
Ethylene Glycol Monobutyl	111-76-2	<7.0	n/a	1200
Balance non-hazardous		>84.0		

Section 3 EMERGENCY AND FIRST AID PROCEDURES

(1) Eye Contact: Rinse for 15 minutes wit potable water. If irritation persists, seek medical attention.
(2) Skin Contact: Rinse with water.
(3) Inhalation: Remove victim to source of fresh air. If symptoms persist, seek medical attention.
(4) Ingestion: Seek immediate medical attention.
(5) Special instructions for physician: None.

Section 4 PHYSIOLOGICAL EFFECTS

(1) Primary route (s) of entry into body:
(2) __Skin absorption (3) __Inhalation (4) _X_Ingestion
(5) Acute effects:
(6) Eyes: Blurred vision, redness, watering, burning, blistering.
(7) Skin: Redness.
(8) Inhalation: Irritation, coughing.
(9) Ingestion: Burning sensation, nausea.
(10) Chronic Effects: (include carcinogenic potential) Not known.

Section 5 OCCUPATIONAL CONTROL PROCEDURES

(1) Ventilation:
(2) __Local exhaust. (3) _X_General exhaust. (4) __None required.
(5) Personal protective equipment:
(6) Respirator type: None required.
(7) Gloves: (8) __Natural rubber (9) __Plastic (10) __Nitrile
(11) _X_Neoprene (12) __Butyl (13) _____Other
(14) Eye Protection: (15) _X_Glasses with side shields
(16) __Full face shield
(17) __Chemical splash goggles
(18) __Other: None

Section 6 PHYSICAL DATA

(1) Appearance/Odor: Clear green liquid.
(2) Physical state: (3) __Solid (4) X Liquid (5) __Gas
(6) Boiling point: 212°F (7) Freezing point: 32°F (8) Specific gravity (H_2O=1): 1.06
(9) pH (full strength): 12.5 (10) pH (dilution): 11.5
(11) Solubility in water: Complete (12) Vapor pressure: 17.5 mm Hg. @20°C
(13) Vapor density (air=1): n/a (14) Evaporation rate (water=1): >1

Section 7 FIRE AND EXPLOSION HAZARD DATA

(1) Flash point: none. (2) Method used: C.O.C.
(3) Flammable (explosive) Limits in air: n/a (4) Autoignition temperature: n/a
(5) Suitable extinguishing media: n/a (6) Hazardous combustion by-products: n/a
(7) Recommended fire fighting procedures: n/a (8) Unusual fire & explosion hazards: n/a

Section 8 REACTIVITY DATA

(1) Thermal stability: (2) X Stable (3) ___Unstable
(4) Conditions to avoid: extreme heat, strong acids
(5) Hazardous decomposition products: none.
(6) Hazardous polymerization: (7) ____May occur (8) X Will not occur
(9) Incompatibility: (11) Materials to avoid: strong acids
(12) Corrosive action on materials: nil on most materials

Section 9 STORAGE AND HANDLING PRECAUTIONS

(1) Storage: Store at temperatures below 120°F.
(2) Handling: Wear chemical resistant gloves, apron and eye and face protection.
(3) Precautionary labeling: none.

Section 10 ENVIRONMENTAL INFORMATION

(1) Spill or leak procedures: (2) Small spill/leak: Neutralize with acid. Rinse to drain.
(3) Large spill/leak: Mop up or absorb. Neutralize with acid and rinse to drain.
(4) Spill reportable quantity: none.
(5) Waste disposal method (including clean-up media.) Neutralize with acid. Ship to registered waste disposal site.
(6) EPA or appropriate waste classification:
(7) __RCRA or appropriate characteristic waste. If so, EPA Hazardous No. none
(8) __RCRA or approved listed waste: If so EPA Hazardous waste No. none
(9) X Non-RCRA regulated waste.
(10) Procedure for handling empty containers: rinse thoroughly.
(11) Environmental toxicity data: biodegradable.
(12) Other regulatory controls:
(13) Is material classified under the CLEAN WATER ACT (USA) or appropriate water regulations as a: (14) Toxic pollutant (section 307)? X No (15) Hazardous substnace (section 311) X No (16) Oil (section 311)? X No (17) Is material classified under the CLEAN AIR ACT (USA) or appropriate CLEAN AIR REGULATIONS as a: (18) Hazardous air pollutant (section 12)? X No

Section 10 TRANSPORTATION AND SHIPPING REQUIREMENTS

(1) Indicate country/regulatory agency which specifies requirements: X USA-DOT
(2) Proper shipping name: Cleaning compound, liquid N.O.I.B.N.
(3) Hazard class: None (4) Identification No. None
(5) Labels required: ____Flammable liquid X Corrosive material Other None
(6) Other Requirements: None.

MATERIAL SAFETY DATA SHEET

APPROVED BY U S LABOR DEPT, ESSENTIALLY SIMILAR TO FORM OSHA 174

SECTION 1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION

PRODUCT IDENTITY: B-9 CHEMDIP CARBURETOR AND PARTS CLEANER (LIQUID)
PART NUMBER(S): 0901, 0902, 0905, 0948, 0996 and 0955. (BLEND 2AAC)

COMPANY NAME: BERRYMAN PRODUCTS, INC.
3800 EAST RANDOL MILL RD.
ARLINGTON, TEXAS 76011
PHONE NO. (800) 433-1704
EMERGENCY RESPONSE NUMBER:
INFOTRAC: (800) 535-5053

SECTION 2. INGREDIENT AND REGULATORY INFORMATION

SARA TITLE III Section 313 Supplier Notification
This product contains the indicated (*) toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning & Community Right-To-Know Act of 1986 & of 40 CFR 372.

HAZARDOUS INGREDIENTS	CAS#	WT. %	(REG. SECTION)
Monochlorotoluene	25168-05-2	24	(311,312)
*Methylene Chloride	75-09-2	29	(311,312,313)
*Mixed Xylenes	1330-20-7	7	(311,312,313)
Ethyl Phenols	25429-37-2	4	(311,312)
Xylenols	1300-71-6	3	(311,312)

MATERIAL	CAS#	TWA (OSHA)	TLV (ACGIH)
Monochlorotoluene	25168-05-2	50 ppm	50 ppm
Methylene Chloride	75-09-2	25 ppm	50 ppm
Mixed Xylenes	1330-20-7	100 ppm	100 ppm
Ethyl Phenols	25429-37-2	N/E	N/E
Xylenols	1300-71-6	N/E	N/E

MATERIAL	CAS#	CEILING	STEL (OSHA/ACGIH)
Methylene Chloride	75-09-2	1000 ppm	125 ppm
Mixed Xylenes	1330-20-7	N/E	150 ppm
Monochlorotoluene	25168-05-2	N/E	N/E
Ethyl Phenols	25429-37-2	N/E	N/E
Xylenols	1300-71-6	N/E	N/E

SECTION 3. FIRE FIGHTING MEASURES

UPPER AND LOWER FLAMMABLE LIMITS IN AIR (% by vol): None Known
FLASH POINT (TEST METHOD): 132° F (TCC)
EXTINGUISHING AGENTS: Foam, Dry Chemical, Carbon Dioxide.
SPECIAL FIRE FIGHTING PROCEDURES: Cool fire exposed containers with water spray.
UNUSUAL EXPLOSION AND FIRE PROCEDURES: Firefighters should wear self contained breathing apparatus due to corrosive thermal decomposition products, and avoid skin contact.

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SECTION 4. PHYSICAL DATA (LOWER SOLVENT LAYER)***

APPEARANCE:	Amber liquid
ODOR:	Characteristic
BOILING RANGE:	39 C / 103 F
GRAVITY @ 60 F:	
SPECIFIC GRAVITY (Water=1):	1.126
POUNDS/GALLON:	9.38
VAPOR PRESSURE (mm of Hg) @ 20 C:	>300
VAPOR DENSITY (air = 1):	2.9
SOLUBILITY IN WATER:	Negligable
MELTING POINT:	N/A
% VOLATILE BY VOL:	85

*** CHEMDIP IS A BIPHASE PRODUCT; CONSISTING OF AN UPPER WATER LAYER AND A LOWER SOLVENT LAYER.

SECTION 5. HAZARDS IDENTIFICATION

HAZARDS: HEALTH (NFPA): 3, HEALTH (HMIS): 3, FLAMMABILITY: 2, REACTIVITY: 0.

ACUTE HAZARDS

EYE & SKIN CONTACT:
Liquid can cause severe burns to eyes. Liquid can cause severe burns to skin, defatting, dermatitis. Absorption through skin increases exposure.

INHALATION:
Vapor harmful!! Breathing vapor may cause respiratory irritation. Acute overexposure can cause serious nervous system depression, ranging from dizziness, nausea, vomiting, unconsciousness and can be fatal. Acute overexposure can cause damage to kidneys, liver, and lungs.

SWALLOWING:
Harmful or fatal if swallowed. Aspiration hazard.
Swallowing can cause abdominal irritation, nausea, vomiting and diarrhea.

MEDICAL CONDITIONS AGGREVATED BY EXPOSURE:
Persons with severe skin, liver, heart, respiratory, or kidney problems, or alcoholism should avoid use.

CHRONIC HAZARDS:
Chronic overexposure may cause cancer based on animal data. Risk of cancer depends on duration and level of exposure.
Methylene Chloride: NTP: yes IARC: yes OSHA: no

SECTION 10. EXPOSURE CONTROLS AND PERSONAL PROTECTION

VENTILATION:
LOCAL EXHAUST: Necessary
MECHANICAL (GENERAL): Acceptable
SPECIAL: None
OTHER: None
PERSONAL PROTECTIONS:
Wear solvent-resistant gloves, apron, and safety glasses.
Respirator not required when used with adequate ventilation.

SECTION 11. TRANSPORTATION INFORMATION (DOT)

ITEM	PROPER SHIPPING NAME	HAZ. CLASS	PKG. GROUP	UN ID. No.
0901, 0948, 0998	CONSUMER COMMODITY "Limited Quantity"	ORM-D	N/A	UN2810
0902, 0906, 0955	TOXIC LIQUIDS, ORGANIC n.o.s. contains methylene chloride	6.1	III	UN2810

SECTION 12. OTHER INFORMATION

CALIFORNIA PROPOSITION 65: WARNING! This product contains the following chemical known to the State of California to cause cancer:
Methylene Chloride CAS# 75-09-2

All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency.

Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publications or use of, or reliance upon, information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

DATE PREPARED: 4-10-97
LAST ISSUE DATE: 11-3-94

SECTION 6. FIRST AID MEASURES PROCEDURES

EYE CONTACT:
For eyes, immediately flush with plenty of water for 15 minutes. CALL A PHYSICIAN IMMEDIATELY.

SKIN CONTACT:
In case of contact with skin, immediately flush skin with plenty of water for 15 minutes while removing contaminated clothing and shoes. If irritation persists CALL A PHYSICIAN IMMEDIATELY.

INHALATION:
After high vapor exposure, remove to fresh air. If breathing is difficult, CALL A PHYSICIAN IMMEDIATELY!

SWALLOWING:
If swallowed, give 1 or 2 glasses of water and CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER IMMEDIATELY. Do not induce vomiting unless instructed.

SECTION 7. REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID: Avoid spraying or pouring into open flames and on heated surfaces which can cause thermal decomposition.
MATERIALS TO AVOID: Strong oxidizers, painted surfaces.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, and Carbon Dioxide, Hydrogen Chloride, small amounts of Phosgene from burning.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 8. SPILL, LEAK AND DISPOSAL PROCEDURES

Contain spill or leak with inert absorbant material. Do not flush liquid down drain. Place absorbed liquid in container for disposal. Dispose of empty containers according to Local disposal procedures. Containers with liquid; Consult Local, State, or Federal disposal authorities for approved procedures. IMPORTANT: Once this product is completely exhausted and saturated with residues, it becomes classified as a hazardous waste. Proper disposal of this material is the responsibility of the user of the product. Berryman Products, Inc. accepts no liability for improper disposal.

SECTION 9. HANDLING AND STORAGE

Vapors Harmful! Avoid breathing vapors. Use in well ventilated area preferably outdoors. If ventilation is not adequate, respiratory protection should be used. Keep away heat and open flames. Keep Out Of The Reach Of Children. Store containers in a cool well ventilated area below 120 F. Do not store in direct sunlight. Do not incinerate containers.

SIGNS AND SYMPTOMS
IRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS DEPRESSION MAY BE EVIDENCED BY GIDDINESS, HEADACHE, DIZZINESS AND NAUSEA; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS (BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR.

AGGRAVATED MEDICAL CONDITIONS
PREEXISTING EYE, SKIN, AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SEE SECTION VI FOR SUPPLEMENTAL INFORMATION.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

NO.	OSHA PEL/TWA	OSHA PEL/CEILING	ACGIH TLV/TWA	ACGIH TLV/STEL	OTHER
P*	300 PPM		300 PPM		400 PPM **

*RECOMMEND EXPOSURE LIMITS FOR VM&P NAPHTHA AS A GUIDELINE. **OSHA PEL/STEL.

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT
FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT
REMOVE CONTAMINATED CLOTHING/SHOES. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

INHALATION
REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

INGESTION
DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.*

NOTE TO PHYSICIAN
*IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

MALE RATS EXPOSED BY PROLONGED AND REPEATED INHALATION TO HIGH VAPOR CONCENTRATIONS OF SOLVENTS SIMILAR TO THIS PRODUCT SHOWED EVIDENCE OF KIDNEY DAMAGE. THE RELEVANCE OF THIS INFORMATION TO MAN IS UNKNOWN. IN ONE STUDY ON A SOLVENT SIMILAR THE PRODUCT, A LOW GRADE ANEMIA WAS ALSO OBSERVED.

SECTION VII PHYSICAL DATA

BOILING POINT: 224-274 (DEG F)

SPECIFIC GRAVITY: 0.744 @ 60 DEG F (H2O=1)

VAPOR PRESSURE: 41 @ 100 DEG F(EST) (MM HG)

MELTING POINT: NOT AVAILABLE (DEG F)

SOLUBILITY: NEGLIGIBLE (IN WATER)

VAPOR DENSITY: 4.0 (AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): 2.5 (EST)

VOC: 100% @ 6.13 LB/GAL @77 DEG F

APPEARANCE AND ODOR:
COLORLESS LIQUID. HYDROCARBON ODOR.

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:
39 DEG F (TCC)

FLAMMABLE LIMITS /% VOLUME IN AIR
LOWER: 1.0 UPPER: 7.0

EXTINGUISHING MEDIA
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS
WARNING. FLAMMABLE. CLEAR FIRE AREA OF UNPROTECTED PERSONNEL. DO NOT ENTER CONFINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS
CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, SPARKS, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION
AVOID PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

PROTECTIVE CLOTHING
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOGGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT.

ADDITIONAL PROTECTIVE MEASURES
USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA, THEN LAUNDER BEFORE REUSING.

SECTION XI ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES
WARNING. FLAMMABLE. ELIMINATE ALL IGNITION SOURCES. HANDLING EQUIPMENT MUST BE GROUNDED TO PREVENT SPARKING. *** LARGE SPILLS *** EVACUATE THE HAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN. IF VAPOR CLOUD FORMS, WATER FOG MAY BE USED TO SUPPRESS; CONTAIN RUN-OFF. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE/SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND OR OTHER SUITABLE MATERIAL; PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE; DISPOSE OF FLUSH SOLUTIONS AS ABOVE. *** SMALL SPILLS *** TAKE UP WITH AN ASSORBENT MATERIAL AND PLACE IN NON-LEAKING CONTAINERS; SEAL TIGHTLY FOR PROPER DISPOSAL.

SECTION XII SPECIAL PRECAUTIONS

KEEP LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAME. SURFACES THAT ARE SUFFICIENTLY HOT MAY IGNITE EVEN LIQUID PRODUCT IN THE ABSENCE OF SPARKS OR FLAME. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPORS ARE GONE. VAPORS MAY ACCUMULATE AND TRAVEL TO IGNITION SOURCES DISTANT FROM THE HANDLING SITE; FLASH-FIRE CAN RESULT. KEEP CONTAINERS CLOSED WHEN NOT IN USE. USE WITH ADEQUATE VENTILATION.

CONTAINERS, EVEN THOSE THAT HAVE BEEN EMPTIED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM.

STATIC ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. BOND AND GROUND TRANSFER CONTAINERS AND EQUIPMENT.

SECTION XIII TRANSPORTATION REQUIREMENTS

EPARTMENT OF TRANSPORTATION CLASSIFICATION:
CLASS 3 (FLAMMABLE LIQUIDS), II

D.O.T. PROPER SHIPPING NAME:
PETROLEUM DISTILLATES, N.O.S. (PETROLEUM NAPHTHA)

OTHER REQUIREMENTS:
UN1268, GUIDE 27

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES

PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.

IN ACCORDANCE WITH SARA TITLE III, SECTION 313, THE ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PRODUCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE APPLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YOU SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	PERCENT	STATE CODE
BENZENE (CAS NO: 71-43-2)	<30 PPM	MA, CA65

CA = CALIFORNIA HAZ. SUBST. LIST; CA63 = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT LIST; CT = CONNECTICUT TOX. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.

THIS PRODUCT CONTAINS A CHEMICAL OR CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND/OR REPRODUCTIVE TOXICITY.

SECTION XVI SPECIAL NOTES

THIS MSDS REVISION HAS CHANGES IN SECTION XIII.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: MARCH 25, 1994

J. C. WILLETT

BE SAFE

READ OUR PRODUCT
SAFETY INFORMATION ...AND PASS IT ON
(PRODUCT LIABILITY LAW
REQUIRES IT)

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4320
HOUSTON, TX 77210

MATERIAL SAFETY DATA SHEET

Institute of Gas Technology
3424 South State Street
Chicago, IL 60616
(312) 567-3650

IGT

METHANE

CAS # 000-074-828

Date: September 1987

SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: METHANE
DESCRIPTION: Compressed gas (Max. 2000 psig) in cylinders
OTHER DESIGNATIONS: CH_4, Methyl Hydride, Marsh Gas, Natural Gas

SECTION II. INGREDIENTS AND HAZARDS	%	HAZARD DATA
METHANE	93 min*	Simple asphyxiant**
Typical Impurities: (See ASTM D1945 for method of analysis)		
Ethane	<4	Simple asphyxiant
Propane	<1	Simple asphyxiant
Butanes	<0.4	Simple asphyxiant
C_xH_{2x+2} (x=5 and above)	<0.1	
Carbon dioxide	<0.7	
Nitrogen	<0.6	
Oxygen	<0.1	

* "Commercial" methane or a high-methane natural gas (a trace of odorants, such as mercaptans, may be added as an odorizer). Purified methane is >99% CH_4 with very low impurity levels.

** The TLV (ACGIH, 1979) requires a minimal oxygen content of 18% by volume in workplace air at 1 atm.

SECTION III. PHYSICAL DATA

Boiling point at 1 atm, °C	-161.5	Density at -162°C, liquid, g/cc	0.43
Critical temperature, °C	-82.1	Freezing point at 1 atm, °C	-182.6
Critical pressure, atm	45.8	Molecular weight	16.04
Specific gravity, gas (Air = 1)	0.55		

Appearance & Odor: Colorless, odorless and tasteless gas (Unless odorants added to odorize). Also has been shipped and handled as cold liquid (LNG) in insulated containers.

SECTION IV. FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits in Air, % by volume	Lower	Upper
-306°F	1004°F		5.0	15

Extinguishing Media: Flame can be extinguished with CO_2, dry chemical or halocarbon gas. A hazard of re-ignition or explosion exists if flame is extinguished without stopping flow of gas or cooling the surroundings! Use water spray to cool surroundings! Control and then shut off gas flow when feasible, but it may be necessary or desirable to allow flame at cylinder or storage tank to continue burning while cooling containers and surroundings with water from a safe distance or from unmanned hose stations. Danger of rocketing cylinders and explosion exists. (Methane cylinders have fusible metal (165°F or 212°F) safety devices for pressure relief.)

SECTION V. REACTIVITY DATA

When suitably contained and kept unmixed with air or other oxidizing agents, methane is stable under normal storage and handling conditions. It does not polymerize; it is non-corrosive. However, it readily forms flammable/explosive mixtures with air (see Sect. IV).

In the presence of catalysts or sources of ignition, violent or explosive reactions can occur between methane and oxidizing agents, such as chlorine, bromine pentafluoride, oxygen difluoride, and nitrogen trifluoride. It explodes spontaneously on mixing with chlorine dioxide.

A mixture of liquid methane and liquid oxygen is an explosive. Even at -190°C liquid fluorine explodes on contact with liquid methane.

SECTION VI. HEALTH HAZARD INFORMATION	TLV Simple Asphyxiant (See Sec. II)

Methane is non-toxic. However, it can act as an asphyxiant by displacing or partially displacing the air required to support life. Workers exposed to oxygen deficient atmospheres become cyanotic, experience diminished mental alertness and impaired muscular coordination, and dyspnea. Collapse and death can occur at very low oxygen levels. Contact with liquefied methane can produce freeze burns.

FIRST AID

Contact of liquid with skin: Remove victim from contact. Flush affect area with lots of tepid water. Do not apply direct heat to area. Loosely apply dry sterile, bulky dressings to protect area from infection/injury. Get medical help.

Inhalation: Remove to fresh air. Quickly restore and/or support breathing as required. Have trained person administer oxygen if available. (Mouth-to-mouth resuscitation should be used immediately for a victim of methane asphyxiation!). Get medical help.

SECTION VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Notify safety personnel. Evacuate area. Provide optimum, explosion-proof ventilation. Shut off methane source if possible. Remove sources of heat or ignition if feasible.

DISPOSAL: Remove leaking cylinder to isolated area outdoors or place into a hood with adequate forced ventilation. Keep concentration of gas below 25% of LEL by ventilation. Allow gas to discharge at controlled, slow to moderate rate. Defective cylinders tagged to indicate defect. Close valve and return to supplier.

SECTION VIII. SPECIAL PROTECTION INFORMATION

Provide adequate general and local exhaust ventilation (explosion proof) to prevent work place atmospheres from reaching 20% of LEL. Thoroughly test methane lines for leakage with nitrogen pressure before use, especially in enclosed areas. Give special attention to ventilation for enclosed areas.

Provide air supplied or self-contained breathing equipment for emergency or nonroutine situations where methane level is excessive. The use of cartridge or canister respirators may result in suffocation.)

Safety shield, gloves, glasses and safety shoes are recommended when handling cylinders.

SECTION IX. SPECIAL PRECAUTIONS AND COMMENTS

Store cylinders in a well-ventilated, low fire-risk area. Outdoor or detached storage preferred. Keep cylinders away from oxidizing agents and sources of heat or ignition. Protect cylinders against physical damage. Follow general safety procedures for handling and storing compressed gas cylinders. No part of a cylinder should be exposed to temperature above 125°F.

Ground all lines and equipment used with methane to prevent static sparks. Use non-sparking tools. No Smoking where methane is used or stored.

A 19% oxygen concentration in the air is the minimum recommended for working without special breathing equipment. (Air/methane at 19% oxygen is near the LEL.)

DOT CLASSIFICATION: FLAMMABLE LABEL: FLAMMABLE, Red Label

DATA SOURCE(S) code: 2,4-11,17-18,23,25

METHANOL

MSDS No. HCR001423

Rev. Date 03/06/92

LYONDELL PETROCHEMICAL COMPANY
1221 MCKINNEY AVENUE, SUITE 1600
P.O. BOX 3646
HOUSTON, TEXAS 77253-3646

IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and users of this product.

This product is considered a hazardous chemical under the OSHA Hazard Communication Rule.

I. General

Trade Name:	METHANOL 1
Other Names	METHYL ALCOHOL; (MEETS ASTM D-1152 SPECIFICATIONS); WOOD ALCOHOL; WOOD NAPHTHA; CARBINOL; COLUMBIAN SPIRITS; MANHATTAN SPIRITS.

Telephone Numbers
EMERGENCY
800/424-9300 CHEMTREC
800/245-4532 HOT LINE
CUSTOMER SERVICE
713/652-7200 INFO ONLY

Chemical Family	ALIPHATIC ALCOHOL
Generic Name	METHANOL

DOT Hazardous Materials Proper Shipping Name
METHANOL OR METHYL ALCOHOL(RQ-5000/2270)

DOT Hazard Class
3 (FLAMMABLE LIQUID, POISON)

CAS No.	67-56-1	Company ID No.	ECC0142300	UN/NA ID No.	UN 1230

II. DANGER — Summary of Hazards

EXTREMELY FLAMMABLE! OSHA/NFPA CLASS-IB FLAMMABLE LIQUID.
KEEP AWAY FROM HEAT, SPARKS, AND FLAME. KEEP CONTAINERS CLOSED.
POISON-CLASS B. HARMFUL OR FATAL IF SWALLOWED OR ABSORBED THROUGH THE SKIN!
INGESTION OF ONE TO FOUR OUNCES CAN CAUSE IRREVERSIBLE INJURY TO THE NERVOUS SYSTEM, BLINDNESS, OR DEATH. IT CANNOT BE MADE NON-POISONOUS.
CAUSES EYE AND RESPIRATORY SYSTEM IRRITATION AND MAY CAUSE SKIN IRRITATION!
AVOID LIQUID, MIST, OR VAPOR CONTACT. WEAR PROPER PROTECTIVE CLOTHING.
WASH THOROUGHLY AFTER HANDLING. (SEE SECTION V. AND "SUPPLEMENT").
MAY BE HARMFUL IF INHALED! MAY CAUSE INTERNAL ORGAN DAMAGE!
AVOID BREATHING VAPORS. USE ONLY WITH ADEQUATE VENTILATION.
VAPOR INHALATION OR LIQUID PENETRATION OF THE SKIN CAN CAUSE CENTRAL NERVOUS SYSTEM (CNS) DEPRESSION. PROLONGED OR REPEATED HIGH INHALATION EXPOSURE MAY CAUSE OPTIC NERVE DAMAGE, PULMONARY AND/OR CEREBRAL EDEMA, LIVER AND/OR KIDNEY DAMAGE, COMA, RESPIRATORY FAILURE, AND EVEN DEATH.

III. Fire and Explosion

Flash Point (Method)	Autoignition Temperature (Method)	Flammable Limits (% Vol. in Air) At Normal Atmospheric Temperature and Pressure
AP 53°F (D-56)	AP 725°F (E-659)	Lower AP 6.0 Upper AP 36.5
SEE "FIRE & EXPLOSION HAZARDS"	BASED UPON NFPA "METHANOL"	BASED UPON NFPA "METHANOL"

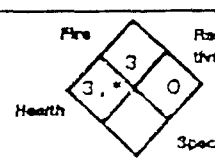
Fire and Explosion Hazards
EXTREMELY FLAMMABLE! THIS MATERIAL RELEASES VAPORS AT OR BELOW AMBIENT TEMPERATURES. WHEN MIXED WITH AIR IN CERTAIN PROPORTIONS AND EXPOSED TO AN IGNITION SOURCE, THESE VAPORS CAN BURN IN THE OPEN OR EXPLODE IN CONFINED SPACES. BEING HEAVIER THAN AIR, FLAMMABLE VAPORS MAY TRAVEL LONG DISTANCES ALONG THE GROUND BEFORE REACHING A POINT OF IGNITION AND FLASHING BACK.

Extinguishing Media

ALCOHOL TYPE FOAM	HALON
DRY CHEMICAL	FOAM
CO2	WATERSPRAY

WATER FOG, WATERSPRAY, AND FOAM CAN COOL THE FIRE, BUT PROBABLY WILL NOT ACHIEVE EXTINGUISHMENT.

HAZARD RATING:
4 - Extreme
3 - High
2 - Moderate
1 - Slight
0 - Insignificant



* Chronic Health Hazard - See Section IV.

Special Firefighting Procedures
MIXTURES WITH WATER CONTAINING MORE THAN 21 VOL.% METHANOL ARE FLAMMABLE. DIKE UP FIRE CONTROL WATER FOR LATER DISPOSAL; DO NOT SCATTER THE MATERIAL. METHANOL FIRES MAY NOT BE VISIBLE TO THE NAKED EYE. DO NOT ENTER ANY CONFINED/ENCLOSED FIRE SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT, INCLUDING SELF-CONTAINED BREATHING APPARATUS. WATER COOL FLAME-EXPOSED CONTAINERS FROM THE SIDE UNTIL WELL AFTER THE FIRE IS OUT. EVACUATE IMMEDIATELY IF THERE IS A RISING SOUND OF VENTING SAFETY DEVICES OR TANK DISCOLORIZATION.

IV. Health Hazards

Summary of Acute Hazards	LIQUID, MIST OR VAPORS CAN CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION AND CNS DEPRESSION. ASPIRATION INTO THE LUNGS WILL CAUSE CHEMICAL PNEUMONIA

ROUTE OF EXPOSURE	SIGNS AND SYMPTOMS	Primary Rou
Inhalation	SHORT-TERM EXPOSURE TO HIGH LEVELS OF VAPOR MAY CAUSE CNS DEPRESSION. SYMPTOMS INCLUDE NAUSEA, DROWSINESS, VERTIGO, FATIGUE, CONVULSIONS, UNCONCIOUSNESS AND DEATH, DEPENDING ON EXPOSURE DURATION. (SEE "SUMMARY" BELOW.)	[X]
Eye Contact	EYE IRRITATION MAY OCCUR UPON SHORT-TERM EXPOSURE, INCLUDING A BURNING SENSATION, TEARING, REDNESS, OR SWELLING. UPON DIRECT CONTACT WITH LIQUID, CONJUNCTIVITIS AND CORNEAL BURNS MAY OCCUR.	[X]
Skin Absorption	UPON PROLONGED OR REPEATED CONTACT, ABSORPTION THROUGH THE SKIN MAY OCCUR AND PRODUCE TOXIC EFFECTS SIMILAR TO THOSE RESULTING FROM INHALATION EXPOSURE. (SEE "SUMMARY OF CHRONIC HAZARDS" BOX BELOW.)	[X]
Skin Irritation	SKIN IRRITATION OR MORE SERIOUS DISORDERS MAY OCCUR UPON PROLONGED AND REPEATED CONTACT DUE TO SKIN DEFATTING.	[X]
Ingestion	SWALLOWING ONLY 1 TO 4 OUNCES HAS BEEN REPORTED TO CAUSE DEATH OR SERIOUS IRREVERSIBLE INJURY SUCH AS BLINDNESS. METHANOL METABOLISM CAUSES SYSTEMIC ACIDOSIS RESULTING IN DAMAGE TO THE OPTIC NERVE. SYMPTOMS MAY BE DELAYED.	[X]
Summary of Chronic Hazards and Special Health Effects	METHANOL IS SLOWLY ELIMINATED FROM THE BODY, HENCE REPEATED EXPOSURES MAY RESULT IN TOXIC LEVELS IN THE BLOOD AND TISSUES. IN LIMITED ANIMAL STUDIES, WHERE METHANOL WAS GIVEN ORALLY OR APPLIED TO THE SKIN, THERE HAS BEEN NO EVIDENCE OF CARCINOGENIC POTENTIAL. METHANOL HAS BEEN REPORTED TO CAUSE BIRTH DEFECTS IN RATS EXPOSED TO VERY HIGH CONCENTRATIONS (20,000 PPM). PERSONNEL WITH PRE-EXISTING CNS DISEASE, SKIN DISORDERS, IMPAIRED LIVER OR KIDNEY FUNCION, OR CHRONIC RESPIRATORY DISEASES SHOULD AVOID EXPOSURE.	

V. Protective Equipment and Other Control Measures

Respiratory	DO NOT USE AIR-PURIFYING RESPIRATOR. ONLY NIOSH/MSHA APPROVED SUPPLIED AIR OR SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE ARE SATISFACTORY, IF EXPOSURE CAN EXCEED THE PEL/TLV.
Eye	EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN.
Skin	WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE.
Engineering Controls	GENERAL ROOM OR LOCAL EXHAUST VENTILATION IS USUALLY REQUIRED TO MEET EXPOSURE STANDARD(S).
Other Hygienic and Work Practices	EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. USE GOOD PERSONAL HYGIENE PRACTICES. WASH HANDS BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. PROMPTLY REMOVE SOILED CLOTHING/WASH THOROUGHLY BEFORE REUSE. SHOWER AFTER WORK USING PLENTY OF SOAP AND WATER.

VI. Occupational Exposure Limits

Substance	Source	Date	Type	Value/Units	Time
METHYL ALCOHOL (METHANOL) - SKIN	OSHA	1989	PEL	200 PPM	8 HRS
METHYL ALCOHOL - SKIN	ACGIH	1991	TLV	200 PPM	8 HRS
			STEL	250 PPM	15 MIN

VII. Emergency and First Aid

Inhalation	IMMEDIATELY REMOVE FROM CONTAMINATED AREA TO FRESH AIR. KEEP INDIVIDUAL QUIET. FOR RESPIRATORY DISTRESS, GIVE AIR OR OXYGEN AND/OR ADMINISTER CARDIOPULMONARY RESUSCITATION (CPR). OBTAIN EMERGENCY MEDICAL ATTENTION.
Eye Contact	IMMEDIATELY FLUSH EYES WITH PLENTY OF CLEAN LOW-PRESSURE WATER FOR AT LEAST 15 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.
Skin Contact	IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH AFFECTED SKIN THOROUGHLY WITH SOAP AND WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE; WASH OR DISCARD CONTAMINATED LEATHER SHOES/GLOVES.
Ingestion	SEE EMERGENCY MEDICAL TREATMENT PROCEDURES AND SECTION XI. "GENERAL COMMENTS".
Emergency Medical Treatment Procedures	METHANOL INGESTION IS LIFE-THREATENING. IF SWALLOWED AND CONSCIOUS, DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY FINGER DOWN THE THROAT OR WITH SYRUP OF IPECAC. FOLLOW EMESIS WITH TWO TEASPOONS OF BAKING SODA IN WATER. SYMPTOM ONSET MAY BE DALAYED. ETHANOL THERAPY MAY BE INDICATED. SEE SECTION XI. "GENERAL COMMENTS" FOR ADDITIONAL INFORMATION.

VIII. Spill and Disposal

Precautions if Material is Spilled or Released	EXTREMELY FLAMMABLE LIQUID! RELEASE CAUSES AN IMMEDIATE FIRE/EXPLOSION HAZARD. REMOVE ALL IGNITION SOURCES AND SAFELY STOP FLOW OF SPILL. REMOVE ALL NON-ESSENTIAL PERSONNEL. USE PROPER PROTECTIVE EQUIPMENT. CONTAIN OR PREVENT FLOW TO SEWERS OR PUBLIC WATERS. BLANKET WITH AN APPROPRIATE FOAM. RESTRICT WATER USE FOR CLEANUP. IN URBAN AREAS, CLEANUP ASAP. IN NATURAL ENVIRONMENTS, SEEK ADVICE FROM ECOLOGISTS. THIS MATERIAL IS WATER-SOLUBLE AND MAY BIODEGRADE. COMPLY WITH ALL APPLICABLE LAWS. SPILLS MAY NEED TO BE REPORTED TO THE NATIONAL RESPONSE CENTER (800/424-8802). SPILLED MATERIAL AND ANY CONTAMINATED WATER OR SOIL MAY BE HAZARDOUS TO HUMAN OR OTHER LIFE.
Waste Disposal Methods	FOR LARGE SPILLS, MAXIMIZE PRODUCT RECOVERY FOR REUSE OR RECYCLING. FREE LIQUID MAY BE COLLECTED USING EXPLOSION-PROOF DIESEL OR VACUUM PUMPS. FOR SMALL SPILLS, TAKE UP WITH SAND OR OTHER NON-COMBUSTIBLE ABSORBENT. USE REGISTERED TRANSPORTERS TO MOVE CONTAMINATED PRODUCT/SOIL/WATER IN D.O.T.-APPROVED CONTAINERS. DISPOSE OF MATERIALS AT A LICENSED FACILITY PERMITTED TO HANDLE RCRA/OSHA "HAZARDOUS WASTES". INCINERATION IS THE RECOMMENDED DISPOSAL METHOD. BURN CONCENTRATED LIQUID IN SYSTEMS COMPATIBLE WITH WATER SOLUBLE WASTES. AVOID FLAMEOUTS. BIODEGRADATION MAY BE USED ON DILUTE AQUEOUS WASTE. ASSURE EMISSIONS AND EFFLUENT COMPLY WITH APPLICABLE LAWS.

IX. Components

(This may not be a complete list of components)

Component Name	CAS No.	Carcinogen##		Composition amount (W/L) (See Qualification on Page 4)
METHANOL (METHYL ALCOHOL)	67-56-1	N/AP	GT	99.9 PERCENT

Compositions given are typical values, not specifications

X. Physical and Chemical Data

Boiling Point (At 760.0 mm Hg) AP 148°F	**Viscosity Units, Temp. (Method)** AP 1 CPS AT 30°C (D-445)		**Dry Point** N/AP
Freezing Point AP -144°F	**Vapor Pressure** (MM HG AT 68°F) AP 96		**Volatile Characteristics** APPRECIABLE
Specific Gravity (H_2O = 1 at 39.2°F) AP 0.79	**Vapor Sp. Gr.** (Air = 1.0 at 60°-90°F) AP 1.1	**Solubility in Water** COMPLETE	**pH** N/AP
Hazardous Polymerization NOT EXPECTED TO OCCUR	**Other Chemical Reactivity** METHANOL FORMS AN AZEOTROPE WITH WATER.		**Stability** STABLE

Other Physical and Chemical Properties	MOLECULAR WEIGHT = 32.04; WATER CONTENT = LT 0.05 WT.% (ASTM D-1364); EVAPORATION RATE = 5.9 (IF N-BUTYL ACETATE = 1.0).
Appearance and Odor	CLEAR, COLORLESS LIQUID; FAINT, CHARACTERISTIC ALCOHOL ODOR; ODOR THRESHOLD = 55 PPM IN AIR; ODOR IS NOT A GOOD INDICATOR OF EXPOSURE LEVEL.
Conditions to Avoid	HEAT, SPARKS, OPEN FLAME, AND OXIDIZING CONDITIONS.
Materials to Avoid	STRONG OXIDIZING AGENTS; ALUMINUM, ZINC (GALVANIZED), OR ANY OTHER REACTIVE METAL WHICH WILL DISPLACE HYDROGEN; CERTAIN FORMS OF PLASTICS; AND RUBBER OR RUBBER-BASED COATINGS. ALUMINUM MAY FORM AN OXIDE SCALE ON PROLONGED CONTACT.
Hazardous Decomposition Products	EXCESSIVE HEATING AND/OR INCOMPLETE COMBUSTION WILL GENERATE HIGHLY POISONOUS CARBON MONOXIDE AND PERHAPS OTHER TOXIC VAPORS SUCH AS FORMALDEHYDE.

XI. Additional Precautions

Handling, Storage, and Decontamination Procedures	STORE AND TRANSPORT IN ACCORDANCE WITH ALL APPLICABLE LAWS. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME! KEEP CONTAINERS CLOSED AND PLAINLY LABELED! GROUND ALL DRUMS AND TRANSFER VESSELS WHEN HANDLING. USE ONLY WITH ADEQUATE VENTILATION! AVOID BREATHING VAPORS. STORE SAMPLES IN A COOL (LT 80°F.), WELL VENTILATED PLACE. THE STORAGE AREA AND VENTILATION EQUIPMENT SHOULD COMPLY WITH NFPA STANDARDS OF CLASS-IA/B FLAMMABLE LIQUIDS AND NEC REQUIREMENTS. "PETROLEUM DISTILLATE"-16 CFR 1500.14(B)(3). USE SPECIAL FEDERAL LABELING IF INTENDED, OR PACKAGED FOR USE IN THE HOUSEHOLD OR BY CHILDREN. DO NOT USE THIS MATERIAL AS A CLEANING SOLVENT. ISOLATE, VENT, DRAIN, WASH AND PURGE SYSTEMS OR EQUIPMENT BEFORE ANY REPAIR OR MAINTENANCE. REMOVE ALL IGNITION SOURCES. CHECK ATMOSPHERE FOR OXYGEN DEFICIENCES AND EXPLOSIVITY. USE ADEQUATE PERSONAL PROTECTIVE EQUIPMENT (SEE SECTION V.) AND OBSERVE PRECAUTIONS PERTAINING TO CONFINED SPACE ENTRY.
General Comments	INGESTION OF THIS PRODUCT, EVEN IN SMALL AMOUNTS, CAN CAUSE BLINDNESS AND DEATH. ONSET OF SYMPTOMS MAY BE DELAYED FOR 18-24 HOURS. TREATMENT PRIOR TO ONSET OF SYMPTOMS MAY BE LIFE-SAVING. METHANOL IS RAPIDLY ABSORBED, SO INDUCE VOMITING ASAP (WITHIN 30 MINUTES OF INGESTION) TO BE MOST EFFECTIVE. ETHANOL INHIBITS FORMATION OF TOXIC METABOLITES. IF INDICATED, START WITH A LOADING DOSE OF 7.6-10 ML/KG OF BODY WEIGHT OF 10% ETOH IN DSW OVER 30-60 MINUTES; MAINTENANCE DOSE OF 1.4 ML/KG TO ACHIEVE 100-130 MG/DL BLOOD ETOH LEVEL DURING ETHANOL THERAPY. (IF CHARCOAL IS ADMINISTERED, ETHANOL SHOULD BE ADMINISTERED INTRAVENOUSLY AND NOT ORALLY.) MAINTAIN CONTACT WITH THE POISON CONTROL CENTER DURING ALL ASPECTS OF THE DIAGNOSIS AND TREATMENT. REFER TO A.P.I.'S PUBLICATION 4524 ENTITLED "CLINICAL TOXICOLOGY OF THE ACUTE INGESTION OF METHANOL/HYDROCARBON BLENDS" FOR ADDITIONAL INFORMATION REGARDING MEDICAL MONITORING AND TREATMENT. SOME OF THE INFORMATION PRESENTED AND CONCLUSIONS DRAWN HEREIN ARE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE MIXTURE ITSELF.

- - - Note - - - Qualifications:

EQ = Equal	AP = Approximately	N/P = No Applicable Information Found
LT = Less Than	UK = Unknown	N/AP = Not Applicable
GT = Greater Than	TR = Trace	N/DA = No Data Available

XII. Regulatory Information

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III

SECTION 311/312 HAZARD CATEGORIES

IMMEDIATE (ACUTE) HEALTH HAZARD

DELAYED (CHRONIC) HEALTH HAZARD

FIRE HAZARD

SECTION 313

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 313 AND 40 CFR 372:

METHANOL (METHYL ALCOHOL)

TOXIC SUBSTANCES CONTROL ACT (TSCA)

ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA)

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF CERCLA:

	REPORTABLE QUANTITY (RQ), LBS
METHANOL (METHYL ALCOHOL)	5000#/2270KG

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 - PROPOSITION 65

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED BY THE STATE OF CALIFORNIA AS "KNOWN TO THE STATE TO CAUSE REPRODUCTIVE TOXICITY":

ETHANOL (ETHYL ALCOHOL)

XIII. Label Information

Manufacturer:
LYONDELL PETROCHEMICAL COMPANY
1221 MCKINNEY AVENUE, SUITE 1600
P.O. BOX 3646
HOUSTON, TEXAS 77253-3646

Telephone Numbers
EMERGENCY
800/424-9300 CHEMTREC
800/245-4532 HOT LINE
CUSTOMER SERVICE
713/652-7200 INFO ONLY

Use Statement:
FOR INDUSTRIAL USE ONLY
KEEP OUT OF REACH OF CHILDREN

Signal Word:
DANGER

Physical Hazards:

EXTREMELY FLAMMABLE
CORROSIVE TO SOME METALS

Health Hazards:

HIGH INGESTION HAZARD
MAY DAMAGE THE OPTIC NERVE
INHALATION HAZARD
PROLONGED EXPOSURE MAY DAMAGE THE LUNGS & LIVER
MAY CAUSE KIDNEY DAMAGE
HIGH SKIN CONTACT HAZARD
SEVERE EYE IRRITANT
SKIN IRRITANT - DEFATTING ACTION
MUCOUS MEMBRANE IRRITANT
MAY CAUSE LONG-TERM ADVERSE HEALTH EFFECTS

Precautionary Measures:
DO NOT HANDLE NEAR HEAT, SPARKS, OR OPEN FLAME.
SPILL/LEAK CAN CAUSE FIRE/EXPLOSION.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
DO NOT CONTACT WITH OXIDIZABLE MATERIALS.
USE ONLY WITH ADEQUATE VENTILATION/PERSONAL PROTECTION.
AVOID PROLONGED OR REPEATED BREATHING OF VAPOR.
AVOID CONTACT WITH EYES, SKIN, AND CLOTHING.
WASH THOROUGHLY AFTER HANDLING.
PREVENT CONTACT WITH FOOD, CHEWING, OR SMOKING MATERIALS.
DO NOT TASTE/SWALLOW.

DOT Information:
UN/NA ID Number- UN 1230
Hazard Class- 3 (FLAMMABLE LIQUID, POISON)
Proper Shipping- METHANOL OR METHYL ALCOHOL(RQ-5000/2270)

Instructions:
In case of fire, use-
ALCOHOL TYPE FOAM
DRY CHEMICAL
CO2
HALON
FOAM
WATERSPRAY

First Aid -Inhalation: IMMEDIATELY REMOVE FROM CONTAMINATED AREA TO FRESH AIR. KEEP INDIVIDUAL QUIET. FOR RESPIRATORY DISTRESS, GIVE AIR OR OXYGEN AND/OR ADMINISTER CARDIOPULMONARY RESUSCITATION (CPR). OBTAIN EMERGENCY MEDICAL ATTENTION.

-Eye Contact: IMMEDIATELY FLUSH EYES WITH PLENTY OF CLEAN LOW-PRESSURE WATER FOR AT LEAST 15 MINUTES. RETRACT EYELIDS OFTEN. OBTAIN EMERGENCY MEDICAL ATTENTION.

-Skin Contact: IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH AFFECTED SKIN THOROUGHLY WITH SOAP AND WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE; WASH OR DISCARD CONTAMINATED LEATHER SHOES/GLOVES.

-Ingestion: SEE EMERGENCY MEDICAL TREATMENT PROCEDURES AND SECTION XI. "GENERAL COMMENTS".

In case of spill, EXTREMELY FLAMMABLE LIQUID! RELEASE CAUSES AN IMMEDIATE FIRE/EXPLOSION HAZARD. REMOVE ALL IGNITION SOURCES AND SAFELY STOP FLOW OF SPILL. REMOVE ALL NON-ESSENTIAL PERSONNEL. USE PROPER PROTECTIVE EQUIPMENT. CONTAIN OR PREVENT FLOW TO SEWERS OR PUBLIC WATERS. BLANKET WITH AN APPROPRIATE FOAM. RESTRICT WATER USE FOR CLEANUP. IN URBAN AREAS, CLEANUP ASAP. IN NATURAL ENVIRONMENTS, SEEK ADVICE FROM ECOLOGISTS. THIS MATERIAL IS WATER-SOLUBLE AND MAY BIODEGRADE. COMPLY WITH ALL APPLICABLE LAWS. SPILLS MAY NEED TO BE REPORTED TO THE NATIONAL RESPONSE CENTER (800/424-8802). SPILLED MATERIAL AND ANY CONTAMINATED WATER OR SOIL MAY BE HAZARDOUS TO HUMAN OR OTHER LIFE.

Protective Equipment:

-Respiratory: DO NOT USE AIR-PURIFYING RESPIRATOR. ONLY NIOSH/MSHA APPROVED SUPPLIED A OR SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE

-Eye: EYE PROTECTION SUCH AS CHEMICAL SPLASH GOGGLES AND/OR FACE SHIELD MUST BE WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING

-Skin: WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN.

CITGO Petroleum Corporation
P. O. Box 3758
Tulsa, Oklahoma 74102

Material Safety Data Sheet

Generic Name: **CITGO Gas Engine Oils, SUS 450-2000** Date: April 4, 1997

Generic Code: GE-S1a

THIS GENERIC MSDS REPRESENTS THE FOLLOWING CITGO PRODUCTS:

Trade Name	Commodity Code No.:
CITGO Pacemaker GEO 315	32-004
CITGO Pacemaker GEO 340	32-003
CITGO Pacemaker GEO 1015	32-210
CITGO Pacemaker GEO 1020	32-212
CITGO Pacemaker GEO 1035	32-032
CITGO Pacemaker GEO 1215	32-037
CITGO Pacemaker GEO 1230	32-035
CITGO Pacemaker GEO 1240	32-036
CITGO Pacemaker GEO Special	32-054
CITGO Pacemaker GEO 715	32-033
CITGO Pacemaker GEO 740	32-034
CITGO Pacemaker GEO 1615	32-047
CITGO Pacemaker GEO 1630	32-045
CITGO Pacemaker GEO 1640	32-046
CITGO Pacemaker GEO 815	32-026
CITGO Pacemaker GEO 830	32-027
CITGO Pacemaker GEO 840	32-028
CITGO Pacemaker GEO 935	32-030

Synonyms:	Lubricating Oil	Technical Contact:	(918) 495-5933
CAS No.:	Mixture (Refer to Section 1)	Medical Emergency:	(918) 495-4700
CITGO Index No.:	1954	CHEMTREC Emergency:	(800) 424-9300

MATERIAL HAZARD EVALUATION

(Per OSHA Hazard Communication Standard [29 CFR 1910.1200])

Health Precautions: Protect exposed skin from repeated or prolonged exposure.

Safety Precautions: Do not store material in open or unmarked containers.

HMIS Rating[1] Health: 0 Flammability: 1 Reactivity: 0

[1]Hazard Rating: least-0, slight-1, moderate-2, high-3, extreme-4.
CITGO assigned these values based upon an evaluation conducted pursuant to NPCA guidelines. Use of an asterisk (*) indicates that the material may present chronic health effects.

NA-Not Applicable ND-No Data NE-Not Established

1.0 GENERIC COMPOSITION / COMPONENTS

Components	CAS No.	%	Hazard Data	
Refined Petroleum Oil(s)	Refer to Section 11	> 70	Oral LD_{50} (rat): Dermal and Eye:	> 5 g/kg Mild irritant.
Anti-oxidant , Dispersant (May include zinc dialkyldithiophosphate)	Mixture	< 20	Dermal: Eye:	Mild irritant. Irritant
VI Improver	Mixture	< 15	Dermal and Eye:	Mild irritant.
Pour Point Depressant	Mixture	< 1	Dermal and Eye:	Mild irritant.
Antifoam	Mixture	< 0.1	Dermal and Eye:	Mild irritant.

2.0 PHYSICAL DATA

PHYSICAL HAZARD CLASSIFICATION (Per 29 CFR 1910.1200)

Combustible	No	Flammable	No	Pyrophoric	No
Compressed Gas	No	Organic Peroxide	No	Reactivity	No
Explosive	No	Oxidizer	No	Stable	Yes

Boiling Point, 760 mm Hg, °C (°F):	~361 - 466 (~ 682 - 870)
Specific Gravity (60//60 °F) (H_2O = 1):	~ 0.87 - 0.89
Vapor Density (Air = 1):	> 1
% Volatiles by Volume:	Negligible
Melting Point, °C (°F):	NA
Vapor Pressure, mm Hg (25°C):	$< 1 \times 10^{-5}$ to ~ 4×10^{5}
Solubility in Water:	Negligible
Evaporation Rate (n-butyl acetate = 1):	< 1
pH of Undiluted Product:	NA
Appearance and Odor:	Light to dark amber liquid, slight petroleum odor.

3.0 FIRE AND EXPLOSION DATA

Flash Point, OC, °C (°F):	213 - 286 (415 - 547)		
Flash Point, CC, °C (°F):	170 - 232 (338 - 450)		
Fire Point, OC °C (°F):	238 - 314 (460 - 597)		
NFPA Rating[2]:	Health: 0	Flammability: 1	Reactivity: 0
Flammable Limits (% by volume in air):	Lower: ND	Upper: ND	
Extinguishing Media:	CO_2, dry chemical, foam, water fog.		
Special Fire Fighting Procedure:	None.		
Unusual Fire or Explosion Hazard:	Water may cause frothing.		

[2]Hazard Rating: least-0; slight-1; moderate-2; high-3; extreme-4.
CITGO assigned these values based upon an evaluation conducted pursuant to NFPA guidelines.

4.0 REACTIVITY DATA

Stability:	Stable.
Conditions Contributing to Instability:	Excessive heat.
Incompatibility:	Strong oxidants
Hazardous Decomposition Products (thermal, unless otherwise specified):	CO_2, (CO with incomplete combustion) and Trace oxides of phosphorus, sulfur and zinc.
Hazardous Polymerization:	Hazardous polymerization is not expected to occur.

5.0 SPILL, LEAK AND DISPOSAL PROCEDURES

Procedure if Material is Spilled:

- Remove all ignition sources.
- Isolate the area of the spill and restrict access to persons wearing protective clothing.
- Ventilate area of release, as necessary, to disperse vapors and mists.
- **Small Spills:** Absorb released material with non-combustible absorbent. Place into containers for later disposal. (See Waste Disposal section below.)
- **Large Spills:** Evacuate area in the event of significant spills. Evaluate exposure potential. Potential exposure may require the use of respiratory protection. Use protective clothing. Contain spill in temporary dikes to avoid product migration and to assist in recovery. Do not allow material to escape into sewers, ground water, drainage ditches or surface waters.
- Administer appropriate first aid.
- Report releases as required to the appropriate Federal, State and local authorities.

Waste Disposal:

- It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal.
- Determine compliance status with all applicable requirements prior to disposal.
- Contact the RCRA/Superfund Hotline at (800) 424-9346 or your regional US EPA office for guidance concerning case specific disposal issues.

Protective Measures During Repair and Maintenance of Contaminated Equipment:

- Refer to Section 7.0 - Special Protection Information.
- Drain and purge equipment, as necessary, to remove material residues.
- Use gloves constructed of impervious materials such as heavy nitrile rubber or neoprene and protective work clothing if direct, extended contact is anticipated.
- Eliminate heat and ignition sources.
- Wash exposed skin thoroughly with soap and water.
- Remove contaminated clothing. Launder before reuse.
- Keep unnecessary persons from hazard area.

6.0 HEALTH HAZARD DATA

Health Hazard Classification (Per 29 CFR 1910.1200):

Highly Toxic	No	Sensitizer	No
Toxic	No	Reproductive Effects	No
Corrosive	No	Mutagen	No
Irritant	No	Target Organ	No

6.0 HEALTH HAZARD DATA (continued)

Carcinogen:

Product/Component	CAS No.	Conc. (%)	NTP	IARC	OSHA	Other
CITGO Gas Engine Oils, SUS 450-2,000	Mixture	100	No	No	No	No

Toxicity Summary: Generally of a low order of toxicity.

Major Route of Entry: Inhalation of incidental mists or vapors and dermal contact with liquid.

Acute Exposure Symptoms:

Inhalation: Over exposure to mists or fumes at elevated temperatures cause drowsiness, dizziness, headache, nausea or lung irritation. Exposures well over applicable workplace exposures levels can cause lung damage.

Dermal: Products represented by this MSDS can cause mild transient skin irritation in some individuals.

Eye: Products represented by this MSDS can cause mild to moderate eye irritation in some individuals.

Ingestion: If swallowed, gastrointestinal discomfort, diarrhea, and headache may occur.

Injection: Injection under the skin, in muscle or into the blood stream may cause irritation, inflammation (erythema), swelling (edema) or severe, permanent tissue damage.

Chronic Exposure Symptoms:

Prolonged and/or frequent contact may cause drying, cracking (dermatitis) or folliculitis.

Other Special Effects:

None expected.

Medical Conditions Aggravated by Exposure:

None.

First Aid and Emergency Procedures for Acute Effects:

Inhalation: Move victim to fresh air. If victim is not breathing, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately.

Dermal: Remove contaminated clothing. Wash exposed skin with soap and water. Launder clothing before use. Seek medical attention if tissue appears damaged or if irritation persists.

Eyes: Flush eyes with cool water while occasionally lifting and lowering eyelids. Remove contact lenses if worn. Seek medical attention if excessive tearing, irritation or pain persists.

Ingestion: Induce vomiting only upon the advice of a physician. Never give anything by mouth to a person who is not fully conscious. Seek medical attention immediately.

Injection: Injection under the skin, in muscle or into the blood stream is a medical emergency. Seek medical attention immediately.

6.0 HEALTH HAZARD DATA (continued)

Notes to Physician:

The viscosity range of the products represented by this MSDS is 450 to 2,000 SUS at 100° F. If ingested, there is a risk of aspiration of vomitus into the lungs. Removal of material by emesis or lavage may be considered. However, protection of the airway is recommended.

Subcutaneous or intramuscular injection requires prompt surgical debridement.

7.0 SPECIAL PROTECTION INFORMATION

Ventilation Requirements:

Use in well ventilated area. In confined space, mechanical ventilation may be required to keep levels of certain components below applicable workplace exposure levels as evaluated by designated and properly trained personnel.

Applicable Workplace Exposure Levels:

Chemical Component	ACGIH TLV TWA ppm (mg/M^3)	ACGIH TLV STEL/ Ceiling (C) ppm (mg/M^3)	ACGIH TLV Skin notation?	OSHA PEL TWA ppm (mg/M^3)	OSHA PEL STEL/ Ceiling (C) ppm (mg/M^3)	OSHA PEL Skin notation?
Oil Mist, Mineral	(5)	(10)	No	(5)	NE	No

Specific Personal Protective Equipment:

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations.

Respirator: At elevated temperatures, vapor or mist concentrations above applicable workplace exposure levels may be expected. Use a NIOSH or MSHA approved organic vapor/mist chemical cartridge respirator when elevated airborne concentrations are anticipated.

Eyes: Safety glasses or chemical splash goggles if splashing is anticipated.

Dermal: Use gloves constructed of impervious materials such as heavy nitrile rubber or neoprene if frequent or prolonged contact is anticipated.

Clothing or Equipment: Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder contaminated work clothes before reuse.

8.0 TRANSPORTATION AND SPECIAL PRECAUTIONS

Storage: Store in a cool, dry, well ventilated area. Do not apply high heat or flame to container. Keep separate from strong oxidizing agents.

Caution: Empty containers may contain product residue which could include flammable vapors. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.

8.0 TRANSPORTATION AND SPECIAL PRECAUTIONS (continued)

DOT Information:

Proper Shipping Name:	Petroleum Lubricating Oils
Hazard Class:	Non-Hazardous
Hazard Identification No.:	None assigned
Packaging Group:	None assigned
Placard:	None
Compatibility Category:	Group 33
CHRIS Code:	OLB

9.0 ENVIRONMENTAL DATA

Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 313 - Toxic Chemicals:

This product is not known to contain any components in concentrations above *de minimis* levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA.

Section 311/312 - Hazard Categories:

This product may meet one or more of the criteria for the hazard categories defined in 40 CFR Part 370 as established by Sections 311 and 312 of SARA as indicated below:

Immediate (Acute) Health Hazard:	No	Sudden Release of Pressure Hazard:	No
Delayed (Chronic) Health Hazard:	No	Reactive Hazard:	No
Fire Hazard:	No		

Section 302 - Extremely Hazardous Substances:

This product is not known to contain any components in concentrations greater than one percent that are listed as Extremely Hazardous Substances in 40 CFR Part 355 pursuant to the requirements of Section 302(a) of SARA.

Clean Water Act (CWA):

Under the CWA, discharges of crude oil and petroleum products to surface water without proper Federal and State permits must be reported immediately to the National Response Center at (800) 424-8802.

Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) Section 102 Hazardous Substances:

As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance.

California Proposition 65 (The Safe Drinking Water and Toxics Enforcement Act):

This material contains components that are known to the State of California to be:

Carcinogenic: No Reproductive Hazard: No

New Jersey Worker and Community Right-to-Know Act:

Petroleum Oil

Toxic Substances Control Act (TSCA):

Reported in TSCA Inventory as:	Product	Components
CITGO Gas Engine Oils SUS 450 - 2,000		X

10.0 LABELING

NOTE:

This product has been determined not to be a physical or a health hazard as defined by the OSHA Hazard Communication Standard.

Avoid prolonged skin contact with used motor oil. Continuous contact has caused skin cancer in laboratory animals. After draining oil, wash skin thoroughly with soap and water. Launder contaminated clothing before reuse.

11.0 REFINED PETROLEUM OILS

The products represented by this MSDS contains one or more of the following base oils:

Chemical / Common Name	CAS No.
Solvent Refined Light Paraffinic Distillate	64741-89-5
Solvent Refined Heavy Paraffinic Distillate	64741-88-4
Solvent Dewaxed Heavy Paraffinic Distillate	64742-65-0
Hydrotreated Light Paraffinic Distillate	64742-55-8
Hydrotreated Neutral Lubricating Oil	72623-87-1
Hydrotreated High Viscosity Neutral Lubricating Oil	72623-85-9

MATERIAL SAFETY DATA SHEET
COASTAL 1760-C

1	HMIS HEALTH
0	HMIS FLAMMABILITY
0	HMIS REACTIVITY
B	HMIS PERSONAL PROTECTION

SECTION I - IDENTIFICATION

MANUFACTURER'S NAME..... Coastal Fluid Technologies, Inc.
P. O. Box 820
Abbeville, Louisiana 70511
PHONE NUMBER..... (318) 898-0001
EMERGENCY PHONE NUMBER... (318) 898-0001
EFFECTIVE DATE..... 3/21/1991
TRADE NAME..... COASTAL 1760-C
CHEMICAL FAMILY..... AMINE SOLUTION
CAS NUMBER..... Blended Material
CHEMICAL FORMULA..... Confidential Business Information

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	%	TLV (Units)	PROD. CAS #
NOT HAZARDOUS AS DEFINED IN 29 CFR 1910.1200		NO DATA	NO DATA

SECTION III - PHYSICAL DATA

FREEZING POINT (F)..... - 5 F
VAPOR PRESSURE (mm Hg)... N/D
VAPOR DENSITY (Air=1).... >1
SOLUBILITY IN H2O..... Soluble
APPEARANCE/ODOR..... Hazy solution, Amine odor
SPECIFIC GRAVITY (H2O=1). 1.045
PH..... 10.4 to 11.0

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT..... > 212 F
LOWER FLAME LIMIT..... N/A
HIGHER FLAME LIMIT..... N/A
EXTINGUISH MEDIA..... Not a flammable or combustible material.
UNUSUAL FIRE HAZARD..... Containers may explode from internal pressure if confined to fire. Cool with water. Keep unnecessary people away.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE.... No Data

ROUTES OF ENTRY	INHALATION?	SKIN?	INGESTION?
	Unlikely to occur	Irritant	Irritant

HEALTH HAZARDS ..... ACUTE: Vapors or liquid may be irritating to skin, eyes, or mucous membranes. Avoid inhalation or skin/eye contact.

CARCINOGENICITY	NTP?	IARC MONOGRAPHS?	OSHA REGULATED
No	Not Listed	No	No

OVER EXPOSURE EFFECTS.... Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact.

FIRST AID PROCEDURES..... In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person.

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... Product is Stable
CONDITIONS TO AVOID..... None
INCOMPATIBLE MATERIALS... Oxidizers or Oxidizing Materials.
DECOMPOSITION PRODUCTS... From Fire; Smoke, Carbon Dioxide, Carbon Monoxide, and Oxides of Nitrogen.
HAZARDOUS POLYMERIZATION. Will Not Occur
POLYMERIZATION AVOID..... None

SECTION VII - SPILL OR LEAK PROCEDURE

FOR SPILL ..... In case of spillage, absorb with inert material and dispose of in accordance with applicable regulations.

WASTE DISPOSAL METHOD.... EPA approved waste disposal site. Follow applicable local, state, and federal regulations.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION... NIOSH approved organic vapor mask Required in closed areas
VENTILATION..... Desired
MECHANICAL EXHAUST..... Required in closed areas
LOCAL EXHAUST..... Desired
PROTECTIVE GLOVES..... NIOSH approved chemical resistant gloves suitable for materials shown in Section II.
EYE PROTECTION..... Use chemical goggles or full face shield.
OTHER PROTECTIVE EQUIPMENT..... Recommended

SECTION IX - SPECIAL HANDLING

HANDLING AND STORAGE..... No Special

PRECAUTIONARY MEASURES... Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown in Section V.

HAZARD CLASS..... None
DOT SHIPPING NAME..... NOT REGUALTED
REPORTABLE QUANTITY (RQ). None
UN NUMBER..... None
NA #..... None
PACKAGING SIZE..... All

SECTION X - REGULATORY

EPA ACUTE..... Yes
EPA CHRONIC..... No
EPA IGNITABILITY..... No
EPA REACTIVITY..... No
EPA SUDDEN RELEASE OF PRESSURE..... No

CERCLA RQ VALUE..... None

SARA TPQ..... None
SARA RQ..... None
SECTION 313..... Not listed

EPA HAZARD WASTE #..... None
CLEANAIR..... No
CLEAN WATER..... No

FOOT NOTES N/A - not applicable N/D - no data available
< - means less than > - means greater than
App. - approximate Est. - estimated

PREPARED BY:..... David Trahan - CFT, 318/898-0001
REVISED DATE..... 3/21/1991

MATERIAL SAFETY DATA SHEET
COASTAL 1760-C

TRADE NAME..... COASTAL 1760-C

SIGNAL WORD..... CAUTION!

STATEMENT OF HAZARD..... CAUSES IRRITATION

Date Issued: 03/08/91
Supercedes: 01/04/91

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:
02353 TEXACO ANTI-FREEZE COOLANT

Chemical Name and/or Family or Description:
Antifreeze

Manufacturer's Name and Address:
Texaco Lubricants Co. Div of TRMI
P.O. Box 52332 Houston, TX 77052

Telephone Numbers:
TRANSPORTATION EMERGENCY Company: (914) 831-3400 CHEMTREC: (800) 424-9300
HEALTH EMERGENCY Company: (914) 831-3400
GENERAL MSDS ASSISTANCE (914) 838-7204
TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (914) 838-7509
Chemicals: (512) 459-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product and/or Component(s) Carcinogenic According to:	OSHA	IARC	NTP	OTHER	NONE
	–	–	–	–	X

Composition:

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
* 1,2-ethanediol	107211	50ppm Ceiling-OSHA 50ppm Ceiling-ACGIH	80.00 - 94.99
Water deionized	7732185	None Established	1.00 - 3.99

Product is hazardous according to OSHA (1910.1200).
* Component(s) is hazardous according to OSHA or one or more state Right-to-Know laws.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance and Odor: Fluorescent green liquid; mild odor

WARNING STATEMENT

DANGER! HARMFUL OR FATAL IF SWALLOWED
MAY CAUSE KIDNEY AND NERVOUS SYSTEM DAMAGE
MAY CAUSE EYE IRRITATION
KEEP OUT OF REACH OF CHILDREN AND PETS

ATTENTION! POSSIBLE BIRTH DEFECT HAZARD
CONTAINS ETHYLENE GLYCOL WHICH MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA

HMIS				NFPA			
Health:	2	Reactivity:	0	Health:	1	Reactivity:	0
Flammability:	1	Special:	-	Flammability:	1	Special:	-

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	–

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

3. HAZARD IDENTIFICATION (CONT)

Effects of Overexposure

Acute

Eyes:
May cause irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Skin:
Prolonged or widespread skin contact may result in the absorption of potentially harmful amounts of material.

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Inhalation:
Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Ingestion:
Toxic. Causes headache, weakness, confusion, loss of coordination, dizziness, difficulty walking, nausea, vomiting, decreased blood pressure, increased heart rate, pulmonary edema, kidney failure, unconsciousness, convulsions, and coma. Symptoms may be delayed. Severe poisoning may cause death.

Sensitization Properties:
Unknown.

Chronic:
Repeated ingestion may cause kidney damage.

Medical Conditions Aggravated by Exposure:
Repeated overexposure may aggravate existing kidney disease.

Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:
Ethylene glycol and diethylene glycol are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup). Symptoms include staggering, slurred speech, loss of coordination, confusion, faintness, nausea, vomiting, increased heart rate, difficulty breathing, difficulty seeing, convulsions, and collapse. Symptoms may be delayed. Decreased urine output, kidney failure, and nervous system damage may also occur.

4. FIRST AID MEASURES

Eyes:
Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:
Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:
If patient is conscious and can swallow, give two glasses of water (16 oz.) Induce vomiting immediately as directed by medical personnel. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

4. FIRST AID MEASURES (CONT)

Inhalation:
If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.

Other Instructions:
NOTE TO PHYSICIAN: Ethylene or Diethylene Glycol poisoning may initially produce behavior changes, drowsiness, vomiting, diarrhea, thirst,and convulsions. Renal damage or failure with metabolic acidosis are late signs of poisoning. Immediate treatment, may reduce toxic effects, supplemented, if necessary with hemodialysis. Intravenous Ethanol in Sodium Bicarbonate solution is a recognized antidote; other antidotes have been reported for Ethylene Glycol poisoning. Contact a poison center for further treatment information.

5. FIRE-FIGHTING MEASURES

Ignition Temp. Degrees F.: N.D. Flash Point Degrees F. (Method): 244 F (PM)
Flammable Limits (%) Lower: 3.2 Upper: N.D.

Recommended Fire Extinguishing Agents And Special Procedures:
According to NFPA Guide, use water spray, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:
None

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills Call: CHEMTREC (800) 424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:
Ventilate area. Avoid breathing vapor. Use self-contained breathing apparatus or supplied air for large spills or confined areas. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

7. HANDLING AND STORAGE

Precautions to be Taken in Handling and Storage:
Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:
Chemical-type goggles or face shield recommended to prevent eye contact.

Skin Protection:
Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned at least once a week.

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT)

Respiratory Protection:
Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, use respirator approved by MSHA or NIOSH as appropriate. Supplied air respiratory protection should be used for cleaning large spills or upon entry into tanks, vessels, or other confined spaces. See below for applicable permissible concentrations.

Ventilation:
Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:
None established for this product; refer to Section 2 for component permissible concentration.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Fluorescent green liquid; mild odor
Boiling Point (Degrees F.): 388 — Percent VOC: 100
Specific Gravity: 1.13 (H2O=1) — Vapor Density: 2.14 Air=1
pH of undiluted product: 11.0 — Solubility in Water: Sol.
Vapor Pressure: LT 0.1 mmhg
Viscosity: 24 cP @ 20 C — Other: -

10. STABILITY AND REACTIVITY

This Material Reacts Violently With: (If others is checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
-	-	-	Y	-	-

Comments:
Do not add or formulate with amines. See Section 15, OTHER INFORMATION.

Products Evolved When Subjected to Heat or Combustion:
Carbon monoxide and carbon dioxide may be formed on burning in limited air supply. Boron, molybdenum and silicon compounds may also be released.

Hazardous Polymerizations:	OCCUR	DO NOT OCCUR
	-	X

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION(ANIMAL TOXICITY DATA)
Median Lethal Dose (LD50 LC50) (Species)
Oral: Animal data does not reflect human toxicity; See Sections 3 & 15
Inhalation: N.D.
Dermal: believed to be > 3 g/kg (rabbit); practically non-toxic
Irritation Index, Estimation of Irritation (Species)
Skin: believed to be 0.5-1.0/8.0 (rabbit); slightly irritating
Eyes: believed to be 15-25/110 (rabbit); slightly irritating
Sensitization: N.D.
Other:
Ethylene glycol has been shown to cause birth defects in laboratory animals.
Continuous ingestion of a diet containing 1% or 2% ethylene glycol for two years produced liver and kidney damage, and bladder stones in rats.

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than

12. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

REMARKS

To prevent contamination of drinking water supplies, & poisoning of children, aquatic life, wildlife, and farm and domestic animals, used antifreeze solution, regardless of quantity, should never be discarded onto the ground, into surface waters, or into storm sewers.

13. TRANSPORT INFORMATION

TRANSPORTATION

DOT: PROPER SHIPPING NAME: N.D.

IMDG: PROPER SHIPPING NAME: N.D.

IATA: PROPER SHIPPING NAME: N.D.

TDG: PROPER SHIPPING NAME: N.D.

14. REGULATORY INFORMATION

A. SARA TITLE III

Title III Section 302/304 Extremely Hazardous Substance:

Component	CAS No.	Percent	RQ (lbs)	TPQ (lbs)
NONE				

CERCLA Section 102(a) Hazardous Substance

Component	CAS No.	Percent	RQ (lbs)
Trisodium orthophosphate	10101890	0.1-0.99	5000
Disodium phosphate	7558794	0.1-0.99	5000

Title III Section 311 Hazard Categorization

Acute	Chronic	Fire	Pressure	Reactive	Not Applicable
X	X	-	-	-	-

Title III Section 313 Toxic Chemicals

Component	CAS No.	Percent
1,2-Ethanediol	107211	80-94.99

B. WHMIS CLASSIFICATION

CLASS D, DIV 2, SUBDIV A

C. MICHIGAN CRITICAL MATERIALS

No critical materials present.

15. OTHER INFORMATION

Acute or chronic oral consumption of products containing ethylene glycol can produce significant adverse health effects, including death, in humans and animals. Keep out of reach of children and pets. Such products should not be used in potable (drinking) water systems or other systems where contamination of potable water supplies is possible (e.g., recreational vehicles, winterizing potable water systems).

Do not add or formulate with amines. The nitrites in this product may

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

combine with amines to form nitrosamines. Many nitrosamines have been found to cause cancer in laboratory animals.

Texaco recommends that all exposures to this product be minimized by strictly adhering to recommended occupational controls procedures to avoid any potential adverse health effects.

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILTIY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Date: 03-08-91 _ New X Revised, Supersedes: 01-04-91
Date Printed: 04-26-91

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

18. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT

02353 TEXACO ANTI-FREEZE COOLANT

WARNING STATEMENT

DANGER! HARMFUL OR FATAL IF SWALLOWED
MAY CAUSE KIDNEY AND NERVOUS SYSTEM DAMAGE
MAY CAUSE EYE IRRITATION
KEEP OUT OF REACH OF CHILDREN AND PETS

ATTENTION! POSSIBLE BIRTH DEFECT HAZARD
CONTAINS ETHYLENE GLYCOL WHICH MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA

PRECAUTIONARY MEASURES

DO NOT DRINK ANTIFREEZE OR SOLUTION
AVOID CONTACT WITH EYES
AVOID BREATHING MIST OR VAPOR
WASH THOROUGHLY AFTER HANDLING

FIRST AID

INGESTION:
If patient is conscious and can swallow, give two glasses of water (16 oz.) Induce vomiting immediately as directed by medical personnel. Get immediate medical attention. Never give anything by mouth to an unconscious or convulsing person.

INHALATION:
If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or symptoms persist.

EYE CONTACT:
Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

SKIN CONTACT:
Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

NOTE TO DOCTOR:
NOTE TO PHYSICIAN: Ethylene or Diethylene Glycol poisoning may initially produce behavior changes, drowsiness, vomiting, diarrhea, thirst,and convulsions. Renal damage or failure with metabolic acidosis are late signs of poisoning. Immediate treatment, may reduce toxic effects, supplemented, if necessary with hemodialysis. Intravenous Ethanol in Sodium Bicarbonate solution is a recognized antidote; other antidotes have been reported for Ethylene Glycol poisoning. Contact a poison center for further treatment information.

FIRE

In case of fire, use foam, dry chemical, or CO2. Use water spray to keep containers cool.

Chemical/Common Name	CAS No.	Range in %
* 1,2-ethanediol	107211	80.00 - 94.99
Water deionized	7732185	1.00 - 3.99

Product is hazardous according to OSHA (1910.1200).
* Component(s) is hazardous according to OSHA or one or more state Right-to-Know laws.
Not classified as a hazardous material by DOT definition.

HMIS				National Fire Protection Association			
Health	: 2	Reactivity	: 0	Health	: 1	Reactivity	: 0
Flammability	: 1	Special	: -	Flammability	: 1	Special	: -

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested
< - Less Than > - Greater Than

16. PRODUCT LABEL (CONT)

Manufacturer's Name: Texaco Lubricants Co. Div of TRMI
P.O. Box 52332 Houston, TX 77052

TRANSPORTATION EMERGENCY Company: (914) 831-3400
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400