NN1-011

CONTINUED

C-138

YEAR(S):

2006-1997

District I - (505) 393-6161 I.O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 Rio Brazos Road c, NM 87410ء۔۔۔

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street

Santa Fe, New Mexico 87505 (505) 827-7131

Originated 8/8/9

Form C-13

Submit Origina Plus 1 Cop to appropriat District Offic

REQUEST FOR APPROVAL TO ACCEPT S 1. RCRA Exempt: Non-Exempt: 12. 7.20 8:45 Au. Verbal Approval Received: Yes No 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	4. Generator BJ Survices
1. RCRA Exempt: Non-Exempt: 12. 7.50 8:45 Au. Verbal Approval Received: Yes No 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	
Verbal Approval Received: Yes No 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	
2. Management Facility Destination Facility Landfarm #2	5. Originating Site WASH BAY RACK
. 5704 330 334 1	6. Transporter Environtech
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Maxico
7. Location of Material (Street Address or ULSTR)	3250 Southside River Rep FARMITE ton, Ny.
9. Circle One:	
 A. All requests for approval to accept oilfield exempt wastes will be accome Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accome PROVE the material is not-hazardous and the Generator's certification of listing or testing will be approved. 	npanied by necessary chemical analysis to of origin. No waste classified hazardous by
All transporters must certify the wastes delivered are only those consigned for	or transport.
BRIEF DESCRIPTION OF MATERIAL: Continuation of work boy solids	disposse & remediation
BOL # 12499 40 cy LF#Z cell 138-19 40	
SIGNATURE: Waste Management FacilityAuthorized Agent Harlan M. Brown	tor at the end of the haul) ————————————————————————————————————

TITLE: Environmental Geologist

APPROVED BY:

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (506) 334-6178 Fax (505)334-6170

JENNIFER A. SALISBURY CABINET SECRETARY

GARY E. JOHNSON GOVERNOR

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address: BJ Services 3250 South Ado River Bood Farmington, New Munic 87401 3. Originating Site (name): BJ Services (Main Yard) 3250 South Side River Road Attach list of originating sites as appropriate 4. Source and Description of Wash BAY Solids. 2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 IIS Hwy 64, Farmington, NM 87401 Location of the Waste (Street address &/or ULSTR): SAME - WASH BAY Solids FACILITY Attach list of originating sites as appropriate 4. Source and Description of Waste Continuation Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 IIS Hwy 64, Farmington, NM 87401 Location of the Waste (Street address &/or ULSTR): SAME - WASH BAY Solids FACILITY Attach list of originating sites as appropriate 4. Source and Description of Waste Continuation Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 IIS Hwy 64, Farmington, NM 87401 Location of the Waste (Street address &/or ULSTR): SAME - WASH BAY Solids FACILITY
COMITIVE ATTICLE
, 5
I, Les Baugh representative for: (Print Name) do hereby certify that,
PT (Print Name)
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 MSDS Information
RCRA Hazardous Waste Analysis Reaffice Ma Tion State Ment
X Chain of Custody
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): Jus Bauf
Name (Original Signature): Saugh
Date: /2/7/03



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 2/17/6

Printed Name Les Baugh

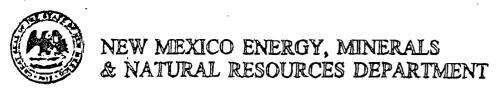
Title / Agency Tacitities Supervision

Address 3250 Southside River Road

FARMINGTON New Mexico 87401

Signature

Date /2/7/06



OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 [506] 334-6178 FAX (505)334-6170

GARY E. JOHNSON GOVERNOR

#:9972726308

JENNIFER A. SALISBURY CABINET SECRETARY

12- 7-00;11:45AM

CERTIFICATE OF WASTE STATUS

1. Generator Nama and Address:	2. Destination Name: Envirotech Inc.
3050 South side live 1000	Soil Remediation Remediation Facility
Farmington, New Mexico 87 401	Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name):	Location of the Waste (Street address &/or ULSTR):
BJ Services (Main Yard) 3250 Southeile River Road	Same-Wash Bay Solids Facility
PARM ington, New Mexico 87401	,
Attach list of originating sites as appropriate 4. Source and Description of Waste.	
4. Source and Description of Waste.	$\leq h_{d}$
CONTINUATION of WASH BAG	201147.
· ·	4
BI Services	representative for:
P.T. (Print Name)	
DJ Services	do hereby certify that, ry Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described	
	,, ,
	IPT oilfield waste which is non-hazardous by characteristic by product identification
and that nothing has been added to the exempt or not	n-exempt non-hazardous waste defined above.
For NON-EXEMPT waste the following documental MSDS Information	tion is attached (check appropriate items): X Other (description):
RCRA Hazardous Waste Analysis	Reaffir MA TION Statement
Chain of Custody	DEAFTIC MA HON STATE OF THE
	A CONTRACTOR OF THE CONTRACTOR
	laturally Occurring Radioactive Material (NORM) pursuant
to 20 NMAC 3.1 subpart 1403.C and D.	
Name (Original Signature): Jus Bau	1
Title: <u>Facilities Superieson</u>	
Date: /1/7/00	



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/

Printed Name

Les Baugh

Title / Agency

FACILITIES Supervisor

Address

3250 Southeide River Road

FARMINGTON NEW Mexico 879

Signature

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: Envirtect, clus	Fax Number: 632 - 1865
Attn: Harlon Brown	Number of Pages:
From: Les Bough - Farmington	Including Cover: 3
Comment:	

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



SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID:

B J Services Wash Bay Sludge Project #:
Date Reported:

502601 02-10-00

Lab ID#:
Sample Matrix:
Preservative:

G810 Sludge Date Sampled: Date Received: 02-10-00 02-10-00

Condition:

Cool and Intact

Date Analyzed: Chain of Custody: 02-10-00

7672

Parameter

Result

IGNITABILITY:

Negative

CORROSIVITY:

Negative

pH = 8.80

REACTIVITY:

Negative

L. Openin

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

Mustin M Dae Review



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

	Composition	Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(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.

Alem L. Openen

Mistering Watters
Review



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
Pentachiorophenol	ND	0.020	100

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery	<u>.</u>
	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.

Allen h. Open

'Review



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:	· · · · · · · · · · · · · · · · · · ·	Characteristic Leaching Procedure, Sory Funnel Liquid-Liquid Extraction, S		
-	•	matics and Cyclic Ketones, SW-846,		
Note:	Regulatory Limits base	ed on 40 CFR part 261 Subpart C sec	tion 261.24, July 1, 1992.	

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

Den L. Quem Analyst

Misterie My Wasters
Review



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

		Det.	Regulatory
	Concentration	Limit	Level
Parameter	(mg/L)	(mg/L)	(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



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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

		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(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.

Deur L. agenun Analyst

Pristing Walters
Review



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

Darameter	Concentration	Detection Limit	Regulatory Limits
Parameter	(mg/L)	(mg/L)	(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 Acce	ptance 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.

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

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



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

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

		Duplicate		
	Sample	Sample	Detection	
	Result	Result	Limits	Percent
Parameter	(mg/L)	(mg/L)	(mg/L)	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



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.

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

Comments:

QA/QC for samples G810 - G811 and G836.

Analyst P. Ofercan



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	Concentration	Detection	Regulatory
Parameter	(mg/L)	Limit (mg/L)	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.

Allen L. Gluen

Review



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.

Allen L. Collece

Mustini M Waeters
Review



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 Question



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 L. Clauren



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

Client:	OA/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



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.

Allen L. Geen

/ Mistini M Walters Review



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)		Method Blank	Detectio Limit		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%

					Acceptance Range
THE COURSE WAS COME.			, Control of Control	, , , , , , , , , , , , , , , , , , ,	
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

CHAIN OF CUSTODY RECORD

Client / Project Name		Project Location 32 SO Se the ide	side River Bel Dog.			ANAL	YSIS / PAF	ANALYSIS / PARAMETERS		~
Sampler:		Client No.		SI	4 \$		 		Remarks	
HARLAN M. Brown	لاد	950 26	10-		H					
		Lab Number	Sample	tuoO	3/m					
Identification Date	Time		Matrix							
Slady 2 2.18.00	25:8 00	0/85	Sludge	, I						-
7			D			·				
					-					
1										
Relinquished by: (Signature)			Date Time R	Received by: (Signature)	ature)	77			Date 7.10 (CC)	Time 10:09
Relinquished by: (Signature)			 	Received by: (Signature)	ature)					
Relinquished by: (Signature)			CC.	Received by: (Signature)	ature)					
			EDVIROTECH INC		2			Sam	Sample Receipt	
					A Law Sales				>-	N N
			5796 U.S. Highway 64 Farmington, New Mexico 87401	Highway 64 w Mexico 872	. 5			Received Intact	Z	
			(505)	(505) 632-0615				Cool - Ice/Blue Ice	Ice Z	

District I - (505) 393-6161 P.C. Box 1980. Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 Rio Brazos Road c, NM 87410 مدر 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

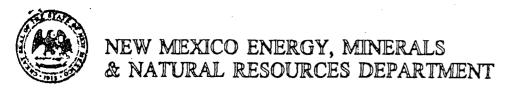
Originated 8/8/95

Mortymac Kieling

Submit Original Plus I Čopy to appropriate District Office

(303) 827-7131				
		Env.	JN:	
	-	101		

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE			
1. RCRA Exempt: Non-Exempt: 12.7.00	4. Generator BJ Survices			
Verbal Approval Received: Yes No No	5. Originating Site Wash Bar 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 Rep FARMington, NY			
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 BRIEF DESCRIPTION OF MATERIAL:	or transport.			
Continuation of work bay solids TELP A Mached.	DEC 2000 PECEIVED CLOOM DIV DIST. 8 erator at the end of the haul) ————————————————————————————————————			
Estimated Volume — cy Known Volume (to be entered by the ope	erator at the end of the haul) ————————————————————————————————————			
SIGNATURE: Handfarm M Waste Management FacilityAuthorized Agent	DATE: 12./5.00			
Harlan M. Brown	EPHONE NO			
(This space for State Use)				
APPROVED BY: Martyn Phy- TITLE: Emiroum				



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

Generator Name and Address:	2. Destination Name:
BJ Scruices River Road	Envirotech Inc.
3350 South side / live book	Soil Remediation Remediation Facility
farmington, New Mexico 87401	Landfarm #2, Hilltop,New Mexico
	5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name):	Location of the Waste (Street address &/or ULSTR):
BJ Servicez (Main Yard) 3250 Southerla River Road	SAME - WASh BAY Solids FACILITY
3720 Sentreise Kings Kong	SAME - WAIN DAY STILL
FARM ington, New Mexico 87401	
Attach list of originating sites as appropriate	
4. Source and Description of Waste	
CONTINUATION of WASH BAY	Solids.
	4
1 2 1	
BJ Services (Print Name)	representative for:
(Priht Name)	
BJ Services	do hereby certify that,
according to the Resource Conservation and Recover	ry Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described	waste is: (Check appropriate classification)
EVELENT WELL I A SIGN EVEL	env august and a state to a second and the second and
	IPT oilfield waste which is non-hazardous by characteristic
analysis of	by product identification
and that nothing has been added to the exempt or no	n-exempt non-hazardous waste defined above.
and that nothing has been added to the exempt of her	Toxempt non nazaroods waste defined above.
For NON-EXEMPT waste the following documenta	tion is attached (check appropriate items):
MSDS Information	Other (description):
★ RCRA Hazardous Waste Analysis	Reaffirmation Statement
Chain of Custody	REATTIF MA HON STALEMENT
This waste is in compliance with Regulated Levels of N	Naturally Occurring Radioactive Material (NORM) pursuant
to 20 NMAC 3.1 subpart 1403.C and D.	to the state of th
to 20 MMAC 3.1 Saupart 1 400.0 and 0.	
Nama (Original Signatura):	$A_{\cdot \cdot}$
Name (Original Signature):	0
J. 'O'+, C 'A.	
Title: <u>Facilities</u> Superieson	
12/2/02	
Date: /2/7/00	



<u>REAFFIRMATION OF WASTE STATUS / NON-EXEMPT WASTE</u>

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

Tacitities Supervisor

Address

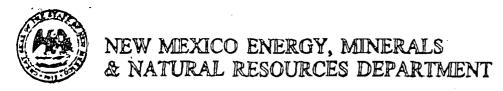
3250 Southeide River Road

Farmington Hew Mexics 87401

Signature

Signature

Date



OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (506) 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 p. D.	Envirotech Inc.
3550 South side River Road	Soil Remediation Remediation Facility
Farmington, New Mexico 87401	Landfarm #2, Hilltop, New Mexico
3. Originating Site (name):	5796 US Hwy 64, Farmington, NM 87401 Location of the Waste (Street address &/or ULSTR):
AT Convice (Main Yourd)	
BJ Services (Main Yard) 3256 Southerda River Road	Same - Wash Bay Solids Facility
FARM ington, New Mexico	
87401	•
Attach list of originating sites as appropriate	, , , , , , , , , , , , , , , , , , ,
4. Source and Description of Waste	
CONTINUATION OF WASH BA	4 20/145.
	•
•	
·	
BI Services	representative for:
(Print Name)	
BJ Services	do hereby certify that,
according to the Resource Conservation and Recove	ery Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described	waste is: (Check appropriate classification)
THE STATE OF THE S	ARDY alifald warms which in one howardoughy characteristic
	MPT oilfield waste which is non-hazardous by characteristic or by product identification
andrysis o	s by product identification
and that nothing has been added to the exempt or no	on-exempt non-hazardous waste defined above.
For NON-EXEMPT waste the following document	ation is attached (check appropriate items):
MSDS Information	Other (description);
RCRA Hazardous Waste Analysis	Reaffir MATION Statement
Chain of Custody	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
This waste is in compliance with Regulated Levels of	Naturally Occurring Radioactive Material (NORM) pursuant
o 20 NMAC 3.1 subpart 1403.C and D.	•
1	
	X
Name (Original Signature): Just Pau	<u> </u>
	0
Title: <u>Facilities</u> Supelvisor	
. ,	
Date: /1/7/00	



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

: MA34:11:00-7 -21

Address

3250 Southeide River Road

FARMINGTON New Mexico 875

Signature

12/7/

Date

2 #:9922228909



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: Envirtect, cluc	Fax Number: 632 - 1865
Attn: Harlon Brown	Number of Pages:
From: Les Bough - Farmington	Including Cover: 3
J	
Comment:	

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

Wistin M Walters

enc.

CMW/cmw

C:/files/labreports/BJ.wpd



SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID: B J Services Wash Bay Sludge Project #:
Date Reported:

502601 02-10-00

Lab ID#:
Sample Matrix:
Preservative:

G810 Sludge

Date Sampled: Date Received:

02-10-00 02-10-00

Condition:

Cool and Intact

Date Analyzed: Chain of Custody: 02-10-00 7672

Parameter

Result

Cool

IGNITABILITY:

Negative

CORROSIVITY:

Negative

pH = 8.80

REACTIVITY:

Negative

L. Ojem

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

Mistar M Waster Review



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

	Concentration	Detection Limit	Regulatory Limits
Parameter	(mg/L)	(mg/L)	(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.

Deur L. Openion (Review Nactes



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



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.

Den L. Greven

Review Mactes



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

Client:	BJ Services	Drain at #1	500004
	DJ 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

	Concentration	Det. Limit	Regulatory Level
Parameter	(mg/L)	(mg/L)	(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 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

Mister of Walla



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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

		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(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.

Deur L. Qu'enun

/ Mistini m Walters
Review



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

		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(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 . Queran



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

		Duplicate		
	Sample	Sample	Detection	
	Result	Result	Limits	Percent
Parameter	(mg/L)	(mg/L)	(mg/L)	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



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

Client: QA/QC Sample ID: Matrix Spike Laboratory Number: G810 Sample Matrix:

TCLP Extract

Analysis Requested: **TCLP** Condition: N/A

Project #: Date Reported: Date Sampled:

N/A 02-16-00

Date Received: Date Analyzed: 02-14-00

N/A N/A

Date Extracted:

02-11-00

			Spiked			SW-846
	Sample	Spike	Sample	Det.		% Rec.
	Result	Added	Result	Limit	Percent	Accept.
Parameter	(mg/L)	(mg/L)	(mg/L)	(mg/L)	Recovery	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.

Aristini M Walker



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		Detection	Regulatory
	Concentration	Limit	Limit
Parameter	(mg/L)	(mg/L)	(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
Pentachiorophenol	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.

Allen R. Gleven



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.

Den L. Oglew Analyst



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 Quince



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	1
			_

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 L. Carren Review



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

Moting Martens Review



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 Percent (mg/L) Difference		Det. Limit (mg/L)	
	(1119/2)	(111972)	Difference	(1119/2)	
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: M

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.

Deen L. Ogleen
Analyst

Mistine M Walters
Review



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)		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	Spike .	Sample	eSpiked	Percent	Acceptance
Conc. (mg/L)	Added.		Sample	Recovery	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

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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

CHAIN OF CUSTODY RECORD

Client / Project Name		Project Location 32 50 Souths id.	Side River B			ANALYSIS	ANALYSIS / PARAMETERS		
Sampler:					F.F			Remarks	
HARLAN M. Brown	ري ديا	92056	10- 4	to .c	4): pH				
Sample No./ Sample Identification Date	ple Sample te Time	Lab Number	Sample Matrix	tnoO	% 21				
Sladed 2.10.00		0/35	Sludge	_	\				
ח			ס						
1									
Relinquished by: (Signature)			Time	Received by: (Signature)	ignature)	7		Date	Time
Relinquished by: (Signature)			2,10.00 10:03	Received by: (Signature)	ignature)	The same	3	00:0/2	5.0/
Helinquisned by: (Signature)				Hecelved by: (Signature)	ignature)			·	
			FOVIROTECH INC		2			Sample Receipt	
		- ·						>	N/A
			5796 U.S. Highway 64 Farmington, New Mexico 87401	5796 U.S. Highway 64 nington New Mexico 8	ļ 17401		Received Intact	Intact	
			9 (202)	(505) 632-0615			Cool - Ice/Blue Ice	Blue Ice	

District 1 - (505) 393-6161 P.O. Box 1980 Habbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 Rio Brazos Road c, NM 87410 مدرد

District IY - (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: 12.1.00	4. Generator Constal
	Verbal Approval Received: Yes ⋈ No ☐	5. Originating Site
2.	Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Environted
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 MANISON LAWE Formington NM 87401
9.	Circle One:	3
	 A. All requests for approval to accept oilfield exempt wastes will be accommodately considered and accept the second of the second of	ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by
BF	RIEF DESCRIPTION OF MATERIAL:	
	Cheamephuine contominated Soil.	Trausfer line rapture
	between touk and Trousport on	<u> </u>
	PH ANKLYSIS HSDS Attached.	
Est	Hauled 12/2/00, verbal approval from Roger timated Volume 168 cy Known Volume (to be entered by the open	
-	GNATURE: Waste Management FacilityAuthorized Agent PE OR PRINT NAME: Harlan M. Brown TEL	DATE: (2.4.80) EPHONE NO. 505-632-0615
A		m/m/ (ocologist DATE: 12/6/00

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	Envirotech Inc.
1130 Madison Lane	Soil Remediation Remediation Facility
Farmington, NM 87401	Landfarm #2, Hilltop, New Mexico
	5796 US Hwy 64, Farmington, NM 87401
3. Originating Site (name):	Location of the Waste (Street address &/or ULSTR):
Coastal Chemical, LLP	
1130 Madison Lane,	
Farmington, NM 87401	
Attach list of originating sites as appropriate	
4. Source and Description of Waste	
Amine based gas treating add	itive from on-site tank.
Jess 2, 22, 3	
	4
	·
	~
A A and ill	
1, Michael Meredith Coastal Chemical (Print Name)	representative for:
(Print Name)	
Coastal Chemical	do hereby certify that,
1988, regulatory determination, the above described	y Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described	Waste is. (Check appropriate classification)
EXEMPT oilfield waste V NON-EXEM	IPT oilfield waste which is non-hazardous by characteristic
	by product identification
and that nothing has been added to the exempt or not	n-exempt non-hazardous waste defined above.
For NON-EXEMPT waste the following documentar	
✓ MSDS Information	Other (description):
RCRA Hazardous Waste Analysis	
Chain of Custody	
The second of th	Internally Opposition Prodices the Advantage (NIODRA) augustant
	laturally Occurring Radioactive Material (NORM) pursuant
to 20 NMAC 3.1 subpart 1403.C and D.	•
Name (Original Signature): <u>Nichael Mer</u> Title: <u>Jacility Manager</u>	d H.
Name (Original Signature): 1 Your O You	<u>~</u>
Frankity Dan acco	
litie:	
12/2/20	
Date: 12/2/00	



Material Safety Data Sheet

The Dow Chemical Company

Midland, Michigan 48674

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PAGE: 1

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) * OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 2

3 ...

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

RESPIRATORY IRRITATION.

4. FIRST AID

614

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

METHOD OSED: SETATERSH

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)
* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 3

PRODUCT: GAS/SPEC (R) CS-2000 GAS TREATING SOLVENT ADDITIVE PRODUCT CODE: 60643

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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

615

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)
* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 4

PRODUCT: GAS/SPEC (R) CS-2000 GAS TREATING SOLVENT ADDITIVE PRODUCT CODE: 60643

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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)
* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 5

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

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 O 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)

* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 6

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

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)
* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 7

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

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 PAI

PAI=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) * OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

PAGE: 8

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

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.

* OR (R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH, BUT NO WARRANTY, EXPRESS OR IMPLIED, IS MADE. CONSULT THE DOW CHEMICAL COMPANY FOR FURTHER INFORMATION.



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client: Sample ID: Coastal Chemical

Project #: Date Reported: 500706 12-04-00

Lab ID#:

Amine Upset 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.

CHAIN OF CUSTODY RECORD

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ostanisea	Project Location	sisen ten u	LAUE,			ANALYSIS / PARAMETERS	RAMETERS			
Sampler:	7	Client No.). 2007						Remarks	\$	
Sample No./ Sar Identification Da	Sample Sample Date Time	Lab N	nber	Sample Matrix	No. o Contain	Hg					
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			-								
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Relinquished by: (Signature)				α.	Received by: (Signature)	Signature)					
				VIROTECH INC		2		Sampl	Sample Receipt	bt	
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			Farmi	5796 U.S. Highway 64 rmington. New Mexico 87401	Highway (34 87401		Received Intact	5		
				(505) 6	(505) 632-0615			Cool - Ice/Blue Ice	lce e		

District I - (505) 393-6161 P. O. Box 1980 Hobbs, NM 88241-1980 Patrice II - (505) 748-1283 811 S. First Artesia, NM 88210 P1-trict III - (505) 334-6178 Rio Brazos Road

District IY - (505) 827-7131

c, NM 87410 مندر

New Mexico

表。这个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们就是一个人,我们

Energy Minerals and Natural Resources Department NOV 2 8 2000 Oil Conservation Division

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

Environmental Bureau Oil Conservation Division

RECEIVED

Submit Original Plus I Copy to appropriate

District Office

Form C-138

Originated 8/8/95

Roje- Hadenson

Env. JN:

92132

REQUEST	FOR APPROVAL	TO ACCEPT	SOLID WASTE
			JOLID MINDIE

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE
1. RCRA Exempt: Non-Exempt: X	4. Generator ENERGY Sorvices
Verbal Approval Received: Yes 🔀 No 🔲	5. Originating Site Washbay
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Edvirotack
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Mayoro
7. Location of Material (Street Address or ULSTR)	4109 E. alain St.
9. <u>Circle One</u> :	Faculty ton, NW 87400
 A. All requests for approval to accept oilfield exempt wastes will be accommodated generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accomproved the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. 	ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by
BRIEF DESCRIPTION OF MATERIAL:	
Continue from of wash by solids di I gave verbal approval for continuing operations weather conditions, (Ag Estimated Volume	These of the haul) — cy
APPROVED BY: Murtyn J My TITLE: Environ	DATE: 11/22/00 mntal Geologist DATE: 11/28/00



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RID BRAZOS ROAD AZYEC, NEW MEXICO \$7410 (305) 334-6178 Fas (503)334-6170

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

1. Generator Name and Address:	2. Destination Name:
Hallitute Energy Server	Envirotech Inc. Soil Remediation Remediation Facility
4/08 & Their May 87401	Landfarm #2, Hilltop, New Mexico
3. Originating Site (name):	5796 US Hwy 64 Parmings on NM 87401 Location of the Waste (Street address &/or ULSTR):
Wash Bay Some as above	4109 5 11.
Holding Area	Farming 21 May
Artach list of prightning sites as appropriate	The state of the s
4. Source and Description of Waste	
Wash Bay Solido	(continuation)
2	
, Nation	
I, Dova Hodays (Rent Name)	representative for:
Hallita Enga Derre	do hereby certify that, y Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described to	
EXEMPT pilfield waste NON-EXEM	IPT oilfield waste which is non-hazerdous by characteristic
	by product identification
and that nothing has been added to the exempt or nor	n-exampt non-t azardous waste defined above.
For NON-EXEMPT waste the following documentar MSDS Information	tion is attached (check appropriate items):Other (description):
RCRA Hazardous Waste Analysis	
L'Chain of Custody	
	(4)
This waste is in compliance with Regulated Lavels of N to 20 NMAC 3.1 subpart 1403.C and D.	laturally Occurring Radioactive Material (NORM) pursuant
Name (Original Signature):	0 •
11 - 1	
Title: Themlesses I ferre	
Date: //-2/-00	



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 Comers area,

Date of TCLP

2-11-00

Printed Name

DOUG HODGES

Title / Agency

Thanter Superior

Address

4109 E Main

. ()

Signature

11-21-00

Date

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



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



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

		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(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 Bromofluorobenzene 98% 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 M Waster



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.

Allen L. Cycecan



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	D	Danasa Danasa a
CIA/CIC Accentance Criteria	Parameter	Percent Recovery
and a noocptance officing	r arannotor	1 01 00 111 120 00 101 1

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.

Delen P. Oglence

Pristing Marters



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

	Concentration	Det. Limit	Regulatory Level (mg/L)
Parameter	(mg/L)	(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

(Asistine M Walters Review



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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	Regulatory Limits
ratameter	(mg/L)	(mg/L)	(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 Bromofluorobenzene 100% 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.

Allen R. afein

(Review Moeles



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

		Detection	Regulatory
	Concentration	Limit	Limits
Parameter	(mg/L)	(mg/L)	(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 Acce	ptance 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.

Deur L. apena (Review Review)



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

Duplicate				
	Sample	Sample	Detection	
	Result	Result	Limits	Percent
Parameter	(mg/L)	(mg/L)	(mg/L)	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.

Den L. Cajeur Christini ny Doeter



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 TCLP

Date Received: Date Analyzed: N/A 02-14-00

Analysis Requested: 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.

Christini m Walter



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	_	Detection	Regulatory
	Concentration	Limit	Limit
Parameter	(mg/L)	(mg/L)	(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.

Allen L. Geleveen

Review Malters



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.



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	ИD	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	
	9040 Compounds	30.0%	

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.

Deur L. Ofeecer Review Review



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.

Den L. Que

Review My Warters



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

	Concentration	Det. Limit	Regulatory Limit
Parameter	(mg/L)	(mg/L)	(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 Chercus

Christini M Waltus Review



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 Analyst

Mistin M Walters
Review



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	Detectio	n Sample	Duplicate	ı % 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 Conca(mg/L)			e Solked	Name of the Control o	Acceptance Range A
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

Mister of Walters

CHAIN OF CUSTODY RECORD

ANALYSIS / PARAMETERS	Remarks					Date Time			Sample Receipt Y N/A Received Intact	Cool - Ice/Blue Ice
	sienis Q	Contraction	7			Received by: (Signature)	Received by: (Signature)	Received by: (Signature)	31 IDC. Iway 64 exico 87401	615
Food E Halv	92132-01	Sample Der Matrix	Slube			Date Time Received 10:00		Receiv	ENVIROTECHING 5796 U.S. Highway 64 Farmington, New Mexico 87401	(505) 632-0615
	Client No.	Sample Lab Number	1189 01:6							
Client / Project Name Harri Surfey Essengy Services	Sampler: [takkan H. Bros)	o./ Sample on Date	Work B-			Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)		

Diatrict I - (505) 393-6161 P. O. Box 1980 Hobos, NM 88241-1980 Diatrict II - (505) 748-1283 811 S. First Artesia, NM 88210 Pitrict III - (505) 334-6178 Rio Brazos Road

District IV - (505) 827-7131

c, NM 87410.

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 OCT 2 6 2000

Submit Original Plus 1 Copy to appropriate District Office

Form C-138

Originated 8/8/95

Environmental Bureau
Oil Conservation Division

Env. JN: 92132-12

REQUEST FOR APPROVAL TO ACCEPT	SOLID WASTE						
1. RCRA Exempt: Non-Exempt:	4. Generator Energy Sorvices						
Verbal Approval Received: Yes 🔲 No 😡	5. Originating Site Hain Yard						
2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2	6. Transporter Educatecut						
3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401	8. State New Hospico						
7. Location of Material (Street Address or ULSTR)	4109 E Main St.						
9. Circle One:	Farmagion WM.						
 A. All requests for approval to accept oilfield exempt wastes will be accepted acceptance; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accepted provided and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. 	ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by						
BRIEF DESCRIPTION OF MATERIAL:							
Cleanup of diesel Residual Fr and & Secondary Containment. MSDS Attacked.	2000 33 31 31 31 31 31 31 31 31 31 31 31 31 3						
Estimated Volume cy Known Volume (to be entered by the operator at the end of the haul) ————————————————————————————————————							
SIGNATUFIE: And farm M Waste Management Facility Authorized Agent							
TYPE OR PRINT NAME: Harlan M. Brown TEL	EPHONE NO						
(This space for State Use)							
	9/5 DATE: 10/24/00						

RECEIVED DCT 2 3 2000



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (506) 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	Envirotech Inc.
4109 E. Mais Street.	Soil Remediation Remediation Facility
Formington NM 97402	Landfarm #2, Hilltop, New Mexico
3. Originating Site (name):	5796 US Hwy 64. Farmington, NM 87401 Location of the Waste (Street address &/or ULSTR):
	coolidate of the reason for our additions that of our our officers
Halliburton Energy Service 4109 E. Mail Street	
Farming for NM 87902 Attach list of originating sites as appropriate	·
A December of Marks	
Absorbant Matarial F	en diesel Spill.
	•
	:
Hall:buile Energy Ser	and the second section of the section o
(Print Name)	representative for:
Hallibuile Energy Ser	do hereby certify that,
according to the Resource Conservation and Recover	y Act (RCRA) and Environmental Protection Agency's July,
1988, regulatory determination, the above described v	vaste is: (Check eppropriate classification)
	PT oilfield waste which is non-hazardous by characteristic
analysis of	by product identification
and that nothing has been added to the exempt or nor	n-exempt non-hazardous waste defined above.
For NON-EXEMPT waste the following documentate	tion is attached (check appropriate items):
✓ MSDS Information	Other (description):
RCRA Hazardous Waste Analysis	
Chain of Custody	
This waste is in compliance with Regulated Levels of N	laturally Occurring Radioactive Material (NORM) pursuant
to 20 NMAC 3.1 subpart 1403.C and D.	
Name (Original Signature):	Ha
Title: <u>Supervison</u> Shaved 5	review
/	
Date: 10-20-00	

DIESEL OIL - HAL-TANK PAGE 1

DATE: 10-20-00

REVISED DATE 04-07-99

MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES

DUNCAN, OKLAHOMA 73536

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

CHEMICAL CODE: DIESEL OIL - HAL-TANK PART NUMBER: 516003900

PKG QTY: 330 GALLON TANK APPLICATION: HYDROCARBON BASE

SERVICE USED: FRACTURING

PERCENT TLV

> 60 % NOT EST DIESEL NOT EST

PROPERTY MEASUREMENT

APPEARANCE CLEAR, COLORLESS LIQUID

AMINE ODOR

SPECIFIC GRAVITY (H20=1) - 840

7.00 BULK DENSITY LB/GAL NOT DETERMINED

SOLUBILITY IN WATER AT

20 DEG C. GMS/100ML H20 NIL SLOWLY BIODEGRADABILITY PERCENT VOLATILES 100 EVAPORATION RATE(BUTYL ACETATE=1) <1 VAPOR DENSITY 5 - 6 VAPOR PRESSURE (MMHG)

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 O FLAMMABILITY 2 REACTIVITY O SPECIAL NONE

> 100 F / > 37 C FLASH MTHD TCC FLASH POINT

1.00

AUTOIGNITION TEMPERATURE

FLAMMABLE LIMITS (% BY VOLUME) UPPER 6.0

495 F / 257 C LOWER .7

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.

PN: 516003900 PAGE

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE AND CARBON MONOXIDE.

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

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.

STABILITY: STABLE CONDITIONS TO AVOID:

HEAT, SPARKS AND OPEN FLAME.

PN: 516003900 PAGE 3

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. 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. 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.

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

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

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

PN: 516003900 PAGE 4

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

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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

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DEPARTMENT OF TRANSPORTATION (DOT)

FOR PN# 516003900

HAZARD GUIDE 27

PAGE 1

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 Hobbi, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 n' trict III - (505) 334-6178 Rio Brazos Road

District IV - (505) 827-7131

a.c. NM 87410

New Mexico

Energy Minerals and Natural Resources Department 2 6 2000 Oil Conservation Division

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

Environmental Bureau Oil Conservation Division

RECEIVED

Submit Original Plus I Čopy to appropriate District Office

Form C-138

Originated 8/8/95

Env. JN: 92102-03

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| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
| 1. RCRA Exempt: Non-Exempt: Non-Exempt: | 4. Generator Robert Botyless |
| Verbal Approval Received: Yes ☑ No ☐ | 5. Originating Site TiGee共3 |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Burcess |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State New Majorco |
| 7. Location of Material (Street Address or ULSTR) | SE4, Sec 34, T3001, R13W |
| 9. <u>Circle One</u> : | |
| A. All requests for approval to accept oilfield exempt wastes will be accepted and accept one certificate per job. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by |
| All transporters must certify the wastes delivered are only those consigned | or transport. |
| Soil Contomonated with oil water smulston for | 2 nd Stage Consission |
| | |
| Scruben | 7777777 |
| MSDS Attacked 2 drum Cy. Known Volume (to be entered by the one | OCT 2000 OCT 2000 OCT 2000 OCT 2000 |
| Estimated Volume — cy Known Volume (to be entered by the ope | erator at the end of the haul) ———————————————————————————————————— |
| SIGNATURE: Flack Street TITLE: Landfarm M Waste Management Facility Authorized Agent TYPE OR PRINT NAME: Harlan M. Brown TEL | DATE: 10.18.00 EPHONE NO. 505-632-0615 |
| (This space for State Use) | |
| APPROVED BY: Deny Term TITLE: Geolo | 913 DATE: 10/23/00 |
| APPROVED BY: Motion of Miles Environn | rentri Gralagist DATE: 10/26/00 |

10-17-00; 8:30AM; ENVIROTECH

;5056321555



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

ONAT FOUNT

Usoloal

10.17.00

9:20 d, W.

OIL CONSERVATION DIVISION

AZTEG DISTRICT OFFICE

1004 RIO BRAZUE ROAD

AZTEG, NEW MEXICO 87410

[303] 334-6178 Fax [303)334-6770

GARY E. JOHNSON

IENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|--|--|
| RI PAYIGSS | Envirotech Inc. |
| PO 80x 128 | Soil Remediation Remediation Facility |
| FARMINGTON, NM 87499 | Landfarm #2, Hilltop, New Mexico |
| | 5706 DE Un 64 E CANADA NEW MEXICO |
| 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): |
| TIGER NO. 3 GAS WELL | condition the waste (Stiest address a/of OFSTV): |
| 1.1GER 1481 3 GAS WELL | |
| SE/4 SEC 34, T30H, R13W | |
| SAN JUAN CO. NM | |
| | , |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste OIL-INATER EMUCSION IN DIRT. E | . بدور با المراجع المر |
| OIL-INATER EMUSSION IN DIEL. E | EMOUSION IS FROM SELOND STABE |
| COMPRESSOR SCRUBBER. | |
| | • |
| , | |
| | |
| | |
| - | |
| The Markey | |
| 1. JOM M (ARTHY (Print Name) | representative for: |
| (Print Name) | |
| R. L. BAYLESS (Print Name) | do hereby certify that, |
| according to the Resource Conservation and Recover | y Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described of | Waste is: (Check appropriete clessification) |
| \mathcal{V} | |
| EXEMPT oilfield waste NON-EXEM | IPT oilfield waste which is non-hazardous by characteristic |
| analysis or | by product identification |
| | • |
| and that nothing has been added to the exempt or nor | n-exempt non-hazardous waste defined above. |
| | |
| For NON-EXEMPT waste the following documentar | tion is attached labors annountees the walls |
| MCDC Information | |
| MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| Chain of Custody | |
| | |
| | |
| This waste is in compliance with Regulated Lavels of N | laturally Occurring Radioactive Material (NORM) pursuant |
| to 20 NMAC 3.1 subport 1403.C and D. | , |
| | |
| | |
| No control of the con | (h. M) |
| Name (Original Signature): | |
| , | , |
| Title: ENGLIKED | |
| | |
| Date: 10/17/2000 | |
| | |
| | |





Facsimile Cover Sheet

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

| TO: Jan Mc Courty |
|--|
| FROM: Debra Riddell Ext 112 |
| DATE: 10/17/00 |
| FAX NUMBER: 326-6911 |
| Lo pages (Including cover sheet) MESSAGE MS DS Sheet-for compressor oi) |
| Please call if you can't read. |
| - Charks |
| DEDRA |
| |

THANK YOU,

Sent By: HANOVER COMPANY: OCT-17-2000 15:44

505 325 5328: 6 SPTAL CHMMICA' AU

Oct-17-00 4:10PM: الھ″ **560 32**7 4302 Page 2

http://emmsds.ilisps/.com/nciacgi/n...Fnetahiml%2linewsourch.himl&r=1&1/C

602466-00 POBIL PEGASUS 805 MATERIAL SAFETY DATA BULLETIN

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: MOBIL PEGASUS 1005 SUPPLIER: MONTE OIL CORP. NORTH AMERICA MARKETING AND REFINING 3225 CALLOWS RD. FAIRFAX, VA 22037

24 - Hour Emergancy (wall collect): 609-737-4411

Product and MSDS Information: 600-662-4525 600-224-4644

CHEMINEO:

800-424-9300 202-483 7616

2. COMPOSITION/INFORMATION ON INGREDIENTS

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

3. HAZAROS IDENTIFICATION

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CVR 1910 1200 and determined not to be hazardoun. 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. It irritation occurs, call SKIN CONTACT: Wash contact areas with soap and water

INHALATION: Not expected to be a problem.

INCHSTION; Not expected to bara problem when indented, II-

uncomfortable seek medical assistance.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, toam, dry chemical and Water Log. SPECIAL FIRE FIGHTING PROCEDURES: Water or team may cause from the Use water to keep fire exposed containers cool. Water apray may be used to flush spills away from exposure. Provent runet: 5 tire control or dilucion from entering streams, sewery, V.

Sent By: HANOVER COMPANY;

505 325 5328;

Oct-17-00 4:10PM;

Page 3/6

http://emmada.ibspsl.com/netacgi/n...PnetalumP%21/nervsgarch.html&r-1&f=G

drinking water supply

SPECIAL PROTECTIVE EQUIPMENT: For Tires in amologed areas, fire

Fighters must use self-contained broathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None. Flash Yoin! C(F): 34: (47:)

(ASTM D-42). Flammable limits - LEL: NE; UEL: NE.

NEFA HAZARD ID: Health: 0, Flammability: 1, Resultivity: 0

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, Possibly

Hydrogarbon flammabs. Sultur 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 leach say paterway including intermittent dry creeks. Report spill to Coast Guard Coll free number (800) 424-8802. In case of accident or road spill natify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED UK SPILLED: Adsorb on fire retardant treated sawdust distemated as Earth, etc. Showel 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 contering storm several or drains and contact with soil.

PERSONAL PRECAUTIONS: See Section #

7. HANDLING AND STORAGE

HANDLING: No special procautions are necessary beyond normal good hydiene 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 who and with adequate ventilation.

RESPIRATOR'S PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

EYE PROTECTION: Normal industrial type 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 Shent for specific details.
APPEARANCE: Liquid COLOR: Light Amber ODOR: Marketshic ODOR: Marketshic ODOR THRESHOLD-ppm: NE

Sent By: HANOVER COMPANY;

505 325 5328;

Oct-17-00 4:11PM;

Page 4/6

http://cmmtsds.ihspsl.com/netaegi/n...FnetahtmP%2Fnewscarch.html&rell&F-G

DOILING POINT C(E) : NE MELTING POINT C (F); NA FLASH POINT C(F): 245(473) (ASTM D 92) ELAMMARTLITY: NE AUTO FLAMMABILITY: NE EXPLOSIVE PROPERTIES: NA OXTOIRING PROPERTIES: NA VAPOR PRESSURE-mining 20 C: & It? 0.1 VAPOR DENGITY: > 7.0 EVAPORATION RATE: NE RELATIVE SENSITY 15/4 CD 0.89 PARTITION COEFFICIENT: NE VISCOSITY AT 10 C, CST: 130-0 VISCOSITY AT 100 C, CSL: 13.5 PUUR POINT G(F) : -12(10). FREEZING POINT C(F) : NE VOLATILE ORGANIC COMPOUND: NE NA-NOT APPLICABLE NE-NOT ESTABLISHED D-BECOMPOSES FOR FURTHER TECHNICAL INFORMATION: CONTACT TOUR MARKETING REPHESENTATIVE

10. STABILITY AND REACTIVITY

STABILITY (THERMAL, LIGHT, ETC.): Stable, CONDITIONS TO AVOID: Extrama haur. INCOMPATIBILITY (MATERIALS TO AVOID); Scrong exidizers. HAZARDOUR DECOMPOSITION PRODUCTS: Carbon monoxide. Ponsibly hydrocarbon fragments. Sulfur oxides and compounds HAZARDOUS FOLYMERIZATION, Will not occur,

11. TOXICOLOGICAL DATA عالى كالموالي المنافعة المارسة والمنافعة والمنافعة المنافعة المناف

--- ACUTE TOXT COLOGY---

ORAL TOXICITY (RATS): Practically non-toxic 11050: greater than 2000 mg/kg). - Based on testing of similar products and/or the Componental 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 mlats and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABAITS): Practically non-irritating. (Ornize accre: 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). --- Hasaid on testing of similar products and/or the components.

----- SUBCHRONIC TOXICOLOGY (SUMMARY) -----Severely solvens refined and severely hydrotreated mineral base of he. have been tonted at Mobil Environmental and Health Sciences Laboratory by dermal application to talk 5 days/wank for 90 days at doses significantly higher than these expected during mormal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

--- CHRONIC TOXICOLOGY (SUMMARY) ---

The beam offs in this product are severally solved recises ...

Robert L Bayless

Sent By: HANOVER COMPANY;

505 325 5328;

Oct-17-00 4:11PM;

Page 5/6

http://emmsds.ihspsl.com/nctacgi/n_.f-nctahttnf%2f-newsearch.html&c-1&f=G

severely treated oils showed no evidence of corclingents of according

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE AND EFFECTS! Not established.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Preduct is suitable for Burning in an onclosed, controlled burner for fuel value of disposel 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 an appropriate government wante disposal facility. Was of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics or time of disposal. RCRA INFORMATION: The unused product, In our opinion, is not sponifically listed by the EPA as a hazardous wasta (40 CFR, Part 2010), not is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hexardous characteristics of ignitability, corresistry, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Loaching Procedure (TCLP). However, used product may be regulated.

14. TRANSPORT INFORMATION

USA DUT: NOT REGULATED BY USA DOT: RID/ADR: NOT REGULATED BY RID/ADR. 1MO: NOT REGULATED BY IMO. IRTA: NOT REGULATED BY IATA.

15. REGULATORY INFORMATION

Governmental Inventory Status: All components comply with TSCA. EU labeling: Symbol: * EU labeling not required. Riak Phrash(s): R. Safaty Phrase(s): Not applicable. U.S. Superfund Amendments and Resulthorization Not (SARA) Ti-10 111; This product contains no "EXTREMENT HAZARDOUS SUBSTANCES". SARA (311/312) REPORTABLE HARARD CATEGORIES: None. This product contains no chemicals reportable under SARA (313) toxic release program.... The following product incredients are cited on the lists perow: CHEMICAL NAME. CAS NUMBER LIST CITATIONS XYLENES (0.035) ~~===== 1330-20-7 22 ZINC (ELEMENTAL ANALYSIS) (6 1t: 0.048) 7440-66-6 PHOSPHORODITHOIC ACID, 0.0+DI 68649-42-3 C)-14-ALKYL ESTERS, ZINC SALTS (2: 1) (2009) (0.33%)

Sent By: HANOVER COMPANY; - UCI-11-E000 13:40

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Oct-17-00 4:12PM; ' au ששעב זשנ כשכ

Page 6/6 г. С

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REGULATORY TO STS SEARCHED ----

1-ACCIH NLL 6-LARC 1 11-TSCN 4 16-CA P65 TARC 2-ACCIH A1 /- LARC 2A 12-TSCA 552 11 CA 865 REPRO JIMIA RTK 2=ACC/H A1 /-IABC 2A 12=TSCA 552 17 CA R65 REPRO 22=M1 793 H=ACC/H A2 B=IARC 2D 13=TSCA 5e 15=CA RTK 23 MN RTK 4=NTP CARC 9=09HA CARC 14-TSCA 6 19=FL RTK 24=HJ RTK 5=NTP 5US 10 05HA 2 15=TSCA 125 20 IL RTK 25=VA RTK 25 FUA RTE

26mRI RTK

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

USE: ENGINE LUBBICANT

and the property of the second NOTE: MOBIL PRODUCTS ARE NOT FURMULATED TO CONTAIN PCBS.

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

For Innernal Use Only: MMC: 0* 0* NA 1* 1*, MPYEC: A, TRN: 602466-00, GLIS: 400795, CMCS97: 970936, REQ: US - MARKETING, SAFE USE: 1. EHS Approval Date: 100CT1999

去去,我们的我们的一个女子,我们们的人们的人们的,我们们的人们的,我们们的人们的,我们们的人们的人们的人们的人们的人们的人。 "我们们的一个人的人们的人们的人们 Logally required information is given in accordance with applicable information given herein is pitered in good faith as accurate, but witnout quarantee. Conditions of use and suitability of the product for particular uses are beyond our control; all rinks 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 intringe valid patents or as extending any license under valid pakents. Approprace warnings and sale handling procedures should be provided to hendlers and meets, Use or retransmission of the information contained herein in any other initial than the format as prosented is strictly prohibited, mobil retener represents not warrants that the format, content or product formulas contained in this document comply with the laws of any other nountry except the United States of America.

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District 1 - (505) 393-6161 P. O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 P'-trict III - (505) 334-6178 Rio Brazos Road

ر. NM 87410

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

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

OCT 2 6 2000

Environmental Bureau Oil Conservation Division Submit Original Plus I Čopy to appropriate District Office

Form C-138

Originated 8/8/95

| strict IV · (505) 827-7131 | Env. JN: <u>00075-01</u> |
|--|---|
| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
| 1. RCRA Exempt: Non-Exempt: | 4. Generator |
| Verbal Approval Received: Yes No 🔀 | 5. Originating Site 32-7 CDP |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Environtaly |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State New Marcico |
| 7. Location of Material (Street Address or ULSTR) | W.F.S. 32-7 CDA |
| 9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accepted acceptance; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accepted accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigner. | ompanied by necessary chemical analysis to
on of origin. No waste classified hazardous by |
| BRIEF DESCRIPTION OF MATERIAL: | |
| | :((. |
| Clean upof Now bloton Gil SP
MSDS & RCRA RCE Atta | OCT 2000 SEE CONTROL OF SEE CONTROL |
| SIGNATURE: Waste Management Facility Authorized Agent TYPE OR PRINT NAME: Harlan M. Brown TEL | Manager DATE: 10 · 2 3 · ∞ DATE: 505-632-0615 |
| APPROVED BY: Months of Mich - TITLE: Engroup | 5/3/ DATE: 19/23/00
mmhl bodogst DATE: 10/26/00 |

No.8640 -- P. 1/4

Oct.20, 2030 3:26PM EVER-READY OIL



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION ATTER DISTRICT OFFICE 1000 HIQ BRAZOS ROAD AZTEC, NEW HEXICO A7410 (806) 414-8170 FRE (505)114-417

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: | |
|--|--|--|
| Petrolink/DAM Ever Ready Dic | Envirotech Inc. | |
| 712 W HWY 66 POBOx 2998 | Soil Remediation Remediation Facility | |
| MILDN, NM 87021 | Landfarm #2, Hilltop, New Mexico 5796 NS Hwy 64 Farmington, NM 87401 | |
| 3. Originating Site Inamel: Production Operator New Mexico. Site is referred to | Location of the Waste (Street address &/or ULSTR): | |
| Ala D. | SINC. (PDA) South of Tiffany, Ca in | |
| New Mexico. Site is referred to | Middle Mech. | |
| | | |
| Attach list of originating sites as appropriate | | |
| 4. Source and Description of Waste D | From transport into bulk storage when gasus 485 (Mobil) was spilled on ground led to spilled on. | |
| has tording on south forted of | from transport into bulk snowing when | |
| as middle And to | Jasus 485 (Mobil) was spilled on ground | |
| ar modele Mesa. reportery was appl | red to Spilled oil. | |
| | | |
| | | |
| 0 0 | | |
| 1. Kon Hutrey Petrobot de Ever Ready Oil representative for: | | |
| (Print Name) | | |
| | do hereby certify that, | |
| according to the Resource Conservation and Recove | ry Act (RCRA) and Environmental Protection Agency's July, | |
| 1988, regulatory determination, the above described | W3ST8 (S; (Check appropriate classification) | |
| EXEMPT pliffeld waste X NON-EXEMPT cliffeld waste which is non-hazardous by characteristic | | |
| analysis or by product identification | | |
| | | |
| and that nothing has been added to the exempt of non-exempt non-hazardous waste defined above. | | |
| For NON-EXEMPT waste the following documentation is ettached (check appropriate items): | | |
| X MSDS Information | Other (description); | |
| RCRA Hazardous Waste Analysis | | |
| Chain of Custody | | |
| | The second secon | |
| The contract to the contract t | | |
| to 20 NMAC 3.1 subpart 1403.C and D. | Naturally Occurring Redioactive Material (NORM) pursuant | |
| O | • | |
| | | |
| Name (Original Signature): Non Clentre | d · | |
| | | |
| Title: NAT | | |
| Date: 28/Div. len | <i>t</i> | |
| Date: 98/Diri lan | | |

AUG-24-00 THU 03:26 PM

32-7 CDF

Jenine.

605816-00 PAGE 1 OF 7

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:

800-424-5300

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 PEGASUS 485

605816-00 PAGE 2 OF 7

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.

**INVISION FIRE AND EXPLOSION HAZARDS: None Flash Point C(F): >

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

MOBIL PEGASUS 485

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

HIGGSIEN - 10 - 10

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

Mobil

MOBIL PEGASUS 485

605816-00 PAGE 4 OF 7

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

Mobil

MOBIL PEGASUS 485

605816-00 PAGE 5 OF 7

Modified Ames Test.

---SENSITIZATION (SUMMARY)--Representative Mobil formulations have not caused skin sensitization in guinea pigs.

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

MOBIL PEGASUS 485

605816-00 PAGE 6 OF 7

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, 0,0-DI 68649-42-3 22

C1-14-ALKYL ESTERS, ZINC SALTS (2:
1) (ZDDP) (0.26%)
```

Code key: CARC = Carcinogen; SUS = Suspected Carcinogen

Mobil

MOBIL PEGASUS 485

605816-00 PAGE 7 OF 7

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



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client: Sample ID: Ever Ready Oil Stockpile

Project #: Date Reported: 007501

Lab ID#:

18042

Date Sampled:

08-30-00

Sample Matrix:

Soil

Date Received:

08-25-00

Preservative:

Cool

Date Analyzed:

08-30-00 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:

- R. afenar

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.

Review Misters Machine

| Farm | | EOV | Relinquished by: (Signature) | Relinquished by: (Signature) | Relinquished by: (Signature) Part State State Relinquished by: (Signature) Part State St | | | | | | STOCKpile 8.25.00 10:3044 18042 | Sample No./ Sample Sample Lab Number | Cirrilles Tryjillo Client No. | roject Name |
|--|---|----------------|------------------------------|------------------------------|--|---|--|--|--|---|---------------------------------|--------------------------------------|-------------------------------|-------------|
| 5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615 | | ENVIROTECH INC | Received by: (Signature) | Réceived by: (Signature) | 1:me | | | | | | So: - | Con | o. of tainers | |
| Received Intact Cool - Ice/Blue Ice | ~ | Sample Receipt | | | Date
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First (505) 748-1283
First (14M 88210
FILL (505) 334-6178
Rio Brazos Road
NM 87410
FLIV - (505) 827-7131

This space for State Use)

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

RECEIVED

OCT 0 3 2000

Submit Origin
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to appropria
District Offic

Environmental Bureau
Oil Conservation Division

TITLE: Environmental Goodonst DATE: 10-3-00

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE | | | | | |
|---|---|--|--|--|--|--|
| RCRA Exempt: Non-Exempt: | 4. Generator Key Fnewsy | | | | | |
| Verbal Approval Received: Yes 🔲 No 🔀 | 5. Originating Site Bonday 32-10 No. | | | | | |
| Management Facility Destination Tierra Env. Land Farm | 6. Transporter Key Enersy | | | | | |
| Address of Facility Operator 426 CR 3100 Arte Ny 9710 | 8. State () | | | | | |
| Location of Material (Street Address or ULSTR) Sec. 1), TSIN KIN | NMPM La Plata County (D. | | | | | |
| Circie One: | ,, | | | | | |
| All requests for approval to accept oilfield exempt wastes will be accepted. Generator; one certificate per job. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. | ompanied by necessary chemical analysis to | | | | | |
| All transporters must certify the wastes delivered are only those consigned for transport. | | | | | | |
| Dirt Contaminated From hydraulic pump leak | SEP 2000 SEP 2000 OIL CON. DIV DIST. 3 OV | | | | | |
| cy Known Volume (to be entered by the ope | | | | | | |
| GNATURE: TALE: ENVIRONMENTAL TITLE: ENVIRONMENTAL TELE WASIO MANAGEMENT FACILITY AUTHORIZED AGENT PE OR PRINT NAME: Tevery To Bath TELE TELE | Specialist DATE: 9/26/00 PHONE NO. 334-8894 | | | | | |

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|---|---|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. |
| Four Corners Division | Crouch Mesa Landfarm |
| 5651 US Highway 64 | 420 C.R. 3100 |
| Farmington NM, 84701 | Aztec, NM 87401 |
| | |
| 3. Originating Site: (name): | Location of the Waste (Street Address &/or ULSTR): |
| | 40071 FOL 0 4750 FIAM |
| S.G. Interests I, Ltd. | 1297' FSL & 1556 FWL |
| Bondad 33-10 No. 12A | Sec. 12, T-33-N, R-10-W, NMPM
LaPlata County, Colorado |
| | Lariata County, Colorado |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | |
| Dirt was contaminated with hydraulic oil when the hydra | ulic pump ruptured on a well service rig. |
| Approximately 20-25 gallons of oil was spilled onto the | |
| containers as quickly as possible. The dirt will be appro- | |
| facility located near Farmington, NM. | |
| | |
| I, Bob James, representative for Key Energy Services according to the Resource Conservation and Recovery Agency's July 1988, regulatory determination, the above (Check appropriate classification) | Act (RECA) and Environmental Protection |
| 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 documenta | tion 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 | Jame |
| 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



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

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

LAB: (505) 325-1556

FAX: (505) 327-1496

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 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.



Inter-Mountain Laboratories, Inc.

(10)

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

On Site Technologies Limited

Project: Metals

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

Lab ID:

Client:

0300W02448

Matrix:

Soil

Condition: Intact 2506 West Main Street, Farmington, NM 87401

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 Me | etals | | | | |
| Arsenic | | 15 | 6 | 100 | mg/Kg |
| Cadmium | * | 1.0 | 0.5 | 20 | mg/Kg |
| Chromium | Ä. | 8 | 1 | 100 | mg/Kg |
| Lead | <i>:</i> | 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.

Date/Time

CHAIN-OF-CUSTODY RECORD

On Site Technologies, LTD. 612 E. Murray Drive

Farmington, NM 87401 (505) 325-2432

Inter-Mountain Laboratories Subcontractor:

2506 W Main

Farmington, NM 87401

TEL: FAX:

(505) 326-4737

Acct #:

Requested Tests

16-Jun-00

SW6010B

Bottle Type

Collection Date

Matrix

Sample ID

40ZG

6/15/2000

Soil

0006041-01A

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

Comments:

Date/Time

UNGO 1630 Received by:

Relinquished by: HOLOL RELE

Relinquished by:

Received by:

CHAIN OF CUSTODY RECORD Date: (C. 17.02)

| $\overline{\mathbf{c}}$ | 612 E. |
|-------------------------|--------------------|
| ON SITE | TECHNOLOGIES, LTD. |

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

Page: _____ of ____

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

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CHAIN OF CUSTODY RECORD

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

10 Working Days

Special Instructions / Remarks: ¥ 24-48 Hours

Rush

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(Client Signature Must Accompany Request)

Authorized by: _

District I - (505) 393-6161 P.O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 P1-trict III - (505) 334-6178 Rio Brazos Road مـدر, 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

SEP 2 6 2000 Environmental Bureau

RECEIVED

Submit Original Plus I Copy to appropriate

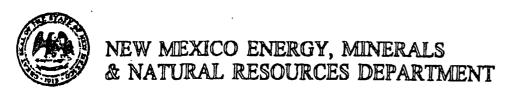
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Originated 8/8/95

Oil Conservation Division Env. JN: 92132

District Office

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE | | | | | |
|--|--|--|--|--|--|--|
| 1. RCRA Exempt: Non-Exempt: Deany Fount | 4. Generator ENERGY Service | | | | | |
| Verbal Approval Received: Yes ⊠ No ☐ | 5. Originating Site Wash bay | | | | | |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Eduino tech | | | | | |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Down Hazoico | | | | | |
| 7. Location of Material (Street Address or ULSTR) | 4109 & Hamst.
Formington, DU 87401 | | | | | |
| 9. <u>Circle One</u> : | 3 ' | | | | | |
| A. All requests for approval to accept oilfield exempt wastes will be accommon department of the control of the contr | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by | | | | | |
| BRIEF DESCRIPTION OF MATERIAL: | | | | | | |
| Continuation of wash by Solids TCCP Attached | | | | | | |
| TCCP Attached | | | | | | |
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| Estimated Volume — cy Known Volume (to be entered by the operator at the end of the haul) — cy | | | | | | |
| SIGNATURE: Called Signature: Landfarm M | Anager DATE: 9./8.00 | | | | | |
| TYPE OR PRINT NAME: Harlan M. Brown TEL | EPHONE NO. 505-632-0615 | | | | | |
| | | | | | | |
| (This space for State Use) | | | | | | |
| APPROVED BY: Derry tour TITLE: GEO/a | eg 13 DATE: 9/22/00 | | | | | |
| APPROVED BY: Thaton Title: Environment | 16 Godgist DATE: 7-26.00 | | | | | |



OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (508) 334-6170 Fax (505)334-6170

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| Abblibute Energy Service 409 E Memory 87401 3. Originaling Site (name): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of Waste Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation of the Waste (Street address & for ULSTR): Week Bay See Above Too Incation Address & for Incation Address & for Incation Incation of the Waste Which is non-hazardous by characteristic analysis or by product identification Week Bay See Above Too Incation Incat | otoch Inc | | | | | | |
|--|--|--|--|--|--|--|--|
| Soll Remediation Reactifity Landfarm #2, Hillop, New Mexico 5796. IIS Huy 64. Farmington, NM 87401 3. Originating Site (name): Wash Bay See Above Attach list of originating sites as appropriate 4. Source and Description of Waste Wash Bay Solido (continuation) (continuation) Attach list of originating sites as appropriate 4. Source and Description of Waste Wash Bay Solido (continuation) (continuation) (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 MSDS Information RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | | | | | | | |
| Location of the Waste Istreet address & Freeze address | | | | | | | |
| Location of the Waste (Street address and OLSTA): Wash Bay See Above | US Hwy 64 Farmington NM 87401 | | | | | | |
| Attach list of originating sites as appropriate 4. Source and Description of Waste Wash Bay Solido (continuation) Trapresentative 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 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 This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | · · | | | | | | |
| Attach list of originating sites as appropriate 4. Source and Description of Waste Wash Bay Solid (continuation) Tepresentative 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 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 This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | D9 E Main | | | | | | |
| 4. Source and Description of Waste Wash Bay Solido (continuation) Tepresentative for: (Print Name) Description 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 This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | rmington M They. | | | | | | |
| DOUG HOGES representative for: Print Name | 0 , | | | | | | |
| representative for: (Print Name) (Print Name) (Check appropriate classification) EXEMPT oilfield waste (Check appropriate classification) (Check appropriate items): (Check appropriate classification) | · | | | | | | |
| representative for: (Print Name) (Print Name) (Check appropriate classification) EXEMPT oilfield waste (Check appropriate classification) (Check appropriate items): (Check appropriate classification) | | | | | | | |
| I 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 Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | 4 | | | | | | |
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| I 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 Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | | | | | | | |
| I 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 Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | representative for: | | | | | | |
| I 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 Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | | | | | | | |
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| 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 Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | ock appropriate classifications | | | | | | |
| For NON-EXEMPT waste the following documentation is attached (check appropriate items): MSDS Information Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | •• | | | | | | |
| For NON-EXEMPT waste the following documentation is attached (check appropriate items): MSDS Information Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | aste which is non-hazardous by characteristic | | | | | | |
| MSDS Information Other (description): RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | aste which is non-hazardous by characteristic dentification | | | | | | |
| RCRA Hazardous Waste Analysis Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | aste which is non-hazardous by characteristic dentification | | | | | | |
| Chain of Custody This waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | aste which is non-hazardous by characteristic dentification | | | | | | |
| his waste is in compliance with Regulated Levels of Naturally Occurring Radioactive Material (NORM) pursuant | aste which is non-hazardous by characteristic dentification hazardous waste defined above. ed (check appropriate items): | | | | | | |
| • | aste which is non-hazardous by characteristic dentification hazardous waste defined above. ed (check appropriate items): | | | | | | |
| • | aste which is non-hazardous by characteristic dentification hazardous waste defined above. ed (check appropriate items): | | | | | | |
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| | aste which is non-hazardous by characteristic dentification n-hazardous waste defined above. ed (check appropriate items): Other (description): | | | | | | |
| Isma (Original Signatura): | aste which is non-hazardous by characteristic dentification n-hazardous waste defined above. ed (check appropriate items): Other (description): | | | | | | |
| Jame (Original Signature): None Horles | aste which is non-hazardous by characteristic dentification n-hazardous waste defined above. ed (check appropriate items): Other (description): | | | | | | |
| itle: Mainterace Dupervison | aste which is non-hazardous by characteristic dentification n-hazardous waste defined above. ed (check appropriate items): Other (description): | | | | | | |
| Lept 19/2000 | aste which is non-hazardous by characteristic dentification n-hazardous waste defined above. ed (check appropriate items): Other (description): | | | | | | |
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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.

Printed Name

Title / Agency

Address

Signature

Date

Date of TCLP

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



SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID: Halliburton Energy Services

Project #:

213201

Sample ID: Lab ID#: Wash Bay Sludge

Date Reported:

02-10-00

Sample Matrix:

G811 Sludge Date Sampled:

02-10-00

Preservative:

Cool

Date Received: Date Analyzed:

02-10-00 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



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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

Mistini M Wasters



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



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 |
| HexachioroBenzene | 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.

Allen P. aferan

Pristing M Wasters



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 |
| | | | |

| 0 4 4 | Det. | Regulatory |
|--------|--|--|
| | iion Limit | Level |
| (mg/L) | (mg/L) | (mg/L) |
| | | • |
| 0.064 | 0.001 | 5.0 |
| 0.640 | 0.001 | 21 |
| 0.035 | 0.001 | 0.11 |
| 0.024 | 0.001 | 0.60 |
| 0.034 | 0.001 | 0.75 |
| 0.002 | 0.001 | 0.025 |
| 0.021 | 0.001 | 5.7 |
| 0.019 | 0.001 | 0.14 |
| | 0.640
0.035
0.024
0.034
0.002
0.021 | Concentration (mg/L) Limit (mg/L) 0.064 0.001 0.640 0.001 0.035 0.001 0.024 0.001 0.034 0.001 0.002 0.001 0.002 0.001 0.0021 0.001 |

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

/ histori m Walter
Review



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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

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.

Allen R. afeen



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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.

Ween L. Oglence Christini my Waeters
Review



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

| Client:
Sample ID: | QA/QC
Matrix Duplicate | Project #:
Date Reported: | N/A
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 |

| | | Duplicate | | |
|----------------------|--------|-----------|-----------|------------|
| | Sample | Sample | Detection | |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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

Christini my Lasters



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 **TCLP Extract** Sample Matrix: Date Received: N/A Analysis Requested: **TCLP** Date Analyzed: 02-14-00 Condition: N/A Date Extracted: 02-11-00

| | Sample | Spike | Spiked
Sample | Det. | | SW-846
% Rec. |
|----------------------|--------|--------|------------------|--------|----------|------------------|
| | Result | Added | Result | Limit | Percent | Accept. |
| Parameter | (mg/L) | (mg/L) | (mg/L) | (mg/L) | Recovery | 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.

Seu F. Gener Phristini m Waeter



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 | 444 | Detection | Regulatory |
|-----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limit |
| Parameter | (mg/L) | (mg/L) | (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.

Allen L. Gere

Mistine of Walters
(Review



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 |

| | Concentration | Det.
Limit | Regulatory
Limit |
|-----------------------|---------------|---------------|---------------------|
| Parameter | (mg/L) | (mg/L) | (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.

Allen L. Oyleun Analyst



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.

Allen L. Ofeecen Analyst



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 Quu

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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.

Deu L. Que

Christing Maetus
Review



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.



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 |
| Laboratory Number:
Sample Matrix:
Analysis Requested: | G810
TCLP Extract
TCLP Metals | Date Sampled: Date Received: Date Analyzed: | N/A
N/A
02-16-00 |

| Blank & Duplicate | Instrument | Method | Detection | Sample | Duplicate | % | Acceptance - |
|-------------------|------------|--------|-----------|--------|-----------|-------|--------------|
| Conc. (mg/L) | Blank | Blank | Limit | | | Diff. | 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 | | and the second s | e ∴ Els Spiked | A CONTRACTOR OF THE CONTRACTOR | Acceptance |
|--------------|---------|--|----------------|--|------------|
| Conc. (mg/L) | Added - | | Sample Sample | Recovery | 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

| Client / Project Name | | Project Location | | | ANALYSIS / PARAMETERS | RAMETERS | | |
|------------------------------|----------------|------------------|---|--------------------------|-----------------------|---------------------|----------------|----------------|
| Harri Burton Ewargy Sorvices | 7 | 1104 R Main | 7. C | | | | | |
| Sampler: | | Client No. | | _ | | | Remarks | |
| HARLAN M. Brow | | 92132 | 10- | to .c.
enia | | | | |
| | Sample
Time | Lab Number | Sample
Matrix | Cont | | | | |
| 02.(6.6.0 | 9:10 | 1185 | Stubs | 7 | | | | |
| | | | 7 | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Relinquished by: (Signature) | Λ | 20 | Date Time Receip | Received by: (Signature) | Henry | | Date 2.10 .00 | Time
/d:'o! |
| Relinquished by: (Signature) | | | | Received by: (Signature) | | | | |
| Relinquished by: (Signature) | | | Recei | Received by: (Signature) | | | | |
| | | | NIRO. | OH DO | | Samp | Sample Receipt | |
| | | | | | | | Y | N NA |
| | | | 5796 U.S. Highway 64
Farmington, New Mexico, 87401 | hway 64
fexico 87401 | | Received Intact | 7 | |
| | | | (505) 632-0615 |)615
3615 | | Cool - Ice/Blue Ice | 7 | |
| | | | | | | | | |

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

District IV - (505) 827-7131

New Mexico

Energy Minerals and Natural Resources Department Oil Conservation Division OCT

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 OCT 0 3 2000

RECEIVED

Form C-138 Originated 8/8/95

Environmental Bureau S Oil Conservation Division

Submit Original Plus I Copy to appropriate District Office

Env. JN: 98059.01

| 2. 2. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10 | CHARLES POOR IN A THOUGHT IN A THEORY OF THE PROPERTY OF THE POOR THE POOR I DECEMBER THE SECOND OF THE SECOND |
|--|--|
| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
| 1. RCRA Exempt: ☐ Non-Exempt: ☑ | 4. Generator Compression |
| Verbal Approval Received: Yes 🔲 No 🔀 | 4. Generator Compression 5. Originating Site Solids |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Servenis |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Daw Marico |
| 7. Location of Material (Street Address or ULSTR) | 1125 43 Hwy 516
AZTEC, DW, 87410 |
| 9. Circle One: | |
| A. All requests for approval to accept oilfield exempt wastes will be accommon Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompressed the material is not-hazardous and the Generator's certification listing or testing will be approved. | ompanied by necessary chemical analysis to |
| All transporters must certify the wastes delivered are only those consigned | d for transport. |
| BRIEF DESCRIPTION OF MATERIAL: | |
| Estimated Volume 17 Lyscy Known Volume (to be entered by the open SIGNATURE: Landfarm M Waste Management Facility Authorized Agent | erator at the end of the haul) — cy DATE: 9.27.00 |
| TYPE OR PRINT NAME: Harlan M. Brown TEL | EPHONE NO |
| APPROVED BY: Moving BY: Movin | / / / |
| APPROVED BY: ///www. /////w/// TITLE: /-hullyma.m.d. | L Legal Mac + DATE: 1/7 - 3 - Co- |



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 NIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 [306] 334-6178 Fax (303)334-6170

GARY E. JOHNSON GOVERNOR

IENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| · · | · |
|--|--|
| 1. Generator Name and Address: Universal Compression 1125 US Hwy 516 Aztec, N.M. 87410 3. Originating Site Inamel: 1125 U.S. Hwy 516 Aztec, N.M. 87410 | 2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico 5796 US Hwy 64, Farmington, NM 87401 Location of the Waste (Street address &/or ULSTR): |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste Washing | • / |
| | 4 |
| C 15 | |
| 1, Tregg Se /F | representative for: |
| 1988, regulatory determination, the above described EXEMPT oilfield waste NON-EXEM | representative for: do hereby certify that, ry Act (RCRA) and Environmental Protection Agency's July, waste is: (Check appropriate classification) APT oilfield waste which is non-hazardous by characteristic by product identification |
| and that nothing has been added to the exempt or no | n-exempt non-hazardous waste defined above. |
| For NON-EXEMPT waste the following documenta MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | tion is attached (check appropriate items): Other (description): |
| his waste is in compliance with Regulated Levels of No. 20 NMAC 3.1 subpart 1403.C and D. | Naturally Occurring Radioactive Material (NORM) pursuant |
| lame (Original Signature): | |
| itle: Applications Coordina | tor |
| late: 9-27-00 | |
| | |

9-27-00; 9:29 ;UNIVERSAL COMP.

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

Printed Name

Title / Agency

Address

Signature

Date

9-27-00

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID: Universal Compression

Project #: Date Reported: 805901

Lab ID#:

Compressor Lube G526

Date Sampled:

12-03-99 12-01-99

Sample Matrix:

Soil

Date Received:

12-01-99

Preservative: Condition:

Cool and Intact

Date Analyzed: Chain of Custody: 12-03-99 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.

٩́nalyst

Review Mhales



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 |

| | Concentration | Detection
Limit | Regulatory
Limits |
|----------------------|---------------|--------------------|----------------------|
| Parameter | (mg/L) | (mg/L) | (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.

Deur l. Givan

Mistini M Water



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.

Heim h. Gener



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

| Client: | Universal Compression | Project #: | 80590 1 |
|--------------------|-----------------------|---------------------|----------------|
| 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 |

| | Concentration | Det.
Limit | Regulatory
Limit | |
|---------------------|---------------|---------------|---------------------|--|
| Parameter | (mg/L) | (mg/L) | (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 L. Oferen

Misteri M Walles



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.

Deer R. Geeren

/ Mistini M Walten Review



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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

| QA/QC | Project #: | N/A |
|------------------|--|--|
| Laboratory Blank | Date Reported: | 12-08-99 |
| 12-07-TCLP VOL | Date Sampled: | N/A |
| Water | Date Received: | N/A |
| N/A | Date Analyzed: | 12-07-99 |
| N/A | Analysis Requested: | TCLP |
| | Laboratory Blank
12-07-TCLP VOL
Water
N/A | Laboratory Blank Date Reported: 12-07-TCLP VOL Date Sampled: Water Date Received: Date Analyzed: |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| : | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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.

Deur L. Cyleren

Review Misting Walters



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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.

Pristin m Walter

Comments:

QA/QC for sample G525 - G526.

Dew L. Oferen



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

| Client: Sample ID: | QA/QC
Matrix Duplicate
G525 | Project #: Date Reported: | N/A
12-08-99 |
|---|-----------------------------------|-----------------------------------|------------------------|
| Laboratory Number: Sample Matrix: Analysis Requested: | TCLP Extract | Date Sampled: Date Received: | N/A
N/A
12-07-99 |
| Condition: | N/A | Date Analyzed:
Date Extracted: | 12-07-99 |

| | | Duplicate | | |
|----------------------|--------|-----------|-----------|------------|
| | Sample | Sample | Detection | |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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.

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ENVIROTECH LABS

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:

Date Analyzed:

N/A 12-07-99

Analysis Requested: Condition:

TCLP N/A

Date Extracted:

N/A

| | Spiked | | | | SW-846 | |
|----------------------|--------|--------|--------|--------|----------|---------|
| ! | Sample | Spike | Sample | Det. | | % Rec. |
| | Result | Added | Result | Limit | Percent | Accept. |
| Parameter | (mg/L) | (mg/L) | (mg/L) | (mg/L) | Recovery | 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 | NĎ | 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

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PRACTICAL SOLUTIONS FOR A BEITTER 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 | | Detection | Regulatory | |
|-----------------------|---------------|-----------|------------|--|
| | Concentration | Limit | Limit | |
| Parameter | (mg/L) | (mg/L) | (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.

Alexand. Officer



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 |
| Pentachiorophenol | 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.

Alexa L. Oglewer



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 **TCLP Extract** Sample Matrix: Date Received: N/A Preservative: Cool Date Extracted: N/A Condition: Cool & Intact Date Analyzed: 12-07-99 **TCLP** Analysis Requested:

| Parameter | Sample
Result
(mg/L) | Duplicate
Result
(mg/L) | Detection
Limit
(mg/L) | Percent
Difference |
|-----------------------|----------------------------|-------------------------------|------------------------------|-----------------------|
| - 01 | ND | ND | 0.020 | 0.09/ |
| o-Cresol | 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 L. Cheesen

Review Much

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.

Alem L. Operen



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.

Dem L. Green

Mustin My Wales



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

QA/QC Client: 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**

| | Sample
Result | Duplicate
Result | Percent | Det.
Limit | |
|---------------------|------------------|---------------------|------------|---------------|--|
| Parameter | (mg/L) | (mg/L) | Difference | (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.

Alcen L. Cepeur

/ Wistin M Wallers
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: | 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 | Sampl | | Percent | 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.

nalyst

Misteri M Walls

CHAIN OF CUSTODY RECORD

| | | | I D | I |) D | Τ | T | 1 | T | T | | 1 | 7 | | T | S | Τ~ | |
|---|----------------------|----------------|------------------------------|------------------------------|------------------------------|---|---|---|---|---|--|---|----------------|------------------|-----------------|------------|-----------------------|-----------------------|
| | | | Relinquished by: (Signature) | Helinquished by: (Signature) | Relinquished by: (Signature) | | | | | | | | carpossor cose | Identification | FARCAL F. Brown | Sampler: | Universal Con | Client / Project Name |
| | | | e) | θ) | ure) | | | | | | | | 12.1.99 | Sample
Date | Srowe | | pressi w | |
| | | | | | | | | | | | | | 30:H(| Sample
Time | | | 1 | |
| | P | | | | <i>"</i> | | | | | | | | G526 | Lab Number | 9 B c | Client No. | U.S. Hur | Project Location |
| Farmington, New Mexico 87401 (505) 632-0615 | 5796 U.S. Highway 64 | ENVIROTE | Rec | Rec | Date Time Rec | | | | | | | | λ
2. 1 | Sample
Matrix | 10-65086 | | AWY 550 | |
| Mexico 8 | jhway 6. | TECH | Received by: (Signature) | Received by: (Signature) | Received by: (Signature) | | | - | | | | | - | Cont | o. of
ainer: | | | |
| 87401 | 4 | 50 | signature) | signature) | signature) | | | | | | | | | KL
Wo 1 | 4 t | | | |
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| | | | | { | 1.)011 | | | | | | | | | | | | ANALYSIS / PARAMETERS | |
| ς _π | | | | | | | | | | | | | - | | | 4 | / PARAME | |
| Received Intact Cool - Ice/Blue Ice | | Sample Receipt | | N. | 3 8 | | | | | | | | 77: 612 7 | | = | | TERS | |
| 77 | <
z | leceipt | | 17. 15.0 | | | | | | | | | PHC; Spilled | | Hemarks | | | |
| | Z
> | | | 17. 30 | Time | | | | | | | 2 | Cz & | | | | | |

rict II - (505) 748-1283 S. First sia, NM 88210 rict III - (505) 334-6178 Rio Brazos Road

<u>tict IV</u> - (505) 827-7131

c. NM 87410

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

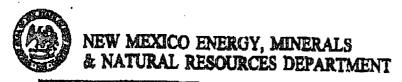
RECEIVED

OCT 0 3 2000

Submit Origina
Plus I Com
to appropriate
District Office

Environmental Bureau
Oil Conservation Division

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE 00040 |
|---|--|
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Key Everge |
| Verbal Approval Received: Yes No No | 5. Originating Site Foret 31 |
| 2. Management Facility Destination Tierra land Farm | 6. Transporter Keg |
| 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 |
| 3. <u>Circle One</u> : | |
| A. All requests for approval to accept oilfield exempt wastes will be accepted. Generator; one certificate per job. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to n of origin. No waste classified nazardous by |
| BRIEF DESCRIPTION OF MATERIAL: | |
| Contaminated Soil This was moved as energency stimated Volume cy Known Volume (to be entered by the open GNATURE: Day Bayes Bayes TITLE: Land Form | erator at the end of the haul) DATE: 630-00 |
| YPE OR PRINT NAME: David VSonavit TEL | <u> </u> |
| and and | 15/= DATE: 9/30/00
what Goday 15/==== 10-3-00 |



GIL CONSERVATION DIVIDION ATTER DISTRICT DEFICE 1990 RIG DRAZOS ROAD AZTES, NEW MEXICO 27410 (305) 334-6176 Fee (805)334-6-76

GARY E. JOHNSON COVERNOR

JENNIFER A. SALIEBURY CARINET SECRETARY

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: | | | | | |
|--|---|--|--|--|--|--|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. | | | | | |
| Four Corners Division | Crouch Mesa Landfarm | | | | | |
| 5651 US Highway 64 | 420 C.R. 3100 | | | | | |
| Farmington NM, 84701 | 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 | | | | | | |
| Weter truck in in route to well site when tie rod on t | truck broke causing the truck to go into the bar ditch.
sel onto the ground. The dirt will be dug up and transported | | | | | |
| to Tierra Environmental for disposal. | | | | | | |
| AND STATE OF THE S | | | | | | |
| | | | | | | |
| according to the Resource Conservation and Recording to the Resource Conservation and Recording Agency's July 1988, regulatory determination, the a (Check appropriate classification) | above described waste is: | | | | | |
| EXEMPT oilfield waste X | NON-EXEMPT cilfield 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 docum X MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | Other (description): | | | | | |
| This waste is in comfeance with Regulated Levels to 20 NMAC 3.1 subpart 1403.C and D. | of Naturally Occurring Radioactive Material (NORMO pursant | | | | | |
| Name (Original Signature): | Helle from | | | | | |
| Title: Farmington Shop Mar | nager | | | | | |
| Date: June 29, | 2000 | | | | | |

September 30, 1998



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 | % | OSHA | ACGIH |
|---------------------|------------|----------|--------|--------|
| | Number | By Wt. | PEL | 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.

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: Conditions to Avoid:

Will not occur 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 nause defetting of the skin, reculting in dermatities. Dermal LD50 for diesel fuel is > 5 ml/kg (rabbit)

May cause irritation to nose, throat or lungs. Headache, nausea,

dizziness, unconsciousness may occur.

unconsciousness. If swallowed, may be aspirated resulting in inflammation and possible fivid (rat). Tagnabies

Subchronic and Chronic Effects of Overexposure:

We land the second and the second second second

Other Health Effects:

Combustion (burning) of most carbon-containing material forms carbon combastion (suring) of most carbon-containing material forms carbon monoxide. Carbon monoxide inhalation may cause carbonyhomeglobinemia. Chronic exposure to carbon monoxide causes fatigue, peer momeny, less of sensation in fingers, visual disturbances and insomnia. Carboxyhomoglobinemia 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 advancedly effect prople with pre-existing heart niceaes, pregnant women

Combination a second with lung cancer in antingly. There is limited evidence to suggest an association between occupational exposure to diesel exhaust and lung cancer in humans.

Health Hazard Categories:

| A | nimal | Human | | | Animal | Human |
|---|-------|-------|---|--------------------------|------------------|-------|
| Known Carcinogen
Suspect Carcinogen
Mutagen
Teratogen
Allergic Sensitizer
Highly Toxic | | | Toxic
Corrosive
Teritant
Target Organ
Specity - | Toxin
Lung-Aspiration | X
X
Mazard | |

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.

Immediately wash skin with scap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Remove from exposure. If broathing is difficult, give oxygen. If Inhalation: 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):

Negligible

Solubility in Water: Specific Gravity (H2O = 1): Percent Volatile by Volume: 0.8762 @ 60/60F (16/16C)

100 Evaporation Rate (Butyl Acetate=1):

< 1

Viscosity: 32.6 - 37.9 SUS 2 100 F (38C)

H. Fire and Explosion Data

Flash Point (Method Used): Flammable Limits (X by Volume in Air): > 115F (> 46C) (PMCC, ATSM D-93)

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 exides 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, atc.). 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

Flammable liquid Flammable/1993 Label: Placard: Not applicable

Hazardous Substance/RQ: Fuel cil (No. 2), 3 (Flammable liquid), NA 1993, PG III 49 CFR 173.150, 173.203, 173.241 Shipping Description:

Packaging References:

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

| | This product meets the the Occupational Page CFR Section 1910.1200 | ty a: | llowing hand Health | zard de
Hazard | efinition(s) as
Communication | s defined
Standard | (5 9 |
|-----|--|-------|---------------------|-------------------|----------------------------------|-----------------------|--------------|
| _X_ | Combustible_Liquid | - | Flammable | Aerose | ol | _Oxidizer | |

LosoreA eldemment ridniq Compressed Gas Explosive
X Health Hazard (Section F) Flammable Gas Flammable Liquid

Pyrophoric Unstable ____Organic Peroxide

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

Flammable Solid

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 Pert 372.

Phillias Primiram Compass (reference in Phillips Parmission Company on Phillips Institutes at a finalist, and finalists of the date of the date benefit. NO WARR, NEV OF MERCHANTASLITY, FINESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE AS CONCERNS THE INFORMATION HEREIN PROVIDED. The information provided bretter reliain only to the special product graphated and may not be valid where such product is used in combination with any other materials or in any process. Forther, since the conditions and matheds of use of the product and information reliands to because represent purposes. Phillips approach the such conditions are such as a provided with the product of each information for the use of any product in a mather that might infringe existing paramiss.

3. First ia, NM 88210 ict III - (505) 334-6178 Rio Brazos Road ... NM 87410

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

RECEIVED

Submit Origina,
Plus 1 Copy
to appropriate
District Office

OCT 0 3 2000

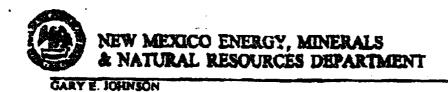
Environmental Bureau

| ict IV - (505) 827-7131 | Environmental Bureau |
|---|--|
| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE 00039 |
| 1. RCRA Exempt: Non-Exempt: A D. Foust | 4. Generator Weather Ford Yard |
| Verbal Approval Received 6-26-00 Yes 🔀 No 🔲 | 5. Originating Site Some 1 |
| Management Facility Destination Tierra land Form | 6. Transporter Foutz Const. |
| 3. Address of Facility Operator #40 CR 3100 Aztec | 8. State New Mexico |
| Location of Material (Street Address or ULSTR) Weather Forel yard | 114 N Cochiti Ave Farmington |
| Circle One: | 70 |
| A. All requests for approval to accept oilfield exempt wastes will be accepted and accept one certificate per job. All requests for approval to accept non-exempt wastes must be accepted and the Generator's certification listing or testing will be approved. | empanied by necessary chemical analysis to n of origin. No waste classified nazardous by |
| All transporters must certify the wastes delivered are only those consigned RIEF DESCRIPTION OF MATERIAL: | I for transport. |
| Contaminated Soil Foot know what would have green a verbal on this baridhus been out with injury since July 1st. Timated Volume 20 cy Known Volume (to be entered by the ope | rator at the end of the haul) |
| GNATURE SAME STATE TITLE: Land Form 1 (PE OR PRINT NAME CONIC SOVOCASTE TELE | Manages DATE: 6-30-00 |
| This space for State Use) REPROVED BY: Derry Year TITLE: GES (00) | 15T DATE: 9/28/00 |
| / / | |

TITLE: Environmental Goologist

1. Generator Name and Address:

GOVERNOR



CARRIET SECRETARY .

CERTIFICATE OF WASTE STATUS

2. Destination Name:

| 515 Post Oak Blvd. Suite 600 | TIERRA Environmental Company Inc.
420 C.R. 3100 |
|--|--|
| Houston, TX 77927 | Aziac, NM 87401 |
| 3. Originating Site inemel: | Location of the Wassa (Street address &/or VLSTN): |
| Weatherford U.S. L.P.
Drilling & Intervention Services | 114 N. Cochili Ave.
Farmington, NM 87401 |
| Assum list of originating sittle 80 appropriets | |
| 4. Source and Description of Weste | |
| The waste consists of approximately 30 or accumulated during yard ofean up operation sources are classified and oil used during facility was used to service and store oilfi | ons at the facility. Possesse hydrocarbon a service operations at the facility. The |
| David R. Phill | representative for: o B. Mance S.R. 4.65, do hereby certify think, my Act (RCRA) and Briving manual Protection Agency's July, |
| expression on the Resource Conservation and Record | o Rollance CR 4.65, do hereby certify that, by Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above determined | wapte ig: (Check appropriets simultoolard |
| | RIPT circuit waste which is non-hexardous by characteristic or by product identification |
| | |
| and that nothing has been added to the exempt or n | on-exampt nun-hazardous waste defined above. |
| and that nothing has been added to the exampt or re For NON-EXEMPT wests the following document MSDS Information V NCRA Headless Wasts Analysis Chain of Custody | , |
| For NON-EXEMPT weets the following document MSDS Information MSDS | Prior is attached (check approprieta items):Other (description):Neturally Occurring Redioactive (Matarial (NORM) pursuant * |
| For NON-EXEMPT weets the following document MSDS Information MSDS | Prior is attached (check approprieta items):Other (description):Neturally Occurring Redioactive (Matarial (NORM) pursuant * |
| For NON-EXEMPT weets the following document MSDS Information V NCRA Headedow Waste Analysis Chain of Custody This weets is in compliance with Regulated Levels of | Prior is attached (check approprieta items):Other (description):Neturally Occurring Redioactive (Matarial (NORM) pursuant * |



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

AMERICAN WEST ANALYTICAL **LABORATORIES** Analysis Requested: Semi Volatiles by SW 8270B

Lab Sample ID: L41545-06A Field Sample ID: FC-SP

Site ID: Weatherford/Farmington

Analytical Results for TCLP

Semi Volatile Organics by GC/MS

| | | | · · · · · · · · · · · · · · · · · · · | |
|--|-----------------------|--------------------|---------------------------------------|--|
| 463 West 3600 South
Salt Lake City, Utah | Units = mg/L Compound | Reporting
Limit | Amount
Detected | |
| (801) 263-8686 Toll Free (838) 263-8686 Fax (801) 263-8687 | 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-Trichlorophenoi | 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

Client: Wilson Environmental Date Sampled: June 9, 2000

Project: Weatherford/Farmington

Contact: C.B. Jacobson Date Received: June 12, 2000

Lab Sample ID:

Field Sample ID: FC-SP

L41545-06A

463 West 3600 South Salt Lake City, Utah

| TCLP METALS Method 1311 | | Date | Method | Reporting | Amount | |
|-------------------------|-------|----------|---------------|-----------|----------|--|
| Analytical Results | Units | Analyzed | Used | Limi: | Detected | |
| Arsenic | mg/L | 6/15/00 | 6010B | 2.0 | < 2.0 | |
| Barium | me/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 | 601 0B | 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 | |

(801) 263-8686 Tall Free (888) 263-8686 Fax (801) 263-8687

Released by:

Laboratory Supervisor

Report Date:

June 19, 2000

Page 1 of 1



INORGANIC ANALYSIS REPORT

AMERICAN WEST ANALYTICAL LABORATORIES Client: Wilson Environmental Date Sampled: June 9, 2000

Project: Weatherford/Farmington

Lab Sample ID: L41545-06A

Contact: C.B. Jacobson Date Received: June 12, 2000

Field Sample ID:

FC-SP

| | TCLP METALS Method 1311 | | Date Date | Method | Reporting | Amount |
|--|-------------------------|-------|-----------|--------|-----------|----------|
| 463 West 3600 South
Salt Lake City, Utah | Analytical Results | Units | Analyzed | Used | Limit | Detected |
| 84115 | | | | | | |
| | 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 |
| (801) 263-8686
Toll Free (888) 263-8686
Fax (801) 263-8687 | 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:

Laboratory Supervisor

Report Date:

June 19, 2000

Page I of I

ORGANIC ANALYSIS REPORT



Client: Wilson Environmental

Collected: June 9, 2000

Contact: C.B. Jacobson

Analyzed: June 15, 2000

Received: June 12, 2000

Analysis Requested: Purge & Trap by GC/MS SW846 #8260B/5030A

AMERICAN WEST ANALYTICAL **LABORATORIES**

Lab Sample ID: L41545-06A Field Sample ID: FC-SP

Site ID: Weatherford/Farmington

Analytical Results for TCLP

F&D VOLATILES

| | | | · • |
|--|-----------------------|---------------|----------|
| | Units = mg/L | | |
| | | Reporting | Amount |
| 463 West 3600 South | Compound | Limit | Detected |
| Salt Lake City, Utah
84115 | 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 |
| (801) 263-8686
Toll Free (888) 263-8686 | Chloroform | 0.049 | < 0.040 |
| Fax (801) 263-8687 | 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 |
| | Trichlofluoromethane | 0.040 | < 0.040 |
| | Vinyl chloride | 0.020 | < 0.020 |
| | o-Xylene | 0.040 | < 0.040 |
| | m & p Xylene | 0.040 | < 0.040 |

Lappratory Supervisor

Report Date:

June 21, 2000



INORGANIC ANALYSIS REPORT

AMERICAN WEST Client: Wilson Environmental Date Sampled: June 9, 2000

Contact: C.B. Jacobson

Date Received: June 12, 2000

ANALYTICAL LABORATORIES

Project: Weatherford/Farmington

Lab Sample ID: L41545-06B

Field Sample ID:

FC-SP

463 West 3600 South Salt Lake City, Utah 84115

| Analytical Results | Units | Date
Analyzed | Method
Used | Reporting
Limit | Amount
Detected |
|--------------------|----------|------------------|----------------|--------------------|--------------------|
| Flashpoint | °F | 6/14/00 | 1010 | 200 | >200 |
| pН | 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 |

(801) 263-8686 Toli Free (888) 263-8686 Fax (801) 263-8687

Released by:

Laboratory Supervisor

Report Date:

June 21, 2000

Page 1 of 1

District I - (505) 393-6161 P.O. 50x 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 7 Rio Brazos Road c, NM 87410 مدر

District IV - (505) 827-7131

New Mexico Energy Minerals and Natural Resources Department AUG 2 3 2000

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

RECEIVED

Form C-138 Originated 8/8/95

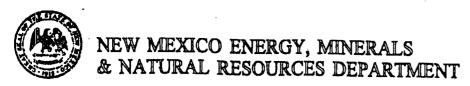
> Submit Original Plus I Čopy to appropriate District Office

Env. JN: 98065-64

Environmental Bureau

Oil Conservation Division

| REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE | | | | | | | |
|---|--|--|--|--|--|--|--|
| 1. RCRA Exempt: Non-Exempt: 🔀 | 4. Generator Services | | | | | | |
| Verbal Approval Received: Yes 🔲 No 🔀 | 5. Originating Site Main Your | | | | | | |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter ENURofeely | | | | | | |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Wand blookico | | | | | | |
| 7. Location of Material (Street Address or ULSTR) | 5651 U.S. Huy 64 | | | | | | |
| 9. Circle One: | Farmington, Whe 87408 | | | | | | |
| A. All requests for approval to accept oilfield exempt wastes will be accommon Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accomprised the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | mpanied by necessary chemical analysis to not origin. No waste classified hazardous by | | | | | | |
| Estimated Volume 10 cy Known Volume (to be entered by the ope | | | | | | | |
| SIGNATURE: Harlan M. Brown TITLE: Landfarm M. Brown TYPE OR PRINT NAME: Harlan M. Brown TELE | DATE: <u>\$\ \(\(\) \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ </u> | | | | | | |
| APPROVED BY: Martyn grip TITLE: Environm | ntal Galoyst DATE: 8-23-00 | | | | | | |



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: |
|--|---|
| Key Energy Services, Inc. | Envirotech Inc. |
| Four Corners Division | Soil Remediation Remediation Facility |
| 5651 US Highway 64 | Landfarm #2, Hilltop, New Mexico |
| Farmington, NM 84701 | 5796 US Highway 64, Farmington, NM 87401 |
| | |
| 3. Originating Site: (name): | Location of the Waste (Street Address &/or ULSTR): |
| Key Energy Services | |
| Farmington Facility | 36 42.14 North |
| 5651 US Highway 64 | 108 06.79 West |
| Farmington, NM 87401 | |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | |
| Contaminated dirt from a diesel fuel spill inside of our y | ard. A tank that was leased to customer was stored |
| in Key's yard for a few days. Key provided supervision of | |
| | |
| Ael. | |
| L | |
| I, Bob James, representative for Key Energy Service according to the Resource Conservation and Recovery Agency's July 1988, regulatory determination, the above (Check appropriate classification) | Act (RECA) and Environmental Protection |
| 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 documenta | ation is attached (check appropriate items): |
| X MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| X Chain of Custody | |
| 7. Chair of Gastoay | |
| | |
| Name (Original Signature): | Dan |
| Name (Original Signature): | Jan |
| - Och P | Jan |

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

a

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material DIESEL FUEL, NO. 2

CAS Number % 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







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.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.

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

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.

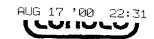
Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

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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.

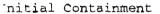
6. ACCIDENTAL RELEASE MEASURES

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.

 $\ensuremath{\mathsf{NOTE}}\colon$ Vapors released from the spill may create an explosive atmosphere.



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.

7. 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. 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.

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· 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, 20

TLV (ACGIH) : None Established

: 500 ppm, 2000 mg/m3, 8 Hr. TWA

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.







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. 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

S



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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

: NA1993 I.D. No. (UN/NA) Packing Group : III : None DOT Label(s)

DOT Placard : Combustible

ICAO/IMO

Proper Shipping Name : Gas Oil Hazard Class : 3

: UN1202 UN/NA Number : III Packing Group

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.



SARA, TITLE III, 311/ 312

: Yes Acute : Yes Chronic : Yes Fire 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.

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 : Hazardous Substance. Category

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

: 0 Health Flammability : 2 Reactivity







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_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











SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID: Key Energy Yard Stockpile Project #:
Date Reported:

806504 08-18-00

Lab ID#:

H993 Soil Date Sampled:

08-17-00

Sample Matrix: Preservative:

Cool

Date Received: Date Analyzed:

08-18-00 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:

L. apreces

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.

Me

Review Mosters

CHAIN OF CUSTODY RECORD

08121

| Received Intact | | | | | | | |
|-----------------|-------------------------|---|------------------|------------------|----------------|----------------|------------------------------|
| Z | Rec | 5796 U.S. Highway 64 Farmington, New Mexico 87401 | Farmington, No. | | | | |
| Sample Hecelpt | | | | | | | |
| | | | | | | | |
| | | Received by: (Signature) | | | | ле) | Relinquished by: (Signature) |
| | , | Received by: (Signature) | | | | ле) | Relinquished by: (Signature) |
| 3 | L. When | | 06:30 | -0 | E | M Brown | Hacker DW |
| Date Time |) | Received by: (Signature) | Date Time | | | ıre) | Relinguished by: (Signature) |
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| Remarks | | N. | | Client No. | | | Sampler: |
| Ho | ANALYSIS / PAHAME I ERS | | wr 64 | 5651 Awr 64 | | 7 | KARY Francy |
| | | | | Project Location | | | Client / Project Name |

Districe I - (505) 393-6161 P. O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 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

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Environmental Bureau

Oil Conservation Division

Form C-138 Originated 8/8/95

> Submit Original Plus I Copy to appropriate District Office

Env. JN: 92132

| | REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|
| 1. | RCRA Exempt: Non-Exempt: T: 26.00 | Healiburtan Ewergy S. 4. Generator | | | | | | | |
| | Verbal Approval Received: Yes ☑ No ☐ | 5. Originating Site Forest Road 312 Truck Accident | | | | | | | |
| 2. | Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Epuirotech | | | | | | | |
| 3. | Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Now Mercico | | | | | | | |
| 7. | Location of Material (Street Address or ULSTR) | SE4, See 17 730N, RYW
Ris Arribba County. | | | | | | | |
| 9. | Circle One: | Ris Arribba County. | | | | | | | |
| | A. All requests for approval to accept oilfield exempt wastes will be accommon Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompressed by the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by | | | | | | | |
| SIC | Clean up of diesal, Awti freeze, used vahicle accilent Imated Volume — cy Known Volume (to be entered by the open GNATURE: Harlan M. Brown — TITLE: Landfarm M. Waste Management Facility Authorized Agent — TELLE COR PRINT NAME: Harlan M. Brown — TELLE Corner — TELLE COR PRINT NAME: Harlan M. Brown — TELLE COR PRINT NAME: HARLAN NA | AUG 2000 Cook Div Corator at the end of the haul) — cy | | | | | | | |
| • | PPROVED BY: Demy Frent TITLE: Ges / | 99/5 DATE: 8/18/00 | | | | | | | |
| AI | PPROVED BY: Martyn May TITLE: Environm | h. 1 Godogist DATE: 8/22/00 | | | | | | | |

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1. Generator Name and Address:

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT DEFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 [506] 334-6170 Fax (505)134-6170

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

2. Destination Name:

| HOG & Main, 57. | Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop,New Mexico |
|--|---|
| Farming ton Du 87401 3. Originating Site (Hame): | 5796 US Hwy 64 Farmington, NM 87401 |
| | Location of the Waste (Street address &/or ULSTR): |
| Forest Road 312 | |
| SE4, SEC Z7, TBON, R
Rro Arriba County, NM
Attach list of originating sites as appropriate () | 46 |
| Rro Arriba Country, NA | |
| Attach list of originating sites as appropriate | , |
| 4. Source and Description of Waste | , |
| Clean up of vehicle hig
oil, & Awti Freeze) at a | rids (Dissel, Hyproulie Oil, and |
| | representative for: do hereby certify that, y Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described v | Vaste IS: (Check appropriate classification) |
| EXEMPT oilfield waste NON-EXEM analysis or | PT oilfield waste which is non-hazardous by characteristic 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 documentat MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | ion is attached (check appropriate items): Other (description): |
| This waste is in compliance with Regulated Levels of N to 20 NMAC 3.1 subpart 1403.C and D. | aturally Occurring Radioactive Material (NORM) pursuant |
| Name (Original Signature): ROBER/Smz94 | |
| Title: LISE ADVZLOR | |
| Date: 8-14-00 | |



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client: Sample ID: Halliburton Energy Serv.

Project #:

213209

Stockpile

Date Reported:

08-03-00

Lab ID#:

H848 Soil

Date Sampled:

08-02-00

Sample Matrix: Preservative:

Cool

Date Received:

08-03-00

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.

hristini my Walters



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 |

| | | Det. | Regulatory |
|-----------|---------------|--------|------------|
| | Concentration | Limit | Level |
| Parameter | (mg/L) | (mg/L) | (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.

Analyet

Pristing Walters



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 | e Spiked
Sample | | 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: Meth

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.

halvst

Review Misters

CHAIN OF CUSTODY RECORD

08099

| | Relinquished by: (Signature) | Relinquished by: (Signature) Relinquished by: (Signature) | | | | Stackpile 8.2.00 15.15 H848 | Sample No./ Sample Sample Lab Number | FLAN M. Brown | Sampler: Client No. | Client / Project Name Project Location |
|---|------------------------------|---|--|--|--|-----------------------------|--------------------------------------|---------------|---------------------|--|
| ENVIROTECH INC. 5796 U.S. Highway 64 Farmington, New Mexico 87401 (505) 632-0615 | Received by: (Signature) | B:38:15 Received by: (Signature) | | | | Soil | Sample Z construction | o. of tainers | | est Rd 3/2 |
| Sample Receipt Received Intact Cool - Ice/Blue Ice | | Date Time 8:3:00 8:11 | | | | USEDO! Conteminer | | nemarks | | ANALYSIS / PARAMETERS |

Distris: 4- (505) 393-6161 P. C. Box 1980 Ho tos. NM 88241-1980 Disorici II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 Rio Brazos Road

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

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

AUG 2 1 2000

RECEIVED

Submit Original Plus I Čopy to appropriate District Office

Form C-138

Originated 8/8/95

Environmental Bureau Oil Conservation Division

92132-09 Env

| c, NM 87410
 strict IV - (505) 827-7131 | (303) 827-7131 | Env. JN: | 92132-09 | District Offic |
|---|--------------------------------------|---|---|-----------------------------|
| REQUEST FOR A | PPROVAL TO ACCEPT | | • | ANTONIO EL MONTE "LE TRACT" |
| 1. RCRA Exempt: Non-Exempt: 🔀 | Denger Foust
Hartyne Keiling | 4. Generator | Halliburtan
Sarvin
ng Site Hadu y | Evergy |
| Verbal Approval Received: Yes | No [(6:30) | 5. Originatir | ng Site Marie 4 | and |
| | ech Soil Remedia.
ity Landfarm #2 | 6. Transport | el Servero | 5 |
| 3. Address of Facility Operator 5796 US Farming t | Highway 64
on, NM 87401 | 8. State ん | Jun Hosico | |
| 7. Location of Material (Street Address or ULS) | ſR) | 4109 E | edain | |
| 9. <u>Circle One</u> : | | Farmi | wohan No. | |
| A. All requests for approval to accept oilfiel Generator; one certificate per job. B. All requests for approval to accept non-PROVE the material is not-hazardous an listing or testing will be approved. | exempt wastes must be acc | ompanied by nece | essary chemical a | nalysis to |
| All transporters must certify the wastes delive | red are only those consigne | d for transport. | | |
| BRIEF DESCRIPTION OF MATERIAL: | | | | |
| 700-1000 gal of lig | W LGC VIII G | Ec on a | c (ean out | - Trong p. |
| Residual material | From Har | UG 2000
UG 200 | cleanor | 犬 . |
| Estimated Volume 700-10009 cy Known V | olume (to be entered by the op | erator at the end of | the haul) | су |
| SIGNATURE: Waste Management FacilityAuthorized Agen TYPE OR PRINT NAME: Harlan M. Brown | | | DATE: <u>7・2</u>し
05-632-0615 | .00 |
| (This space for State Use) APPROVED BY: Ton | TITLE: GO | 109157 | DATE: 8/18 | 3/00 |



GARY E. JOHNSON

GOVERNOR

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

16:30

AZTEC DISTRICT OFFICE 1000 RIG BRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 334-6170 Fax (505) 334-6170

IENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|--|---|
| Halli Bloom Energy Sources | Envirotech Inc. |
| 4109 N. Hain | Soil Remediation Remediation Facility |
| Edward of the War of and | Landfarm #2, Hilltop, New Mexico |
| FARMING fon Row Markes 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): |
| Sha | Eccation of the Waste Jouret address afor CESTAJ: |
| | |
| | |
| | |
| Attach list of originating sites as appropriate | , |
| 4. Source and Description of Waste | • |
| 700-1000 gellons of LGC VIL | l riuse wuter on a transport. |
| | · · · · · · · · · · · · · · · · · · · |
| (light gel cousistancy) | * |
| 37 | |
| | |
| | |
| ROBERT SMZTY | representative for: S do hereby certify that, Y Act (RCRA) and Environmental Protection Agency's July, |
| (Print Name) | representative for. |
| HALLZBURTON ENERGY SERVECE | ES do hereby certify that. |
| according to the Resource Conservation and Recover | y Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described v | Waste is: (Check appropriate classification) |
| · · · · · · · · · · · · · · · · · · · | |
| | IPT oilfield waste which is non-hazardous by characteristic |
| analysis or | by product identification |
| and that nothing has been added to the exempt or nor | Revenut non-hazardous waste defined above |
| and that hadring has been added to the exempt of her | r cacimpt northazardous waste defined above. |
| For NON-EXEMPT waste the following documentate | tion is attached (check appropriate items): |
| MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| Chain of Custody | |
| | |
| | |
| | laturally Occurring Radioactive Material (NORM) pursuant |
| to 20 NMAC 3.1 subpart 1403.C and D. | • |
| | |
| n part of the second of the se | / |
| Name (Original Signature): ROBERT SMITH | ·
 |
| run der Maria | |
| Title: HSE ADUZSOR | |
| Date: 7-20-60 | |
| Jate: 7-20-00 | |

4600 8.

LGC-VIII CONCENTRATE - BULK

PAGE 1

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 *

PERCENT TLV

GUAR GUM 4000 16. 31-60 % 10 MG/M3 15 MG/M3

1-10 % NOT EST NOT EST ETHOXYLATED NONYLPHENOL 31-60 % NOT EST NOT EST

DIESEL (080 3-06-3) * * * * SECTION III - PHYSICAL DATA * * * *

> MEASUREMENT PROPERTY

YELLOWISH LIQUID, GEL APPEARANCE

ODOR DIESEL SPECIFIC GRAVITY (H2O=1) 1.035

LB/GAL BULK DENSITY 8.62

NOT DETERMINED PΗ

SOLUBILITY IN WATER AT

20 DEG C. GMS/100ML H20 NIL BIODEGRADABILITY SLOWLY PERCENT VOLATILES 100

EVAPORATION RATE (BUTYL ACETATE=1) <1 5-6 VAPOR DENSITY 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 2 REACTIVITY 0 SPECIAL FLAMMABILITY NONE

128 F / 53 C FLASH MTHD TCC FLASH POINT

ND F / C AUTOIGNITION TEMPERATURE ND

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/DUPPER

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

PN: 516005670 PAGE

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

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

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. BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.

VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

SKIN:

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 -------------

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

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.

PN: 516005670 PAGE 3

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

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.

First 5 NM 88210 FIF (505) 334-6178 io Brazos Road VM 87410

LIV - (505) 827-7131

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

Submit Origi:
Plus I Co
to appropria
District Offi

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE RCRA Exempt: L Non-Exempt: 📈 Generator Verbal Approval Received: Yes 5. Originating Site I herey Management Facility Destination 6. Transporter nvironmental Address of Facility Operator 8. State Location of Material (Street Address or ULSTR) farmington 640 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. 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 nazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport. HEF DESCRIPTION OF MATERIAL: Weste From Shop Sumps

| imated Volume ———————————————————————————————————— | (nown Volume (to be entered by the operator at the end of the haul) | • |
|---|---|---|
| SNATURE: Yasia Management Facility Author PE OR PRINT NAME: Description | | • |

nis space for State Use)

= ROVED BY: Martyn & Kuly

TITLE: Environment Gedagist

DATE: 0-7-0

eologist 8/2

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|--|---|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. |
| Four Corners Division | Crouch Mesa Landfarm |
| 5851 US Highway 64 | 420 C.R. 3100 |
| Farmington NM, 84701 | Aztec, NM 87401 |
| | |
| 3. Originating Site: (name); | Location of the Waste (Street Address &/or ULSTR) |
| Key Energy Services, Inc. | Shop Sumps of our Main Facility located |
| Four Comers Division | at the address listed to the left. |
| 5651 US Highway 64 | |
| Farmington, NM 87401 | • |
| (Attach list of origination sites as appro | xpriate) |
| 4. Source and Description of Waste | |
| | e address in the main rig shop, wash bay and engine shop. This is |
| | e 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 | on and Recovery Act (RECA) and Environmental Protection |
| Agency's July 1988, regulatory determi | ination, the above described waste is: |
| (Check appropriate classification) | |
| (5 | |
| | |
| 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 | e exempt or non-exempt non-hazardous waste defined above. |
| | e exempt or non-exempt non-hazardous waste defined above. |
| | owing documentation is attached (check appropriate items): |
| For NON-EXEMPT waste only the follo | owing documentation is attached (check appropriate items): X Other (description): |
| For NON-EXEMPT waste only the folio | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the following MSDS information RCRA Hazardous With the following MSDS information and the following management of th | owing documentation is attached (check appropriate items): X Other (description): |
| For NON-EXEMPT waste only the folio | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the following MSDS information RCRA Hazardous With the following MSDS information and the following management of th | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the following MSDS information RCRA Hazardous With the following MSDS information and the following management of th | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the folion MSDS Information RCRA Hazardous William Of Custody | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the following MSDS information RCRA Hazardous With the following MSDS information and the following management of th | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the foliomSDS Information RCRA Hazardous William Chain of Custody Name (Original Signature): | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, Please note test results. |
| For NON-EXEMPT waste only the folion MSDS Information RCRA Hazardous William Chain of Custody Name (Original Signature): | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, |
| For NON-EXEMPT waste only the folion MSDS Information RCRA Hazardous William Chain of Custody Name (Original Signature): Title: Farmington | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, Please note test results. On Shop Manager |
| For NON-EXEMPT waste only the foliomSDS Information RCRA Hazardous William Chain of Custody Name (Original Signature): | owing documentation is attached (check appropriate items): X Other (description): Testing done by Envirotech, Please note test results. |





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

Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/key.wpd





SUSPECTED HAZARDOUS WASTE ANALYSIS

Client: Sample ID: Key Energy Rig Shop Sump Project #: Date Reported: 806503

Lab ID#:

H735

Date Reported:

07-17-00 07-14-00

Sample Matrix:

Sludge

Date Sampled: 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.

u. L. Opperen

Analyst

Review Walter



| 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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 |

| QA/QC Acceptance Criteria | Parameter | Percent Recovery |
|---------------------------|------------------|------------------|
| | Trifluorotoluene | 98% |

Bromofluorobenzene

98% 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.

Deur L. Cylenen Analyst

Review Malters





| 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 |

| 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.

Analyst

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| Client: | Kov Enorgy | Decinat #1 | 906503 |
|--------------------|-----------------|---------------------|----------|
| 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 |

| 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.

Den L. Ogenen

Priotini My Walters



| 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 |

| | Concentration | Det.
Limit | Regulatory
Level |
|-----------|---------------|---------------|---------------------|
| Parameter | (mg/L) | (mg/L) | (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 |

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.

Analyst

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QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



| 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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 |

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

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 L. Ojene

Pristing Walters



| Client: | QA/QC | Proiect #: | 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 |

| | Concentration | Detection
Limit | Regulatory
Limits |
|----------------------|---------------|--------------------|----------------------|
| Parameter | (mg/L) | (mg/L) | (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 |

| 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.

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

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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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 |

| | 100 100 | Duplicate | , | |
|----------------------|---------|-----------|-----------|------------|
| | Sample | Sample | Detection | |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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% |
| Tetrachioroethene | 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.

Delen L. Geen

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Client:

QA/QC

1

Sample ID:

Matrix Spike

N/A

Laboratory Number:

H735

07-18-00

Sample Matrix:

TCLP Extract

N/A

Analysis Requested:

TCLP

N/A 07-18-00

Condition:

N/A

Date Analyzed: Date Extracted:

Date Reported:

Date Sampled:

Date Received:

Project #:

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.

Paviou



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 | | Detection | Regulatory |
|-----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limit |
| Parameter | (mg/L) | (mg/L) | (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 . Oferen

Pristing Walters





| 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: | urrogate Recoveries: Parameter | |
|-----------------------|--------------------------------|-----|
| | 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 L. Office

pristing Walters





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 P. Oplewer

Phristini My Walters





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 L. Opinion

Priotini My Walters





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 | Darameter | Dargent Daggyany | İ |
| QA/QC Acceptance Criteria | Parameter | Percent Recovery | i. |
| • | | | J |

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 L. Offeren

Review Mistini My Walters





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.

Deur L. afer

Review Review



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 | Control of the Contro | n 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 | Spike. | Sample | 4.0 | Percent | Acceptance |
|--------------|--------|--------|--------|----------|------------|
| Conc. (mg/L) | Added | | Sample | Recovery | 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

Pristin M Walters

CHAIN OF CUSTODY RECORD

| Client / Project Name | Project Location | | Α | ANALYSIS / PARAMETERS | |
|--|------------------|---|--------------------------|-----------------------|-----------|
| Kar Ewerge | 5651 6 | US Hur 64 | | | |
| Sampler: | Client No. | | rs
>
&P | | Remarks |
| FARCED R. Bross | 396 | 98065-03 | o. of
rainer | | |
| Sample No./ Sample Sample Identification Date Time | Lab Number | Sample
Matrix | Con | | |
| Rigstop Somp 7.14.0 15:15 | 14738 | Sludge | - | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Selinquished by: (Signature) | | Date Time Recei | Received by: (Signature) | 2 | Date Time |
| Relinquished by: (Signature) | | | Received by: (Signature) | | |
| Relinquished by: (Signature) | | Recei | Received by: (Signature) | | |
| | | ENVIROTECH IN | CHINC | Sample Receipt | Receipt |
| | | | | | Y N/A |
| | | 5796 U.S. Highway 64 Farmington New Mexico 8740 | hway 64
Mexico 87401 | Received Intact | 7 |
| | | (505) 632-0615 | DA15 | Cool - Ice/Blue Ice | 1 |

District I - (505) 393-6161 P. O. Ecx 1980 Hobbs; NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 Rio Brazos Road

District IV - (505) 827-7131

c, NM 87410 مدرد

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 JUN 1 9 2000

Submit Original Plus I Copy to appropriate District Office

Form C-138

Originated 8/8/95

Environmental Bureau
Oil Conservation Division

Env. JN: 600,50-01

| | REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
|-------|---|--|
| 1. | RCRA Exempt: Non-Exempt: S. 26.00 | 4. Generator |
| | Verbal Approval Received: Yes ☑ No ☐ 7:50 | 5. Originating Site Aztec Plato |
| 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 Wein Mapico |
| 7. | Location of Material (Street Address or ULSTR) | Sec 12, 7300, RIW
SHW Juan County, a |
| | Circle One: A. All requests for approval to accept oilfield exempt wastes will be accommon Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accompreded to the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by |
| | (Borlington Sik Compressorsiks) Spill | JUN 2000 RECEIVED OIL CON. DIV DIST. 3 |
| Estir | mated Volume cy Known Volume (to be entered by the ope | erator at the end of the haul) ———————————————————————————————————— |
| SIG | NATURE: | 5/110- |
| TYF | PE OR PRINT NAME: Harlan M. Brown TEL | EPHONE NO |
| TI | his space for State Use) | |
| | PROVED BY: Monty of Muly TITLE: Geolog | DATE: 6/15/00 Notal Governor DATE: 6/19/00 |

OIL COMBERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIG SRAZOS ROAD AZTEC, NEW MEXICO 87410 (505) 314-6178 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 | Envirotech Inc. | | | | |
| #37 COUNTY ROAD 5267 | Soil Remediation Remediation Facility | | | | |
| FARMINGTON NM 87401 | 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 NI | | | | | |
| TOWNSHIP 30 NORTH RANGE 11 WEST | F 1220 FT FROM SOUTHLINE, 1813 FT | | | | |
| FROM WESTLINE SAN JUAN COUNTY | 1 1220 II FROM SOUTHLINE, 1013 FT | | | | |
| | | | | | |
| Attach list of originating sites as appropriate 4. Source and Description of Waste | | | | | |
| | | | | | |
| OIL FIELD WASTE RESIDUAL OIL FRO | OM THE TRUCK TANK BOTTOMS | | | | |
| | • | | | | |
| · | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| I, GERRY FOXWELL | representative for: | | | | |
| (Print Name) | do hereby certify that, | | | | |
| CF&M OIL FIELD SERVICES INC | ry Act (RCRA) and Environmental Protection Agency's July, | | | | |
| 1988, regulatory determination, the above described | waste is: (Check appropriate classification) | | | | |
| | | | | | |
| | IPT pilifield waste which is non-hazardous by characteristic | | | | |
| analysis or | by product identification | | | | |
| and that nothing has been added to the exempt or no | n-exempt non-hazardous waste defined above. | | | | |
| BIG that nothing has been added to the exempt of the | | | | | |
| For NON-EXEMPT waste the following documenta | tion is attached (check appropriate items): | | | | |
| MSDS Information | Other (description): | | | | |
| XX RCRA Hazardous Waste Analysis | | | | | |
| Chain of Custody | | | | | |
| Λ | | | | | |
| This was in in samellanes with Regulated a grade of the | Vaturally Occurring Radinactive Material (NORM) nursuant | | | | |
| 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. | | | | | |
| to 20 NWAC 3.1 Subpart 1403.6 and 5.1 | | | | | |
| X | 1,7,7 (%) | | | | |
| Name (Original Signature): | | | | | |
| / / / MYNIN | | | | | |
| Title: PRESIDENT (| | | | | |
| | | | | | |
| \lor | | | | | |
| Date: 06/07/00 | | | | | |



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 Metais |
| | | Det. | |
| Parameter | Concentration
(mg/L) | Limit
(mg/L) | |
| | | | |
| Arsenic | 0.124 | 0.002 | |
| Barium | 1.20 | 0.002 | |
| Cadmium | 0.126 | 0.002 | Towns of the |
| 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



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) | THE RESERVE AND ADDRESS OF THE PARTY OF THE | E Delecti | on Sample | Dupilcate | inier | Acceptance |
|--------------------------------------|-----------------------------|---|-----------|-----------|-----------|-------|------------|
| 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 | Spike | Sampl | | | Acceptance |
|--------------|-------|-------|--------|----------|------------|
| Conc. (ma/L) | AGOEU | | Sample | Recovery | Kanee |
| 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.

nalyst

Review

CHAIN OF CUSTODY RECORD

7886

| 7 | - | Cool - Ice/Blue Ice | 0615 | (505) 632-0615 | | | | |
|-------------|----------|---------------------|--------------------------|-------------------------------------|---------------------------|----------------|----------------|------------------------------|
| | 7 | Received Intact | hway 64
fexico 87401 | 5796 U.S. Higi
Farmington, New N | | | | |
| NA | ۲ | | | | een i | | | |
| | *ceipt | Sample Receipt | T TC | TOVIROTE | | | | |
| | | | Received by: (Signature) | Recei | | | ге) | Relinquished by: (Signature) |
| | | | Received by: (Signature) | Recei | | | (e) | Helinquished by: (Signature) |
| 14119 | ō | 3.5 | Charles P. Option | 01:410 | V | ξ
 | W. | Jack State |
| | Date | 2 | Ond by: (Signature) | Date Time Bacel | | | e) | Relinquished by: (Signature) |
| | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | * | | | | 4 |
| | | | 5 | 1,3 | H341 | 13:30 | 5.25.00 | North Jumps |
| | | | Cont | Sample
Matrix | Lab Number | Sample
Time | Sample
Date | |
| | Remarks | Re | o. of ainers | 00050-61 | Client No. | | Brows | Sampler: |
| | | NAMETERS | | AzTEL MotorCross TRACK: | Project Location Azere Ma | | | Client / Project Name |
| | | | | | | | | |

District I - (505) 393-6161 P. C. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210

Pi-trict III - (505) 334-6178

Rio Brazon Road

ALC. NM 87410

New Mexico Energy Minerals and Natural Resources Department VED Oil Conservation Division

Environmental Bureau

MAY 2 2 2000

Submit Original Plus I Copy to appropriate District Office

Form C-138

Originated 8/8/95

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

Oil Conservation Division 92132 Env. JN:

| latrict IV - (505) 827-7131 | Env. JN: 42132 |
|---|--|
| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
| 1. RCRA Exempt: Non-Exempt: . | 4. Generator Hallibuiton |
| Verbal Approval Received: Yes No 🔙 | 5. Originating Site Main Your |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Ewinoteely |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Daw Marico |
| 7. Location of Material (Street Address or ULSTR) | 4109 E. Main St.
Farminaton, Nu 87401 |
| 9. Circle One: | 3 1131 |
| A. All requests for approval to accept oilfield exempt wastes will be accepted acceptance; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigner. | ompanied by necessary chemical analysis to
on of origin. No waste classified hazardous by |
| BRIEF DESCRIPTION OF MATERIAL: | d for transport. |
| Continuation of wash boy S TCEP & Reaffermation 5 | MAY 2000 RECEIVED DIST. 3 erator at the end of the haul) — cy |
| SIGNATURE: Harlan M. Brown TYPE OR PRINT NAME: Harlan M. Brown TEL | DATE: 5.17.00 LEPHONE NO. 505-632-0615 |
| APPROVED BY: Martine Title: Smillion | 1 09 15 DATE: 5/8/00 |

RECEIVED MAY 1 7 2000



NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 67410 (305) 334-6178 Fax (505)334-6170

GARY E. JOHNSON

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name. |
|---|---|
| Halliberten Energy Service | Envirotech Inc.
Soil Remediation Remediation Facility |
| 4109 & Main My Marin Street | Landfarm #2, Hilltop,New Mexico 5796 US Hwy 64 Farmington, NM 87401 |
| Farming M Marie 87401 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): |
| Wash Bay Salone | 4109 E Marin |
| Holding area | Farmington M May |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste | · |
| Wash Bay solido Ccont | inestion) |
| | |
| | |
| 1, Doug Hosses | representative for: |
| Jolibuta Energ Services | do hereby certify that, |
| according to the Resource Conservation and Recover 1988, regulatory determination, the above described | y Act (RCRA) and Environmental Protection Agency's July, |
| 1500, regulatory determination, the above described | Waste 13. Check appropriate classifications |
| | IPT oilfield waste which is non-hazardous by characteristic by product identification |
| and that nothing has been added to the exempt or no | n-exempt non-hazardous waste defined above. |
| For NON-EXEMPT waste the following documenta MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | tion is attached (check appropriate items): Other (description): |
| This waste is in compliance with Regulated Levels of No. | Naturally Occurring Radioactive Material (NORM) pursuant . |
| Name (Original Signature): Nous Holis Title: Maintennes Lessensis |) |
| Date: 5/16/00 | |
| | |



RECEIVED MAY 1 7 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

2-10-00

Printed Name

DOUG HOOGES

Title / Agency

Thanteron Deparin

Address

4109 E Main

Signature

Dong Nordal

Date

5/16/00

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

Łaboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/Hall.wpd



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client: Sample ID: Halliburton Energy Services

Project #: Date Reported: 213201 02-10-00

Lab ID#:

Wash Bay Sludge G811

Cool and Intact

Date Sampled:

02-10-00

Sample Matrix: Preservative:

Sludge

Date Received:

02-10-00

7673

Condition:

Cool

Date Analyzed: Chain of Custody: 02-10-00

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



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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.

Alex L. Offere

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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



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.

Allen P. apena

Pristing Waters



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 |

| | | Det. | Regulatory |
|-----------|---------------|--------|------------|
| | Concentration | Limit | Level |
| Parameter | (mg/L) | (mg/L) | (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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QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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 |

| | Canaantustian | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| Dawawatan | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 |
| Tetrachioroethene | ND | 0.0005 | 0.7 |
| Chiorobenzene | 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-ar | ge-and-Trap, SW-846, USEPA, July 1992. | | |
| | Method 8010, Halogena | d 8010, Halogenated Volatile Organic, SW-846, USEPA, Sept. 1994. | | |
| | Method 8020, Aromatic | Volatile Organics, SW-846, USEPA, Se | ept. 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.

Allen R. Gieren Christin of Walls
Review



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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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EPA METHODS 8010/8020 AROMATIC / HALOGENATED VOLATILE ORGANICS QUALITY ASSURANCE REPORT

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| 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 |

| Duplicate | | | | |
|----------------------|--------|--------|-----------|------------|
| | Sample | Sample | Detection | |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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.



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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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 | | Detection | Regulatory |
|-----------------------|---------------|-----------|------------|
| _ | Concentration | Limit | Limit |
| Parameter | (mg/L) | (mg/L) | (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.

Allen L. Gelevan

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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 L. Cyleun

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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.

Allen L. Ofeen



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) |
|---------------------|-------------------------|-------------------------|-------------------------------|
| D. J. B. | | | |
| 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 | NĎ | 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 Quu



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.



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: | TOLD |

| | Sample | Sample Duplicate | | Det. | |
|---------------------|-----------------------|------------------|------------|--------|--|
| | Result Result Percent | | Percent | Limit | |
| Parameter | (mg/L) | (mg/L) | Difference | (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.

| OAIOO AA Oulderde | B | D:66 |
|-------------------------------|--------------|--------------------|
| QA/QC Acceptance Criteria | Parameter | Maximum Difference |
| are are recorptanted critical | - uiuiiioioi | maximam binorono |

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.

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

Deur h. Chur



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 | Instrument | Method | Detection | n Sample | Duplicate | % | Acceptance |
|-------------------|--------------|-------------|----------------|----------|-----------|---------------|-------------------|
| Conc. (mg/L) | Blank/
ND | Blank
ND | Limit
0.001 | 0.067 | 0.066 | Diff.
1.5% | Range
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 | Spike | Spike Sample | | Percent | Acceptance | |
|--------------|-------|--------------|----------|----------|------------|--|
| Conc. (mg/L) | Added | 1995 | . Sample | Recovery | 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

| Client / Project Name Harri Burtau Ewryg T Services | 57 Sarvice | Project Locatio | #42.2 | | ANALYSIS / PARAMETERS | RAMETERS | | |
|---|----------------------------|-----------------|---|--------------------------|-----------------------|-----------------|----------------|--------|
| Sampler: | | <u> </u> | 187 - 68 | steni | | | Remarks | |
| | Sample Sample
Date Time | Lab | ¥1 | Conta | | | | |
| | 9 | 0 6811 | Stube | 7 | | | | |
| | | | 7 | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| Relinquished by: (Signature) | / | | Time | Received by: (Signature) | 7 | | | Time / |
| Jaka Dr. Br | | | \$0:01 00:01.20 | 1 1 | Sheren- | | 00.01.7 | 10.01 |
| Relinquished by: (Signature) | | | Hece | Heceived by: (Signature) | • | | | |
| Relinquished by: (Signature) | | | Recei | Received by: (Signature) | | | | |
| | | | ENVIROTECH INC | CHIC | | Samp | Sample Receipt | _ |
| | | | | | | | z | ž |
| | | | 5796 U.S. Highway 64 Farmington, New Mexico 87401 | hway 64
fexico 87401 | | Received Intact | Ž / | |
| | | | C190-259 (C0C) | 6190 | | P10 P21 - 1000 | D2 | |

District I - (505) 393-6161 P. C. Box 1980 Hocos, NM 88241-1980 District II - (505) 748-1283 81 1-5. First Artesia, NM 88210 P'-trict III - (505) 334-6178

7 Rio Brazos Road

Review 5-15-00 mg 4 New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

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

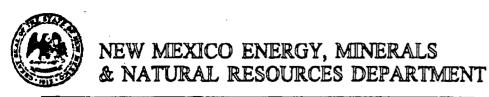
Form C-138 Originated 8/8/95

> Submit Original Plus I Čopy to appropriate District Office

00018-01

| NIM 07410 | (505) 827-713 | |
|--|----------------------------|----------|
| District IV - (505) 827-7131 | | Env. JN: |
| the state of the s | | |
| | DECLIEGT COD ADDOOM! TO 46 | |

| The Section of the Se | |
|--|---|
| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Durce |
| Verbal Approval Received: Yes 🔀 No 🔲 | 5. Originating Site C.R.SUSD |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Faurratech |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State New Westico |
| 7. Location of Material (Street Address or ULSTR) | 8. State New Mexico
Sely See 9. 729N, RIIW, SJ |
| 9. Circle One: | |
| A. All requests for approval to accept oilfield exempt wastes will be accept acceptance; one certificate per job. B. All requests for approval to accept non-exempt wastes must be acceptance. PROVE the material is not-hazardous and the Generator's certification is strong or testing will be approved. | ompanied by necessary chemical analysis to |
| All transporters must certify the wastes delivered are only those consigne | d for transport. |
| BRIEF DESCRIPTION OF MATERIAL: | |
| Clean up of soil conteminated with the RCRARCE ATTAKLED | abad. |
| Estimated Volume | erator at the end of the haul) ———————————————————————————————————— |
| SIGNATURE: Handfarm I Waste Management Facility Authorized Agent | Manager DATE: 05.15.00 |
| TYPE OR PRINT NAME: Harlan M. Brown TEI | EPHONE NO |
| (This space for State Use) | |
| APPROVED BY: Demy Si tent TITLE: Geo | 109 15 DATE: 57/7/00 |
| APPROVED BY: TITLE: Environme | no Geologist DATE: 5-16-00 |



RECEIVED MAY 4 2000

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

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| Generator Name and Address: | 2. Destination Name: |
|---|---|
| USDI-BLM | Envirotech Inc. |
| Environmel Compliance
1235 E. La Plata Hur, 5te A. | Soil Remediation Remediation Facility |
| | Landfarm #2, Hilltop,New Mexico |
| Farmington, NM-87401 | 5796 IIS Hwy 64, Farmington, NM 87401 |
| 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): |
| ILLEGAL Dump SITE | SE 1/4 Sec 9, TZ9N , RILW, SJC. |
| Combyld. 5030 | |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste | |
| Illegally damped anals | ited of B to Session |
| Ruben A. Sanche | representative for: 1225 La Plata Hwy Introd Farmington, UM do hereby certify that, |
| (Print Name) | 1235 La Plata Hwy |
| Bureau of land Wat - Dept of - | Interior Forminstan, Um do hereby certify that, |
| according to the Resource Conservation and Recover | y Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described v | waste is: (Check appropriate classification) |
| EXEMPT oilfield waste NON-EXEM analysis or | IPT oilfield waste which is non-hazardous by characteristic by product identification |
| and that nothing has been added to the exempt or not | n-exempt non-hazardous waste defined above. |
| For NON-EXEMPT waste the following documentar MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | tion is attached (check appropriate items): Other (description): |
| This waste is in compliance with Regulated Levels of N
to 20 NMAC 3.1 subpart 1403.C and D. | laturally Occurring Radioactive Material (NORM) pursuant |
| Name (Original Signature): Index A. S. Title: Environmenta Instection | Jean Lead |
| Date: May 2, 2000 | |

ENVIROTECH LABS

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

Laboratory Coordinator / Environmental Scientist

enc.

CMW/cmw

C:/files/labreports/BLM.wpd



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



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 |
| | | | |

| | Concentration | Detection
Limit | Regulatory
Limits |
|----------------------|---------------|--------------------|----------------------|
| Parameter | (mg/L) | (mg/L) | (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 Acce | ptance Criteria | Parameter | Percent Recovery |
|-------------|------------------------|--|------------------|
| | | Trifluorotoluene
Bromofluorobenzene | 98%
e 99% |
| References: | | haracteristic Leaching Procedure, S | |
| | Method 5030, Purge-and | d-Trap, SW-846, USEPA, July 1992. | • |
| • | Method 8010, Halogena | ted Volatile Organic, SW-846, USEF | PA, 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.

Den L. Office Review Review



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.

Alexa L. Office.



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 | Det.
Limit | Regulatory
Limit |
|---------------------|---------------|---------------|---------------------|
| Parameter | (mg/L) | (mg/L) | (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 | Davasatas | Danaget Danassas |
|---------------------------|-----------|------------------|
| UA/UC Acceptance Criteria | Parameter | Percent Recovery |
| | | . Crock 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.

Dece L. Ofuen

Misting Waters



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 |
| | | | |

| | | Det. | Regulatory |
|-----------|---------------|--------|------------|
| | Concentration | Limit | Level |
| Parameter | (mg/L) | (mg/L) | (mg/L) |
| | | | |
| Arsenic | 0.031 | 0.001 | 5.0 |
| Barium | 1.42 | 0.001 | 21 |
| Cadmium | 0.012 | 0.001 | 0.11 |
| Chromium | 800.0 | 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.

Analyst

Mustine my Walter



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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) |
|----------------------|-------------------------|------------------------------|--------------------------------|
| Tarameter | (mg/L) | (mg/L) | (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.

Der P. Ofice



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 |

| | Concentration | Detection
Limit | Regulatory
Limits |
|----------------------|---------------|--------------------|----------------------|
| Parameter | (mg/L) | (mg/L) | (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.

| | Percent Recovery |
|--------------------|--|
| Trifluorotoluene | 99% |
| Bromofluorobenzene | 98% |
| | Trifluorotoluene
Bromofluorobenzene |

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 Que



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 |

| | | Duplicate | | |
|----------------------|--------|-----------|-----------|------------|
| | Sample | Sample | Detection | |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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.

(Review Matter



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: | Н096 | 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 |

| | | | Spiked | | | SW-846 |
|----------------------|--------|--------|------------------|--------|----------|-------------------|
| | Sample | Spike | Sample
Result | Det. | | % Rec.
Accept. |
| | Result | Added | | Limit | Percent | |
| Parameter | (mg/L) | (mg/L) | (mg/L) | (mg/L) | Recovery | 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.

Analyst

Review M Walten



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 | Concontration | Detection | Regulatory |
|-----------------------|-------------------------|-----------------|-----------------|
| Parameter | Concentration
(mg/L) | Limit
(mg/L) | 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.

Analyst

Review



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.

Aleu L. Oferen



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.

den L. Opera (Review Review



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 P. Office

Misting Walter



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.

| | 1000 | | |
|---------------------------|-----------|------------------|--|
| OA/OC Assessance Criteria | Danamatan | Danagat Danasa | |
| 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.

Alle L. Cofee

Review



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.

Alen L. Green



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: | Н096 | 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 | CONTRACTOR OF THE STATE OF THE | Method | Detection | Sample | Duplicate | % % | Acceptance |
|-------------------|---|-------------|-----------|--------|-----------|------|------------|
| Conc. (mg/L) | Blank
ND | Blank
ND | 0.001 | 0.022 | 0.022 | 0.0% | Range |
| 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' | Spike | Sample | Spiked | -Percent | Acceptance |
|--------------|-------|--------|--------|----------|------------|
| Conc. (mg/L) | Added | | Sample | Recovery | 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.

Analyst

CHAIN OF CUSTODY RECORD

| _ | | | rroject Location
GR S030 | 30 | | ANALYSIS / PARAMETERS | METERS | | |
|-----------------------------------|----------------------------|-------|-----------------------------|---|--------------------------|---|---------------------|-----------------|--------------------|
| Sampler: REP | | Clier | Client No. 60 1 80 [| | o of ainers | | | Remarks | |
| Sample No./ Sam Identification Da | Sample Sample
Date Time | | Lab Number | Sample
Matrix | | | | | |
| SPT.#1 411 | 411.00 1430 | | H697 | 7/05 | | | | | |
| | | | | | | | 5PT. | SPT. CONTROSITE | SITE |
| | | | | · | | | | | |
| | | | | | | | SAMPLE MASSEDIE | E HE | 550/1 |
| | | | | | | | 2000 | 7, | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| • | | | | | | | | | |
| Relinquished by: (Signature) | | | - | Date Time Recei | Received by: (Signature) | 13 | | Date
 | Time $/\mu$. 50 |
| Relinquished by: (Signature) | | | | Recei | Received by: (Signature) | Total Control | | | |
| Relinquished by: (Signature) | | | | Recei | Received by: (Signature) | | | | |
| | | | | OVIDOTECH IOC | CHIC | | Sample | Sample Receipt | |
| | | | | | | | | > | Z
A |
| | | | | 5796 U.S. Highway 64
Farmington New Mexico 87401 | 1way 64
Jexico 87401 | | Received Intact | | |
| | | | | (505) 632-0615 | 0615 | | Cool - Ice/Blue Ice | 9 | |

Dietrice 3 - (505) 393-6161 P. O. Box 1980 Hotels NM 88241-1980

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 I Copy to appropriate District Office

Env .IN·

| 10001, 1414 002-11-1300 |
|------------------------------|
| District II - (505) 748-1283 |
| 311 S. First |
| Artesia, NM 88210 |
| 1-trict III - (505) 334-6178 |
| Rio Brazos Road |
| د. NM 87410 |
| District IV - (505) 827-7131 |
| |

| BUTCE IV - (DUD) 627-7131 | |
|---|--|
| REQUEST FOR APPROVAL TO ACCEPT | |
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Production o porc |
| Verbal Approval Received: Yes No 🔀 | 5. Originating Site PDT YARRO |
| 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 Hoppico |
| 7. Location of Material (Street Address or ULSTR) | 4000 Lones St.
Farming for PM 87401 |
| 9. Circle One: | 3 |
| A. All requests for approval to accept oilfield exempt wastes will be accepted acceptance; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accepted and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by |
| All transporters must certify the wastes delivered are only those consigned | i for transport. |
| BRIEF DESCRIPTION OF MATERIAL: | ~ A |
| Used maler oil contoninated s | el. |
| Usel moler oil contoninated so
TCCP metals AWACTSIS ATT
USDS ATTACHED. | achd. |
| USDS ATTACHED. | ·
· |
| | |
| | |
| Estimated Volume cy Known Volume (to be entered by the ope | erator at the end of the haul) ———————————————————————————————————— |
| SIGNATURE: Handfarm M Waste Management Facility Authorized Agent | anager DATE: 5.15.00 |
| Harlan M. Brown | EPHONE NO |
| | |
| (This space for State Use) | |
| APPROVED BY: Deny Jens TITLE: Geold | 09 (3) DATE: 57/7/00 |
| APPROVED BY: Markyn May TITLE: Environm | ntal Geologist DATE: 5-16-00 |

CERTIFICATE OF WASTE STATUS

| Generator Name and Address: | 2. Destination Name: | | | | |
|---|---|--|--|--|--|
| Schlumberger | Envirotech Soil Remediation Facility | | | | |
| Production Operator's, Inc | Landfarm # 2 | | | | |
| 4000 Lomas Street | Hwy 550 (formerly Hwy 44) | | | | |
| Farmington, NM 87401 | 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 cor | mpressors during normal operations and | | | | |
| maintenance. | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| I, Charley Weah | kee representative for: | | | | |
| (Print Name) | T 1 1. 1 2.0 | | | | |
| Schlumberger, Production Operator's | | | | | |
| that according to the Resource Conservation | | | | | |
| Agency's July, 1988, regulatory determinatio (Check appropriate classification) | n, the above described waste is: | | | | |
| EXEMPT oilfield waste | XNON-EXEMPT oilfield waste | | | | |
| EXEMIT I Official 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. | | | | |
| | non-nazardous waste defined above. | | | | |
| | | | | | |
| For EXEMPT waste only, the following | For NON-EXEMPT waste only, the following | | | | |
| documentation is attached (check appropriate items) | documentation is attached (check appropriate items) | | | | |
| | X MSDS Information | | | | |
| NORM Survey | X TCLP Analysis | | | | |
| TCLP Analysis | X Chain of Custody | | | | |
| | X_NORM Survey | | | | |
| | Other (description) | | | | |
| | | | | | |
| | 7 N | | | | |
| Name (Original Signature): Charley & Neglier Title: QHSE Coordinator POI | | | | | |
| Title: OHSE Coordinator POI | | | | | |
| Date: $5/15/\infty$ | | | | | |



Inter-Mountain Laboratories, Inc.

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

Client:

Production Operators, Inc.

Project:

POLYARD

Sample ID:

Sample #1/2 Comp.

Lab ID:

0300S01962

Matrix:

Soil

Condition:

Cool/Intact

2506 West Main Street, Farmington, NM 87401

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 |
| ead | 9 | 5 | 100 | mg/Kg |
| Mercury | <0.1 | 0.1 | 4 | mg/Kg |
| elenium | <4 | 4 | 20 | mg/Kg |
| ilver | <2 | 2 | 100 | mg/Kg |

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

Reviewed By:

William Lipps

305

Total Metals

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:06/30/92

******* ******* I. PRODUCT IDENTIFICATION

MOBIL PEGASUS 485 SUPPLIER:

24-HOUR EMERGENCY (CALL COLLECT):

MOBIL OIL CORP. (609) 737-4411

CHEMICAL NAMES AND SYNONYMS:

CHEMTREC:

PET. HYDROCARBONS AND ADDITIVES

(800) 424-9300

USE OR DESCRIPTION:

PRODUCT AND MSDS INFORMATION:

NATURAL GAS ENGINE OIL (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:

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.

************************************* --- 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

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

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.

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.

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.

MOBIL PEGASUS 485

- 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.

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:

605816-00 Page 4 of 4

CHEMICAL NAME

ZINC (ELEMENTAL ANALYSIS) (.03%)
PHOSPHORODITHOIC ACID, 0,0-DI C114-ALKYL ESTERS, ZINC SALTS (2:1)
(ZDDP) (.24%)

CAS NUMBER

7440-66-6
15
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. INGREDIENT | ſS | ***** | ***** |
|---------------------------------------|----|----------|--------------|
| INGREDIENT DESCRIPTION | F | PERCENT | CAS NUMBER |
| . <> | 1 | <> | > |
| CONTAINS THE FOLLOWING BASE OILS: | > | 95.00 | |
| DISTILLATES (PETROLEUM), HYDROTREATED | | | 64742-54-7 |
| HEAVY PARAFFINIC | | | |
| DISTILLATES (PETROLEUM), SOLVENT- | | | 64742-65-0 |
| DEWAXED HEAVY PARAFFINIC | | | |
| AMINES, POLYETHYLENEPOLY-, REACTION | < | 2.00 | 68439-80-5 |
| PRODUCTS WITH SUCCINIC ANHYDRIDE | | | |
| POLYBUTENYL DERIVS. | | • | |
| SULFONIC ACIDS, PETROLEUM, | < | 2.00 | 61789-86-4 |
| CALCIUM SALTS | | | i e |
| ZINC DITHIOPHOSPHATE | | 0.26 NJT | 800967-5469P |
| CALCIUM SALTS | • | | |
| ZINC DITHIOI HOST HAIL | | 0.20 NJ1 | 000001 34091 |

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

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 Pi-trict III - (505) 334-6178

7 Rio Brazos Road

District IV - (505) 827-7131

c, NM 87410 ندسم

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 0 5 2000

Environmental Bureau

Oil Conservation Division

Form C-138 Originated 8/8/95

> Submit Original Plus I Čopy to appropriate District Office

Env. JN: 95026

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE | | | | | |
|---|--|--|--|--|--|--|
| 1. RCRA Exempt: Non-Exempt: 🔁 | 4. Generator BJ Services | | | | | |
| Verbal Approval Received: Yes ☐ No ☑ | 5. Originating Site HP. 28.75 Hwrs | | | | | |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Eavinotech | | | | | |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State New Mayor co | | | | | |
| 7. Location of Material (Street Address or ULSTR) | SESE See ZZ, T32NR8W | | | | | |
| 9. <u>Circle Qne</u> : | SJ. Comby NY: | | | | | |
| A. All requests for approval to accept oilfield exempt wastes will be acceded Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accept PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by | | | | | |
| BRIEF DESCRIPTION OF MATERIAL: Clean up of material, Authoroge, hydroclic oil @ a four which de accident on. NAM HWT 511 TCLP Metals attached MAY 2000 RECEIVED ONLOW DIST. 9 Estimated Volume — Cy Known Volume (to be entered by the operator at the end of the haul) — cy | | | | | | |
| SIGNATURE: Landfarm M Waste Management FacilityAuthorized Agent TYPE OR PRINT NAME: Harlan M. Brown TELI | DATE: 05.03.00 EPHONE NO. 505-632-0615 | | | | | |
| APPROVED BY: Martin & Martin & TITLE: Environm | DATE: 5/4/00
DATE: 5/5/00 | | | | | |

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:
Envirotesh FOC, LAWBERDER #2 |
|--|---|
| BJ. Sorvices 3250 Southside River-Road | 1/1/ |
| | 1 |
| Farmington, NW 57400 | 14 mile 5. of Bloom Field. |
| 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): |
| M.P. 28.75 NOW HOWY 511 | SESE, Sec 22, T.32D R8W |
| Truck obcaidant | 5.J.C. DH |
| ì | 5.5, 6, 6, |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste | |
| Soil contominated with | ue tor oil, Hydraulic Fluid
velicle Truck Accident. |
| &, Anthrope a 4 | velviche Truck Accident. |
| | |
| , 2 | |
| 1, Les Baugh (Print Name) BJ Services | representative for: |
| P7 (Print Name) | |
| according to the Resource Conservation and Recove | do hereby certify that, ry Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described | • |
| EXEMPT oilfield waste | MPT oilfield waste which is non-hazardous by characteristic r by product identification |
| and that nothing has been added to the exempt or no | on-exempt non-hazardous waste defined above. |
| For NON-EXEMPT waste the following documents MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | ation is attached (check appropriate items): Other (description): |
| This waste is in compliance with Regulated Levels of to 20 NMAC 3.1 subpart 1403.C and D. | Naturally Occurring Radioactive Material (NORM) pursuant |
| Name (Original Signature): | L |
| Title: Facilitie Supervisor | <u>-</u> |
| Date: 5/3/00 | |
| | |



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 |
| | | | |

| | | Det. | Regulatory | |
|-----------|---------------|--------|------------|--|
| | Concentration | Limit | Level | |
| Parameter | (mg/L) | (mg/L) | (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



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 | Instrument | Method | Detection | Sample | Duplicate | . % | Acceptance |
|-------------------|------------|--------|-----------|--------|-----------|-------|------------|
| Conc. (mg/L) | Blank | Blank | Limit | | | Diff. | 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% |

| Opinio . | Spike | Sampl | | | Acceptance |
|--------------|-------|-------|--------|----------|------------|
| Conc. (mg/L) | Added | | Sample | Recovery | 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 M. Waiters

CHAIN OF CUSTODY RECORD

| Client / Project Name | Project Location | H: 04 SIIN | | | |
|--|------------------|--|--------------------------|---------------------|------------------------|
| | | | ANALYSIS / PARAMETERS | AMETERS | |
| to services | MILE MARKER | Ken 36.75 | | | |
| Sampler: | Client No. | | • | Ren | Remarks |
| Kelly Johnson | Soacod | 24
24 | <u>ښ</u> | | |
| Sample No./ Sample Sample Identification Date Time | Lab Number | Sample
Matrix | Cont
الرو | | |
| 0 | 4174 | 400il Amen | \ | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Relinguished by: (Signature) | 7 | Date Time Received 1 1/9/00 3:000 (| Received by: (Signature) | 0 P | Date Time /2/α/ 1/3/40 |
| Relinquished by: (S)gnature) | | | Received by: (Signature) | | |
| Relinquished by: (Signature) | | Received | Received by: (Signature) | | |
| | | FOVIROTECH IOC | | Sample Receipt | ceipt |
| | | | | | N N/A |
| | | 5796 U.S. Highway 64
Farmington, New Mexico 87401 | ly 64
Ico 87401 | Received Intact |) |
| | | (505) 632-0615 | 5 | 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 Pi-trict III - (505) 334-6178 Rio Brazos Road

Auc, NM 87410 Dia

APPROVED BY:

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

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

MAY 0 5 2000

Submit Original

Form C-138

Originated 8/8/95

Env

TITLE: Envivonmel Gologist DATE: 5/5/00

Plus 1 Čopy Environmental Bureau to appropriate Oil Conservation Division District Office IN. 9502/

| strict IV - (505) 827-7131 | 13026 | |
|---|---------------------------------|--|
| REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE | | |
| 1. RCRA Exempt: Non-Exempt: 🔀 | 4. Generator B.J. Sorulces | |
| Verbal Approval Received: Yes 🔲 No 🗵 | 5. Originating Site plan a Yand | |
| 2. Management Facility Destination Envirotech Soil Remedia. 6. Transporter Envirotech Landfarm #2 | | |
| 570C HC H: 1 | | |
| 3. Address of Facility Operator Farmington, NM 87401 8. State Now Marcial (Street Address or ULSTR) 3. Address of Facility Operator Farmington, NM 87401 8. State Now Marcial (Street Address or ULSTR) | | |
| 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. | | |
| Condrandion of work buy Solids. MAY 2000 RECEIVED OHLOON DAY DIST. 3 READS, run arrion Statumed Attanham CREEN HANDERS | | |
| Estimated Volume cy Known Volume (to be entered by the operator at the end of the haul) cy | | |
| SIGNATURE: Harlan M. Brown TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. TELEPHONE NO. | | |
| (This space for State Use) APPROVED BY: Deny 9. Frent TITLE: Ged log 131 DATE: 574/00 | | |

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 | 2. Destination Name: Remodiation Facility | |
|--|---|--|
| 3250 South Eide Kwer KOAO | LANDFARM #2 | |
| FARMINGTON, New Mexico 87401 | Hilltop, New Mexico | |
| 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): | |
| BJ Services, Main Yard
3250 South side River ROAD | Same-Wash Bay Solids Facility | |
| | • | |
| Parmington, N.M. 87401 | | |
| Attach list of originating sites as appropriate 4. Source and Description of Waste | | |
| CONTINUATION of WARN BAY Solids. | | |
| | | |
| · | | |
| | | |
| , , | | |
| 1. Les Baugh | representative for: | |
| BI Servies (Print Name) | do hereby certify that, | |
| according to the Resource Conservation and necovery Act (ACRA) and Environmental Protection Agency's July, | | |
| 1988, regulatory determination, the above described waste is: (Check appropriate classification) | | |
| EXEMPT oilfield waste X NON-EXE | MPT oilfield waste which is non-hazardous by characteristic | |
| analysis or by product identification | | |
| and that nothing has been added to the exempt or no | on-exempt non-hazardous waste defined above. | |
| For NON-EXEMPT waste the following documentation is attached (check appropriate items): | | |
| MSDS Information | V Other Idescription): | |
| X RCRA Hazardous Waste Analysis | Reaffirmation Statement | |
| Chain of Custody | | |
| | | |
| · · · · · · · · · · · · · · · · · · · | Naturally Occurring Radioactive Material (NORM) pursuant | |
| to 20 NMAC 3.1 subpart 1403.C and D. | • | |
| | 8 | |
| Name (Original Signature): 718 | <u> </u> | |
| Title: Facilities Supervisor | | |
| Date: 5/2/00 | | |
| Date: 5/3/00 | | |
| | | |



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 Super visor

Address 3250 Suthside Kiver KOAO

tarmington, New Mexico

Signature

Date <u>5/3/00</u>

ENVIROTECH LABS

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

Mistin M Walters

enc.

CMW/cmw

C:/files/labreports/BJ.wpd

ENVIROTECH LABS

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: Preservative:

Sludge Cool Date Received: Date Analyzed:

02-10-00

Condition:

Cool and Intact

Chain of Custody:

7672

Parameter

Result

IGNITABILITY:

Negative

CORROSIVITY:

Negative

08.8 = Hq

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

Mistari M Waster Review



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 C | haracteristic Leaching Procedure, SW- | -846, USEPA, July 1992. |
| | Method 5030, Purge-and | d-Trap, SW-846, USEPA, July 1992. | |
| | Method 8010, Halogenat | ted Volatile Organic, SW-846, USEPA, | Sept. 1994. |
| | Method 8020, Aromatic | Volatile Organics, SW-846, USEPA, Se | ept. 1994. |
| Note: | Regulatory Limits based | on 40 CFR part 261 Subpart C section | n 261.24, July 1, 1992. |
| Comments: | 3250 Southside Riv | er Rd., Farmington, NM. | |



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.

Allen h. Open an

Review



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.

Den L. Quern Analyst

/ Mistine My Walters
Review



EPA METHOD 1311 TOXICITY CHARACTERISTIC LEACHING PROCEDURE TRACE METAL ANALYSIS

5.7

0.14

| 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 |
| | | Det. | Regulatory |
| | Concentration | Limit | Level |
| Parameter | (mg/L) | (mg/L) | (mg/L) |
| Amania | | | |
| Arsenic | 0.067 | 0.001 | 5.0 |
| Barium | 0.067
0.585 | 0.001
0.001 | 5.0
21 |
| | | | |
| Barium | 0.585 | 0.001 | 21 |
| Barium
Cadmium | 0.585
0.035 | 0.001
0.001 | 21
0.11 |

ND - Parameter not detected at the stated detection limit.

References:

Selenium

Silver

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.

0.037

0.016

Methods 6010B Analysis of Metals by Inductively Coupled Plasma-Atomic Emission

0.001

0.001

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

Mister of Walla



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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) |
|----------------------|----------------------|------------------------------|--------------------------------|
| 13 | (g. –/ | \s.=/ | \3/ |
| 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 | j |
|---------------------------|--------------------|------------------|---|
| | 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.

Den L. Quenen

Misteri m Walters
Review



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 |
| Tetrachioroethene | 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.

Dem L. Queran

Mister by Leeles
Review



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 |

| | | Duplicate | | |
|----------------------|--------|-----------|-----------|------------|
| 1 | Sample | Sample | Detection | |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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 L. General

Mistini m Valus
Review



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

Client:

QA/QC

Project #:

Date Sampled:

N/A

Sample ID:

Matrix Spike

Date Reported:

02-16-00

Laboratory Number:

G810

N/A

Sample Matrix:

TCLP Extract

N/A

Analysis Requested:

TCLP

Date Received: Date Analyzed: Date Extracted:

02-14-00 02-11-00

0111 0 10

Condition:

N/A

| | | | Spiked | | | SW-846 |
|----------------------|--------|--------|--------|--------|----------|---------|
| | Sample | Spike | Sample | Det. | Percent | % Rec. |
| | Result | Added | Result | Limit | | Accept. |
| Parameter | (mg/L) | (mg/L) | (mg/L) | (mg/L) | Recovery | 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.



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 | | Detection | Regulatory |
|-----------------------|-------------------------|-----------------|-----------------|
| Parameter | Concentration
(mg/L) | Limit
(mg/L) | 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.

Allen L. afleren

Review M. Walter



EPA METHOD 8040 PHENOLS Quality Assurance Report

| Clinate | 04/00 | D | |
|--------------------|---------------|---------------------|----------|
| 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.

Allen L. Oglewe Analyst

Aristini m Waeten
Review



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 **TCLP** Analysis Requested:

| 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 Quesco

Mistin M Wasters
Review



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 L. Career

Mistine of Walters



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:

 ${\bf Method\ 1311,\ Toxicity\ Characteristic\ Leaching\ Procedure,\ SW-846,\ USEPA,\ July\ 1992.}$

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.

Alem L. apeum Analyst

Moting Macters
Review



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 |

| D | Sample
Result | Duplicate
Result | Percent | Det.
Limit |
|---------------------|------------------|---------------------|------------|---------------|
| Parameter | (mg/L) | (mg/L) | Difference | (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.

Allen L. Cyleun Analyst

Mistine my Wasters

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 | Instrument | Method | Detection | | Duplicate | A SACRET OF THE PARTY OF THE PA | Acceptance |
|----------------------|-------------|-------------|----------------|-------|-----------|--|-------------------|
| Conc. (mg/L) Arsenic | Blank
ND | Blank
ND | Limit
0.001 | 0.067 | 0.066 | Diff. 1.5% | Range
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 | | | e Spiked
Sample | | Acceptance |
|----------|-------|-------|--------------------|-------|------------|
| | | | | | |
| 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.

Allee h. Career

/ Misterie my Wasters
Review

CHAIN OF CUSTODY RECORD

| 1/ Project Name | | | Project Location 32 SOS - L'haide | ide River BO | | | | ANALYSIS / PARAMETERS | PARAME | TERS | | | |
|-------------------------------|----------------|----------------|-----------------------------------|--|------------------|--------------------------|--------|-----------------------|--------|---------------------------------------|---------------|------------|------------|
| Her. | H. Brown | | Client No. 95026 | 4 | 10. | siners
45
44 | | | | | Remarks | र् | |
| Sample No./
Identification | Sample
Date | Sample
Time | Lab Number | Sample
Matrix | ON | | ***** | | ···· | | | | |
| 38 Ben
Spalge | 2.14.00 | 8:55 | 0/35 | Sludge | | \ | | | | | | | |
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Kente | | | Date Time R | deceived | Received by: (Signature) | 9 | | | , , , , , , , , , , , , , , , , , , , | Date 7.10 cc. | | Time /0:0/ |
| quished by: (Signature) | (6 | | | 1 | Received | Received by: (Signature) | | | | 7 | | | |
| quished by: (Signature) | (6 | | | L. | Received | Received by: (Signature) | | | | | | | |
| | | | | ENVIROTECH INC | EC | | | | | Sample Receipt | Recei | <u>a</u> | |
| | | | | | | | - 1832 | | | | | z > | A/N |
| | | | | 5796 U.S. Highway 64
Farmington, New Mexico 87401 | Highwa
W Mexi | ty 64
co 87401 | | | Œ | Received Intact | 7 | | |
| | | | | (505) 632-0615 | 32-061 | 5 | | | ပိ | Cool - Ice/Blue Ice | ة
7 | \forall | |

District 1 - (505) 393-6161 P.O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178

Rio Brazos Road

District IV - (505) 827-7131

~...c, NM 87410

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Mexico 87505 Originated 8/8/95

Form C-138

Submit Original Plus I Čopy

(505) 827-7131

to appropriate District Office Env. JN: 92132

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
|--|---|
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Energy Services |
| Verbal Approval Received: Yes ☐ No ☑ | 5. Originating Site SUFC 33.(1 |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Palend |
| 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, TBBN, R 11 W
LA Plata Cate Co |
| 9. Circle One: A. All requests for approval to accept oilfield exempt wastes will be accepted of the confidence of the c | ompanied by a certification of waste from the ompanied by necessary chemical analysis to in of origin. No waste classified hazardous by |
| BRIEF DESCRIPTION OF MATERIAL: Clean up of LGC VIII Stimulabion | APR 2000 RECEIVED OIL CON. DIV DIST. 3 |
| Estimated Volume 502 g Cy Known Volume (to be entered by the open SIGNATURE: Landfarm M. | |
| Waste Management Facility Authorized Agent | EPHONE NO. 505-632-0615 |
| (This space for State Use) | |
| APPROVED BY: Manthan July TITLE: 500 100 | mbe) Geologist DATE: 4/27/00 |

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (506) 334-6170 Fax (505)334-6170

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY
CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: Halliburton Ewargy Samices | 2. Destination Name: |
|--|---|
| 4:09 E: Wain St. | Envirotech Inc. Soil Remediation Remediation Facility |
| | Landfarm #2, Hilltop, New Mexico |
| Farmington, D.M. 87401 | 5796 US Hwy 64, Farmington, NM 87401 |
| 3. Originating Site (name): 33.11 Southwallto FC well #1-3 | Location of the Waste (Street address &/or ULSTR): |
| Southamulta FC well #1-3 | Sec 1, 7334, R116 |
| | Lite Plater Country, Co |
| | (South ann Ute) |
| Attach list of originating sites as appropriate | <u> </u> |
| 4. Source and Description of Waste | 1 |
| Live Break on location | ; clean of stimulation fluid |
| (0.35% LGC VIII) | ; cleanup of Stimulation Fluid |
| <u>'</u> | |
| | |
| | |
| 1. ROBERT SMZTH (Print Name) HALLEBURZON ENERGY SERVELE | representative for: |
| (Print Name) | |
| HALL BURTON ENERGY SERVICE | do hereby certify that, |
| according to the Resource Conservation and Recover | do hereby certify that, ry Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described | waste is: (Check appropriate classification) |
| EVERADE NA LI | |
| | 1PT oilfield waste which is non-hazardous by characteristic |
| analysis or | by product identification |
| and that nothing has been added to the exempt or no | n-exempt non-hazardous waste defined above. |
| | |
| For NON-EXEMPT waste the following documenta | tion is attached (check appropriate items): |
| ★ MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| Chain of Custody | |
| | |
| This waste is in compliance with Regulated Levels of N | Naturally Occurring Radioactive Material (NORM) pursuant |
| to 20 NMAC 3.1 subpart 1403.C and D. | |
| 10 20 Wilha 0.1 300per 7 700.0 dile 0.1 | |
| 0 - 11 - 12 | |
| Name (Original Signature): ROSER 1 SWF7M | |
| THE LICE AND GOOD | |
| Title: MSE ADV 25017 | |
| 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.

Shan King Brown
Fran King Brown
Division Head

Environmental Programs

· SAM 632-1865 Jany Dmoron 320-6495

| HALLIBUR | ION | FRA | ACT | JR | ING | CA | LL | SHE | ET | Date:
Land/Wa | 1/27/00
ter: LAND |
|--|-------------------------------------|--|--|---------------------|-------------------------|---------------------------|--|----------------------|----------------|--|--|
| Quote Number: | : | | Cal | es Orde | -T- | | | KRNu | mher | | |
| Company: | REC | WILLOW | | Leas | e: SO | JTHERN | UTE FO | 33-11 | Well | Number: | |
| Company Rep. | · BOR SAGEI | | | Mot | il 970- | 749_0473 | Pag | er: | | Office: | |
| Contractor: KI | EY | | | Unit | Number: | 6 | _ Unit | Type: | | | |
| Contractor: KI | | | Coun | ty: | <u>L</u> | A PLATA | | er:
Type:
Star | te: | COLOR | |
| Round Trip Mile | eage: | AP | Number: | | * | Ma | | | % | CO2 Presen | !?% |
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| HWY 550 NOR
LOCATION. | | 1-33N-1 | FIGURES SON CONTRACTORS | May a | E - 74 24 34 | inenna | | ERVATION | | | |
| Legal Description Formation Nam | | 1-33N-1 | FRUITLAN | | ervoir Pro | penies: | Da | cker Depth | | t Production: | |
| | | /eight Con | | | Size | From MO | | | | D Max PSI | Comments |
| Casing | | 7.00 | nection G | raue | 5.500 | O O | TD | | 10 10 | 4,250 | Comments |
| Liner | | 7.00 | | - | 3.300 | | | | | 4,200 | |
| Tbg./DP. | | | | | | | | | | | Shots / Ft. |
| Perforations | | | | | 0.450 | 3,344 | 3,42 | 1 | | | 232 HOLES |
| Perforations | | | | | | | | | 4 | | |
| Perforations | | | | | | | 1 | | | | |
| Notes: | | | | | | | | <u> </u> | | | |
| | | | | | | | | · | | | |
| | | | | | Wells | | | | | | |
| Fluid Types | TEA TEA | | otal Volume | Wate | | Ch | omicals | Deviation: | | TVD: | |
| ridia rypes | 1 | Tanks/V | | 17,44.5 | <u> </u> | <u> </u> | C1100010 | BHP: | Sta | tic Temp.: | 125 |
| | | Tanks V | | | | | | | | 2,773 Max F | |
| | 1 | Tanks V | | _ | | | | Fluid BPM | | N2 scfm | N2 % |
| | | Tanks V | | + | | | | N2 VOL | • | | |
| | | | 100 | | Free life | mation | | | | | |
| Job Purpose | | | 1ST ST | AGE- | DELTA S | ANDWE | DGE | | | | |
| Gel System | | Vol | | Gallons | | Acid Syst | tem | 10%FORMIC | | | llons |
| Treatment | | Density] | | Lb/Gal | | Treatmer | nt | | Density] | LP | /Gal |
| Prop. Type | BRADY | | | | | Prop. Typ | | | Size | Lb | |
| Prop. Type | | Size | | Lbs _ | | Prop. Typ | Эe | | Size | Lb | |
| Surfactant | | Gal/Lb | | | /1000 | Surfactar | nt | | Gal/Lb | | /1000 |
| Foamer | Losurf300 | Gal/Lb | 85 | | 1 /1000 | | | 550-21 | Gal/Lb | 2 | 2 /1000 |
| Fluid Loss | | Gal/Lb | | - | /1000 | Fluid Los | s . | | Gal/Lb | | /1000 |
| Gelling Agent | LGC-8 | Gal/Lb | 675 | 5-6.7 | /1000 | Gelling A | gent | | Gal/Lb | | /1000 |
| Breaker Type | GBW-30 | Gal/Lb | 110 | .0-, | /1000 | Breaker | туре | | Gal/Lb | | /1000 |
| Breaker Type | Opti.H.T.E
BC-140 | Gal/Lb | 80 | | 1_/1000
5_/1000 | | | MSA-II | Gal/Lb | 1 | 1 /1000 |
| CrossLinker
Fric.Reducer | | Gal/Lb | 220 | | | Iron Cont | | | Gal/Lb | | /1000 |
| Buffer Type | | Gal/Lb | | | | Buffer Ty | | | Gal/Lb | | /1000 |
| Biocide | | Gal/Lb | | | /1000 | Buffer Ty | me | | Gal/Lb | | /1000 |
| Clay Control | | Gal/Lb | | | /1000 | Clay Con | itrol | | Gal/Lb | | /1000 |
| Sandwedge | LIQ.COAT | Gal/Lb | 600 | .2/\$ | K /1000 | | .,, | | Gal/Lb | | /1000 |
| | WHIT | | Iron | | | fld Tr. | X | Frac Van | | H2O Mnfid | X |
| Pre Gel | C Ann Pi | mp | Mt. Mo | v. —— | | e SG | | Chem | | N2 Pump | |
| HHP fluid 6,0 | Pop O | ff | Ball Inj | | ĻG | C Trk | | Acid Tran | | N2 Pump | |
| Hold Tnk. | Pap O | ff | Balls | | QC | ; | Х | Acid V12 | | N2 Trans. | |
| | | Pr | xedure a | nd/or 1 | hird Par | ty Equip | nent R | equirernen | | | |
| AND AND ASSESSMENT OF THE PROPERTY OF THE PROP | ar nga salas pada Silak Silak Silak | AND THE PERSON NAMED IN COMMENTS OF THE PERSON NAMED IN COMMEN | enggenese en | arac-pays(1828)。 花瓣 | AND THE PERSON NAMED IN | 2000年2007年10月1日 1000年100日 | AND THE PERSON NAMED IN | | | erene errete et | 2000年1月1日 1月1日 1月1日 1月1日 1月1日 1月1日 1月1日 1月1日 |
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| | | | | | | | | | | | |
| Call Taken By: | PAT KEN | PER | Tim | | is i | Credit OK | 7 | Che | ecked By: | TO PERSONAL PROPERTY. | ALTERNATION STATEMENT |
| Discount% N | | % | Service: | | | ols: | ``% | Agreed Pr | | | |
| Ordered By: B | | | | or Calle | | | → ′° | Time F | | 10 | Ψ/C |
| Materials From | | | · · | Crew F | | | | ''''''' | Cauy | <u>v</u> | E/ V |
| Associated PS | | · | | OIEW F | 10111. | | | | | | |
| · HOOD GIRLEU FO | ∟ 3. | | | | | | | | | | |

DEPARTMENT OF TRANSPORTATION (DOT)

FOR PN# 516005670

HAZARD GUIDE 27

PAGE

DATE: 02/11/00

HALLIBURTON SERVICES

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,

HAZARD GUIDE: 27 FOR PN# 516005670

PAGE

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

1

PAGE

LGC-VIII CONCENTRATE - BULK

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

APPLICATION: CONCENTRATE PKG OTY: CARGO TANK

SERVICE USED: STIMULATION

PERCENT TLVPEL

10 MG/M3 GUAR GUM 31-60 % 15 MG/M3 ETHOXYLATED NONYLPHENOL 1-10 % NOT EST NOT EST

31-60 % DIESEL NOT EST NOT EST * * * * * * * * * * * * * SECTION III - PHYSICAL DATA * * * * * * * * * * * * *

PROPERTY MEASUREMENT

APPEARANCE YELLOWISH LIQUID, GEL DIESEL

SPECIFIC GRAVITY (H2O=1) 1.035

BULK DENSITY 8.62 LB/GAL NOT DETERMINED ΡН

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

N/DPOUR POINT 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

ND F / AUTOIGNITION TEMPERATURE ND C

FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/DUPPER

*** 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

PN: 516005670 PAGE 2

CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND INTURIES.

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

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.

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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.

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 * * * * * * * * * * *

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

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

MOVEMENT OF MATERIALS ACCORDING TO FEDERAL REGULATION AS SPECIFIED IN CFR 49, SEC.177.817 AND 176.24

LOCATION: FARMINGTON N.M. FOR EMERGENCY CONTACT: TRUCK# OR TRLR# : NAME: PAT KEMPER TELEPHONE: (505) 324-3500 DRIVER: U.S. DOT HAZMAT REG. NO. - 060399 011 025H * 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.

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7: II - (505) 748-1283 5. First 12. NM 88210 1ct III - (505) 334-6178 Rio Brazzii Rego: 1: NM 87410

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

Submit Origina
Plus I Cop
to appropriate
District Office

ict IV - (505) 827-7131 REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE 1. RCRA Exempt: 4. Generato Compressor System Inc. Non-Exempt: X 5. Originating Site Neba 416 Verbai Approval Received: Yes Management Facility Destination Tierne 6. Transporter Lucero Const. Address of Facility Operator 8. State New Mexico Location of Material (Street Address or ULSTR) Nebu 416 Sec. 29 T3/N R. 7W 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. 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 nazardous by listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned for transport. RIEF DESCRIPTION OF MATERIAL: Contaminated Soil From New Compressor Oil Known Volume (to be entered by the operator at the end of the haul) -TITLE: land tarm Manager DATE: 4-24-00 TELEPHONE NO. 339-This space for State Use) ____ TITLE: Geolog (5/

TITLE Environmulal Godayist -- 4-/27/00

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

GIL GONSERVATION DIVISION AZTRE DISTRICT DEFICE 1005 RIO BELZGE ROAD AZTRE, NEW MEXICO 97410 (805) 334-8178 PRK (805)334-6170

GARY F IOHNSON

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| Generator Name and Address: | 2. Destination Name: |
|--|--|
| COMPRESSOR SYSTEMS INC | Tierra Environmental |
| P.O BOX 2144 | 1101111 |
| FARMINGTON NM 87499 3. Originating Site (name): | Location of the Waste (Street address &/cr ULSTR): |
| - · · | |
| NEBY 416 | See. 29 T. 31N R.7W |
| C & I # 410/07 | |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste | |
| ENGINE OIL WHICH LES | THEO OUT OF A BROKEN HOSE THE CIC RUON FROM CONTAINMENT |
| FRAM DAY TANK WIND | 700 |
| A CONTRACT POSSION BLE | THE CIC AND THOM CONTAINMENT |
| AND GOT ON MINE GROUND. | |
| • | |
| DANIEL RAEL | representative for: |
| (Print Name) | representative for: do hereby certify that, very Act (RCRA) and Environmental Protection Agency's July, |
| COMPRESSOR STITEMS INC | do hereby certify that, |
| iccoroling to the resource Conservation and recov
1988, regulatory determination, the above describe | d waste is: (Check appropriate disselfication) |
| | |
| | EMPT oilfield waste which is non-hazardous by characteristic |
| an alysis | or by product identification |
| ind that nothing has been added to the exempt or r | non-exempt non-hazardous weste defined above. |
| | |
| for NON-EXEMPT wasts the following documen | |
| MSDS Information RCRA Hazardous Waste Analysis | Other (description): |
| Chain of Custody | |
| | |
| White company is in any other than the same of the sam | S BT-4 continue Conti |
| to 20 NMAC 3.1 subport 1403.C and D. | if Naturally Occurring Redicactive Material (NORM) pursuant |
| a a manager manager . | · |
| | |
| Name (Original Signature): | |
| Title: MAINT, SUPERINTENDENT | Additional and Providence among the control of the |
| Date: 4/19/2000 | |
| | ERX NO.: |
| . ST MATO:80 0005 05 JAM P2 | E 1 1 2 E L2K+H |

Material Sefety Data Sheet

Page 1 of T

. CHEMICAL PRODUCT AND COMPANY (DENTIFICATION

CHEVRON Gas Engine Oil HDAX Low Ash MAR 40

PROMNUT NUMBER(S): PRESSEE? PRO WAS WELL

COMPANY IDENTIFICATION

ENERGENCY TELEPHONE NUMBERS

Chevron USA Products Company Environmental, Salety, and Health Room, 2900 575 Market St. Han Francisco, CA 94105-2856 PRODUCT INFORMATION: MSDS Requests: (800) 028-350:

Environmental, Safety, a dealth apport with the state of the

Product Information: (800) 882-3838

E. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 # CHEVRON Gas Engine Oil HDAX Low Ash SAN I

CONTAINING

COMPONENTS

AMOUNT
LIMIT/QTY
AGENCY/TYPE
HYDROTREATED DIST., HVY PARA
Chemical Name: DISTILLATES, HYDROTREATED HEAVY PARAFFINIC
CAS64742647
90.0%
5 mg/m3 (mist) ACGIH TWA
10 mg/m3 (mist) OSHA PEL

ADDITIVES INCLUDING THE FOLLOWING

ZINC ALKARYL DITHIOPHOSPHATE
Chemical Name: ZINC ALKARYL DITHIOPHOSPHATE
CASS4261675 < 1.5%

Revision Number: 5 Revision Date: 01/11/95 MSDS Number: 004210

Revision Na - Not Applicable NA - Not Applicable

Propaged according to the OSHA Hazard Communication Standard (29 CPR 1910.1200) and the ANSI MSDS Standard (2400.1) by the Toxicology and Realth Risk Assessment Unit, CRTC, P.O. Box 4054, Richmond, CA 94864

Page 2 22 T

COMPOSITION COMMENT:

... the components of this material are on the Toxic Substances Control (Newscal) Substances Inventory.

- Proper to the ACGIN definition for mineral til migt. The ACGIM
- rgsmu to the SNA PRO to mag/m3.

Careances imit Veloce TWA Time Weighted Average

TER Short term Exposure dr. . TPO - Threshold Hanning Quantury

Reportable Quantity PER Permissible Exposure Man .
Ceiling Limit TAS Chemical Abstract Service Number

J. E. Appendix A Categories - Change has Been Proposes:

HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYE

This substance is not expected to rause prolonged or significant a irritation.

SKIN:

This substance is not expected to cause prolonged of ligarificant factoritation. The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to interest 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 ordans it swallowed.

INHALATION:

The systemic toxicity of this substance has not been denormined. However it should be practically non-toxic to internal organs !! Inhaled. Prolonged or repeated breathing or petroleum of I made 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:

It swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical

Revision Number: 5 Revision Date: 01/11/95 MSDS Number: 004210 NDA - No Data Available NA - Not Applicable

THEVRON Gas Engine Oil HDAX Low Ash SAE 10

age : or

idvice cannot be obtained, then take one person and product Lontainer to be mearest modical emergency oreatment center or compilate.

INHALATION:

If respiratory "iscomfort or irritation locurs, move the berson to liesh the See of their respiration for the transfer continues.

A CONTRACTOR OF THE PROPERTY O

THE RESERVE OF THE PROPERTY OF

FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: (COC) 410 100 100 100

AUTOIGNITION: NOA

FLAMMABILITY LIMITS of the ordered in the contraction of the contracti

EXTINGUISHING MEDIA:

CO2, Dry Chemica: Foam, water For

NFPA RATINGS: Health 1; Flammabilianv 1; Reactivity ..

FIRE FIGHTING INSTRUCTIONS:

For fires involving this material, do not unter his one page of continuous fire space without proper protective equipment, including so lecontained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carnon dioxide, valor vapor and may are under our sulfar, nitragen and phosphorous.

o. ACCIDENTAL RELEASE MEASURES

CHENTREC 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 to doon an possible. Contain liquid to prevent further contamination of sail, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where featible and appropriate, remove contaminated soil. Follow prescribed procedures are 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:

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NDA - No Data Available NA - Not Applicable

CHEVRON GAS Engine Oil HDAR Low Ash SAE 30

4 pf 7

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

minimizer repeated skin contact with this material. Skin contact cominimizer by aring protective clothing.

RESP.

No spirit repeated skin contact with this material. Skin contact contact contact in the contact con recommended exposure standards, the use of an approved respirator is

Use and riche ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:

Dark amber liquid.

NDA 1Ha

VAPOR PRESSURE:

VAPOR DENSITY

(AIR=1):

BOILING POINT:

FREEZING POINT:

MELTING POINT:

SOLUBILITY:

Soluble in hydrocarbon solvents; insoluble in water.

SPECIFIC GRAVITY: 0.88 @ 15.6/15.60

NA

NA

NΑ

NDA

NA

EVAPORATION RATE: NA

VISCOSITY: II.0 cst @ 1000 (Min.)

PERCENT VOLATILE

(VOL):

ΝA

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:

NDA

A Control of the Control

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

Revision Number: 5 Revision Date: 01/11/95 MSDS Number: 004210

NDA - No Date Available NA - Not Applicable

5 01 ' 3 nge

CHEVRON Gas Engine Oil HDAX Low Ash SAE 30

RYE EFFECTS:

No product toxicology data available. The nazard evaluation was based on data on the components.

SKIN EFFECTS:

No product toxicology data available. The nazard evaluation was mased on lata on the components.

ACUTE ORAL REFECTS:

So product toxicalogy data available The above to lead for was washed on data on the components.

ACUTE INHALATION EFFECTS:

No product toxicology data availance and about the second and a second data on the components.

ADDITIONAL TOXICOLOGY INFORMATION:

and wind constraints are constraints. This product contains petroleum basa processes including severe solvent extraction, severe transcript a severe hydrotreating. None of the other requires a cancer warness. The the OSHA Hazard Communication Standard (29 CFR 1910.1200). Those cl. . have not been listed in the National Toxicology Program (NTP) Annua. Report nor have they been classified by the International Adency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probaban carcinogenic to humans (Group 2A), or possibly carcinogenic so humans (Group 2B).

This product contains zinc alkary: dithiophosphare which is attained to texicity to zinc alkyl dithlophosphate (NDDP). Several (NDDPs) have been reported to have weak mutagenic activity in concurred mammarian calls in only at concentrations that were toxic to the rest delis. 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 or cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cencer 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 in the oil in thoroughly removed by washing with boap and water. See Chevron Materia: 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 chvironmental problems other than those associated with oil spills.

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS:

Oil collection services and collection centers are available for used

Revision Number: 5 Revision Date: 01/11/95 MSDS Number: 004210

NDA - No Data Available NA - Not Applicable CHEVRON Gas Engine Oi RDAX Low Ash SAE 30

Page o of "

notor oil recycling or disposal. Some service stations, automotive service centers, and retailers provide motor oil nollection facilities.

and contaminated materials or containers and dispose of the amanner consistent with applicante regulations. Contact your sales representative to complete the contact of approved disposal or contact methods.

with discussion of the control of th

14. TRANSPORT INFORMATION

The description shown may not apply the happine of all and consult 49CFR, or appropriate Dangerovs woods Regulation. Additional description requirements and income requirements and additional description requirements.

DOT SHIPPING NAME: NOT DESIGNATED AS A BAZARDOUS 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 C. Delayed (Chronic) Health Effects: NO C. Pire Hazard: NO Sudden Release of Pressure Hazard: NO E. Renocivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313 12*TSCA Sect S(a)(3) 23=TSCA Sect G Ul≖NO RTK 12=CERCLA 302.4 02=MASS RTK 03=NTP Carcinogen : 13=MN RTE 04=CA Prop 65-Carcin : 14=ACGIH TWA 24=TSCA Sect 32(b) 25=TSCA Sect 8(a) | 26=TSCA Sect 8(a) | 26=TSCA Sect 8(d) | 06=IARC Group 1 | 36=ACGIH Calc TLV | 27=TSCA Sect 4(a) | 07=IARC Group 2A | 17=OSHA PEC | 28=Canadian MOMETO | 08=IARC Group 2B | 30 DOST | 10 08#IARC Group 28 18=DOT Marine Polistant 29=OSHA CEILING 09=SARA 302/304 19=Chevron TWA 30=Chevron STEL 10-PA RTK 20∞EPA Cardinogen

The following components of this material are round 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,

Revision Number: 5 Revision Date: 01/11/95 MSDS Number: 004210 NDA - No Data Available NA - Not Applicable

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CHEVRON Gas Engine Oil HDAX Low Ash SAE Jie

16. OTHER INFORMATION

AFPA RATINGS: Health 1: Flammsbility 1: Reactivity 0: Least -- Slight 1: Moderate-2: High 3: Extremodal. These values are otalhed using the guidelines of published evaluations prepared by the Rational Fire Protection Association (NIMA) -- go Matingal Maint and Loating Association (tor HMIS rations)

REVISION STATEMENT:

Changes have been made throughout that there was sale when 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.

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Revision Number: 5 Revision Date: 01/11/95 MSDS Number: 004210

NDA ~ No Data Available NA - Not Applicable

bs. NM 88241-1980 rict II - (505) 748-1283 sia, NM 88210 rict III - (505) 334-6178 1 Rio Brazos Road

c. NM 87410

Energy Minerals and Natural Resources Department Oil Conservation Division 2040 South Pacheco Street

Santa Fe, New Mexico 87505 (505) 827-7131

Submit Origina. Plus I Copy to appropriate District Office

Originated 3/8/9]

rict IV - (505) 827-7131 REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE Non-Exempt: 1. RCRA Exempt: 4. Generator 5. Originating Site 51/ms. Verbal Approval Received: Yes No 2. Management Facility Destination 6. Transporter Address of Facility Operator 420 8. State New Mexico 3646,35N 107 28,09W 7. Location of Material (Street Address or ULSTR) (eus 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. 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. **3RIEF DESCRIPTION OF MATERIAL:** Contaminated Soil From Diesel Fuel Tank spill Known Volume (to be entered by the operator at the end of the haul) TELEPHONE NO. - 535 (This space for State Use) TITLE: Geolog 15/

TITLE: Environmental Goday + TATE

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|---|--|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. |
| Four Corners Division | Crouch Mesa Landfarm |
| 5651 US Highway 64 | 420 C.R. 3100 |
| Farmington NM, 84701 | Aztec, NM 87401 |
| 3. Originating Site: (name): | Location of the Waste (Street Address &/or ULSTR): |
| | |
| Key Energy Services, Inc. | 36 46.35N 107 28.09W |
| Sims Mesa Facility | |
| Junction of the 8 mile marker on Hwy. 527 & Rosa Roa | nd, |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | |
| | |
| Fuel spill from Diesel Tank. Hatchway gasket gave way | |
| 3 inches of penetration into the ground. Contaminated | · · · · · · · · · · · · · · · · · · · |
| Environmental Company, Crouch Mesa Landfarm for d | lisposal by a Key Energy employee. |
| | - |
| I, Bob James, representative for Key Energy Service | es. Four Corners Division do hereby certify that. |
| according to the Resource Conservation and Recovery | |
| Agency's July 1988, regulatory determination, the above | re 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- | evernt non hazardous waste defined above |
| and that nothing has been added to the exempt of hori- | exempt non-nazardous waste defined above. |
| For NON-EXEMPT waste only the following documenta | ation is attached (check appropriate items): |
| X MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| Chain of Custody | |
| | |
| $\langle \lambda | |
| Name (Original Signature): |) am |
| · · · · · · · · · · · · · · · · · · · | |
| Title: Farmington Shop Manage | <u></u> |
| Date: April 14, 2000 | |
| 7.pm 14, 2000 | |



Material Safety Data Sheet

| Section 1. Cher | nical Product and Company Identification | | | |
|--------------------------|--|-----------------------------|--|--|
| Trade name | Diesel #2 Oil | Code | 000456 | |
| Supplier | Fina Oil and Chemical Co | MSDS# | P33 | |
| Баррасі | P.O. Box 2159
Dallas, TX 75221 | Validation Date | 3/25/99 | |
| Synonym | Fuel Oil # 2, Furnace Oil #2 | Print Date | 9/13/99 | |
| MSDS Name | Diesel Oil #2 | Responsible for Preparation | Larry Myers | |
| Chemical Family | Hydrocarbon Mixture | | | |
| CAS Registry
Number | 68476-34-6 | | mtrec: (800) 424-9300
A: (800) 322-FINA | |
| Threshold Limit
Value | TWA: 100 (mg/m³) from NIOSH | Technical Port | Arthur: (409) 9 6 2-4421 | |
| Manufacturer | Fina Oil and Chemical Co
P.O. Box 849
Port Arthur, TX 77641-0849 | Information | uiui. (409) 502-442 i | |

| Section 2. Composition and Inform | ation on Ingr | edients | |
|-----------------------------------|---------------|-------------|-----------------------------|
| Name | CAS# | % by Weight | Exposure Limits |
| 1) Diesel Oil #2 | 68476-34-6 | 100 | TWA: 100 (mg/m³) from NIOSH |

| 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. | | |
| Inh alation | 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 s conducted by the American Petroleum Institute and others have shown that similar products boiling by 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of carcinoresponse was weak to moderate with a relatively long latent period. The implications of these rest 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 | Not available. | | |

| 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, CO₂, 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. Accide | ntal 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. Ha | ndling 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. Expos | ure 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. | |
| Resp | iratory Use a MSHA/NIOSH approved respirator or equivalent at high concentrations. |

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 a | and Chemical Properties | | |
|----------------------------------|-------------------------------------|-------------|----------------|
| Physical State and
Appearance | Liquid. | Odor | Kerosine-like |
| Molecular Weight | Not applicable. | Taste | Not available. |
| Molecular Formula | Not applicable. | Color | Straw color. |
| 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 | Not available. | | |
| Ionicity (in Water) | Not available. | | |
| Dispersion Properties | Not available. | | |
| Solubility in Water | Negligible. | | |
| Physical Chemical Comments | s No additional remark, | | |

| 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. | |

| Section 11. Toxicolo | gical 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. Ecologic | cal 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. Dispo | osal 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 reg | gional authorities. |

| DOT Classification | DOT CLASS 3: Flammable liquid. | |
|---|---|--|
| | Flammable liquids n.o.s. | |
| | NA1993 | |
| | Not available. | |
| Marine Pollutant | Not available. | |
| Hazardous Substances Reportab
Quantity | le 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. | |

| - Sectlön 15. Regulate | ory 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

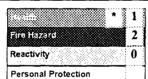
COMBUSTIBLE LIQUID AND VAPOR.

Vapor may cause fire.

MAY CAUSE NERVOUS SYSTEM, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, EYES

DAMAGE.

Hazardous Material Information System (U.S.A.)



1 National Fire
2 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.

Cherntrec: (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.

ct II - (505) 748-1283 First a. NM 88210 ct III - (505) 334-6178 Rio Brazos Road NM 87410

<u>ct IV</u> - (505) 827-7131

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

RECEIVED

Submit Origin Plus 1 Cor to appropria District Offic

JUL 17 2000

Environmental Bureau
Oil Conservation Division

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
|---|--|
| RCRA Exempt: Non-Exempt: | 4. Generator Key Energy Services |
| Verbal Approval Received: Yes 🗍 No 🄀 | 5. Originating Site Enrost Well Site |
| Management Facility Destination Tierra Land farm | 6. Transporter |
| Address of Facility Operator #410 CR 3100 A211C NM | 8. State |
| Location of Material (Street Address or ULSTR) Enervest Wall Site | La Plata County (O Sch O Town 34N |
| Circle One: | Ras. 9 W |
| A. All requests for approval to accept oilfield exempt wastes will be acceded Generator; one certificate per job. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. | impanied by necessary chemical analysis to n of origin. No waste classified nazardous by |
| All transporters must certify the wastes delivered are only those consigned | for transport. |
| Dirt Contaminated Whydraulic Oil | |
| imated Volume — ~ 10 cy Known Volume (to be entered by the ope | rator at the end of the haul) ———————————————————————————————————— |
| SNATURE: TITLE: Environment Waste Manage Pent Facility Authorized Agent PE OR PRINT NAME: Teveny J, Bath TELE | Specialist DATE: 7/12/00 EPHONE NO. 334-4894 |
| TITLE: Geolog Martyn J. Environn | mh/ Gadesist 7-17-00 |

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|--|--|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. |
| Four Corners Division | Crouch Mesa Landfarm |
| 5651 US Highway 64 | 420 C.R. 3100 |
| Farmington NM, 84701 | Aztec, NM 87401 |
| i annington ram, 04701 | 72.00, 1417 07 40 1 |
| 3. Originating Site: (name): Enervest Well Site | Location of the Waste (Street Address &/or ULSTR): |
| Enervest Well Site | Section 9 |
| West Animas #9-1 | Township 34N |
| LaPlata County, Colorado | Range 9W |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | |
| Dirt was contaminated with hydraulic oil when a hose ru | intured on a well service rig. Approximately 20-25 |
| gallons of oil was spilled onto the ground. Crews remove | |
| possible. The remaining dirt is to be sampled, tested, d | |
| facility located near Farmington, NM | ag up and handportou to an itimo ob regulated |
| | |
| I, Bob James, representative for Key Energy Service according to the Resource Conservation and Recovery Agency's July 1988, regulatory determination, the above (Check appropriate classification) | Act (RECA) and Environmental Protection |
| EXEMPT oilfield wasteX | 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 documenta | ition is attached (check appropriate items): |
| MSDS Information | X Other (description): |
| RCRA Hazardous Waste Analysis | Test Results from Inter-Mountain |
| Chain of Custody | Laboratories, Inc. |
| | |
| | |
| () Chil | U & Jan |
| Name (Original Signature): | |
| Title: Farmington Shop Manager | |
| TitleTalumigton onep Managet | |
| 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



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

June 27, 2000

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

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 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.



Inter-Mountain Laboratories, Inc.

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

On Site Technologies Limited

Project: Metals

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

Lab ID:

Client:

0300W02448

Matrix:

Soil

Condition: Intact 2506 West Main Street, Farmington, NM 87401

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 | .75 | | | |
| Arsenic
Cadmium
Chromium
Lead | 15 -
1.0
8
19 ,15 | 6
0.5
1
5 | 100
20
100
100 | mg/Kg
mg/Kg
mg/Kg
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:

CHAIN-OF-CUSTODY RECORD

On Site Technologies, LTD.

Farmington, NM 87401 612 E. Murtay Drive

(505) 325-2432

Subcontractor:

Inter-Mountain Laboratories

2506 W Main

Farmington, NM 87401

Acct #:

(505) 326-4737

TEL: FAX:

16-Jun-00

Requested Tests

SW6010B

Bottle Type

Collection Date

Matrix

Sample ID

40ZG

6/15/2000

Soil

0006041-01A

Viscosia A Viscosia

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

Comments:

Date/Time

L/16/20 1620 Received by:

Relinquished by: Holol Rever

Relinquished by:

Date/Time

Received by:

AECORD Date: (15 0)

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| <u>ک</u> | gton; NM
127-1496 |
| 5 | . • Farmin
X: (505) 3 |
| 5 | • P.O. Box 2606 • Farmington; NM
) 325-5667 • FAX: (505) 327-1496 |
| Z | E. Murray Dr. • P.O. Box 2606 • Farmington; NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496 |
| Z L | E. Murray Dr.
LAB: (505) |

ON SITE TECHNOLOGIES, LTD.

| Purchase | Purchase Order No.: 6/0 | Project No. / 19 30 6130 9 | 154 10 | 10019 | | Name | 000 | Action of the second of the se | | Title | Garage D | J. Marie | • | |
|------------------|-------------------------|----------------------------|-----------|-------|--|--------------|--------------------------------|--|--------------------|--------|---------------|-----------|----------|------------|
| 3 | Name Rob James | | | | TA(| Company | any / | 1.00 | Secure Secure | 7 3 | | | | |
| O
NCI
ND | Sompany | | Dept. | | | | Mailing Address | 30.6 | er Sou | | | | | |
| SEI
SEI | Address // O. / | | | | | Щ. | City, State, Zip | المرافئ مريدون | 1. 1 | 7, | | | | |
| ۷I | City, State, Zip | 86.64.K | X. | | | | Telephone No.(こい) | 105 Sec. | 11697 | | Telefax No. 🏒 | C364-1010 | 3 | |
| PROJECT | ATION: | | | | 1 | 6 | | 4 | ANALYSIS REQUESTED | . REQL | ESTED | | | |
| 6 110.00.00 | Lies hard from gil | | | | | | 1 | | | | | / | | |
| SAMPLE | | Con. | | , | dmuk | ietnoC | qu ? 1 | | | | | | <u>-</u> | |
| | SAMPLE IDENTIFICATION | 12.00 | ĮΣΓ | 2 | <u> </u> | _ | | | | \ | \ | LAB ID | | |
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| Relinquis | Relinquished by: | | Date/Time | me | Rec | Received by: | | | | | Da | Date/Time | | |
| Method o | Method of Shipment; | , no. | | | Rush | <u>Х</u> | 24-48 Hours | | 10 Working Days | Days | By Date | 0 | | |
| Authoriz | Authorized by: | Date Date | 79 | 500 | Spe | cial Instruc | Special Instructions / Remarks | marks: | 11. | | . · | | | |
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To Re-order Call 325-9000 or Fax 325-9764 Bipitatirephiles FORM # 01

District I - (505) 393-6161 ? O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 II S. First Artesia, NM 88210

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
RECEIVED

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

APR 0 3 2000

Submit Original Plus 1 Copy to appropriate District Office

Form C-138

Originated 8/8/95

Environmental Bureau
Oil Conservation Division

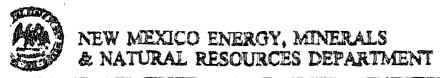
Trict III - (505) 334-6178
Rio Brazos Road
C, NM 87410
District IV - (505) 827-7131

| REQUEST FOR APPROVAL TO ACCEPT | 00000 | | | | |
|--|---|--|--|--|--|
| 1. RCRA Exempt: Non-Exempt: X | 4. Generator Inc. | | | | |
| Verbal Approval Received 3-27-0 Yes X No 🔲 | 5. Originating Site Nebu 412 | | | | |
| 2. Management Facility Destination Tierra land Farm | 6. Transporter Inland Trucking | | | | |
| 3. Address of Facility Operator #420 CR 3100 Astec | 8. State New Mexico | | | | |
| 7. Location of Material (Street Address or ULSTR) Nebu 4/2 | See, N297, 31N R, 7W | | | | |
| 9. <u>Circle One</u> : CSI# 4/-0/53 | | | | | |
| 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. 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 | d for transport. | | | | |
| Estimated Volume cy Known Volume (to be entered by the open | erator at the end of the haul) 7 7 7 7 7 7 7 7 7 7 7 7 7 | | | | |
| Waste Management a chity And on Zed Agent | EPHONE NO | | | | |
| (This space for State Use) | 2015 7 2/2/100 | | | | |

. FROM :

FAX NO. :

Mar. 27 2880 85:84PM P2



OIL COMERRYATION DIVISION ARTEC DISTRICT OPPICA 1000 RID BRAZUS ROAD ARTEC, NEW MEXICO 47440 1400) 884-8175 Fax (808)354-8175

GARY E. JOHNSON

Jennifér A. Salisbury Cabinet Secretary

CERTIFICATE OF WASTE STATUS



Material Safety Data Sheet

1 of 7 Page

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHEVRON HDAX MG Screw Compressor Oil

PRODUCT NUMBER(S): CPS255204 CPS255205 SYNONYM: CHEVRON HDAX NG Screw Compressor Oil 180 150

CHEVRON HDAX NG Screw Compressor Oil ISO 68

COMPANY IDENTIFICATION

EMERGENCY TELEPHONE NUMBERS

Chevron Products Company Global Lubricants 555 Market St. Room B03 San Francisco, CA 94105-2870 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 LIKIT/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

Revision Number: 0

Revision Date: 10/25/97 MSDS Number: 006852

CHEVRON HDAX NG Screw Compressor Oil

Page 2 of 7

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

EYB:

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.

Incestion:

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.

INGESTICN:

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

Revision Number: 0 Revision Date: 10/25/97 MSDS Number: 006852

X +DOSO21 (01-69)

CHEVRON HDAR NG Screw Compressor Oil

combustible.

FLAMMABLE PROPERTIES:

FLASH POINT: (COC) 419-446F (215-230C) Min.

AUTOIGNITION: NDA

FLAMMABILITY LIMITS (% by volume in mir): Lower: NA Upper: MA

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 dickide 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)827-3887 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, wald, braze, solder, drill, grind, or expose such containers to heat, flame, spanks, 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 spleshing is

Revision Number: 0 Revision Date: 10/25/97 MSDS Number: 006852

CHEVRON HOLY MG Screw Compressor Oil

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 sirborne 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: MIDA

VAPOR PRESSURE: NA

VAPOR DEMSITY

(AIR=1): NA BOILING POINT: NDA FREEZING POINT: NDA

MELTING POINT: NA

SOLUBILITY: Soluble in hydrocarbon solvents; insoluble in water.

SPECIFIC GRAVITY: NDA NDA EVAPORATION RATE: NA

VISCOSITY: 61.2 - 135 cst @ 40c (Min.)

PERCENT VOLATILE

(VOL): NA

10. STABILITY AND REACTIVITY

MAIARDOUS 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

Ravision Number: 0 Revision Date: 10/25/97

MSDS Number: 006852

CHEVRON HDAR MG Screw Compressor Oil

EYR EFFECTS:

The eye irritation hazard is based on data for a similar material.

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 IMHALATION SFFECTS:

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

Revision Number: 0 Revision Date: 10/25/97 MEDS Number: 006852

15. REGULATORY INFORMATION

| SARA 31 | CATEGORIES: | ı. | Immediata | (Acute) | Health | Effects: | NO |
|---------|-------------|----|-----------|---------|--------|----------|----|
| | | | | | | | |

2. Delayed (Chronic) Health Effects: NO

3. Fire Hazard: NO

4. Sudden Release of Pressure Hazard: NO

5. Reactivity Hazard: NC

REGULATORY LISTS SEARCHED:

| 11∞NJ RTK | 22=TSCA Sect 5(a)(2) |
|-------------------------|---|
| 12=CERCLA 302.4 | 23=TSCA Sect 6 |
| 13=MN RTK | 24=TSCA Sect 12(b) |
| 14=ACGIH TWA | 25=TSCA Sect 8(a) |
| 15=ACGIH STEL | 26=TSCA Sect 8(d) |
| 16=ACGIH Calc TLV | 27=TSCA Sect 4(a) |
| 17-osha pel | 28-canadian WHMIS |
| 18-DOT Marine Pollutant | 29=OSHA CEILING |
| 19=Chevron TWA | 30-Chevron STEL |
| 20-EFA Carcinogen | |
| | 12=CERCLA 302.4 13=MN RTK 14=ACGIH TWA 15=ACGIH STEL 16=ACGIH Calc TLV 17=OSHA PEL 18=DOT Marine Pollutant 19=Chevron TWA |

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

WHNIS 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 Safaty Data Sheet

Ravision Number: 0 Revision Date: 10/25/97 MSDS Number: 006852

CHEYRON HDAK NG Screw Compressor Oil

7 of 7 Page

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

CAS - Chemical Abstract Service Number

- Ceiling Limit C

() - Change Has Been Proposed

Al-5 - Appendix A Categories 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

Revision Number: 0

Revision Date: 10/25/97

MSDS Number: 006852

District I - (505) 393-6161 P. O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210

P'-trict III - (505) 334-6178

District IY - (505) 827-7131

7 Rio Brazos Road

c, NM 87410 مند

New Mexico
Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street Santa Fe, New Mexico 87505 (505) 827-7131 APR 1 7 2000

Submit Original Plus 1 Copy to appropriate District Office

Form C-138

Originated 8/8/95

Environmental Bureau
Oil Conservation Division

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 Comp. Station |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Essuinotech |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Den West co |
| 7. Location of Material (Street Address or ULSTR) | "E" Soull TZ9N, RQW SJC NIM |
| 9. <u>Circle One</u> : | |
| A. All requests for approval to accept oilfield exempt wastes will be accept near accept; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accept near /li> | ompanied by necessary chemical analysis to
n of origin. No waste classified hazardous by |
| Clean up of over flow of oily u TCLP Attacked | sastevater tout. |
| Estimated Volume 20 cy Known Volume (to be entered by the operation) | erator at the end of the haul) ———————————————————————————————————— |
| SIGNATURE: Landfarm M. Waste Management FacilityAuthorized Agent TYPE OR PRINT NAME: Harlan M. Brown TEL | DATE: 4.12.00 EPHONE NO. 505-632-0615 |
| APPROVED BY: Martine J'Mish - TITLE: Environe | DATE: 4/13/2000 |

CERTIFICATE OF WASTE STATUS

| Generator Name and Address: | 2. Destination Name: | | | |
|--|---|--|--|--|
| El Paso Field Services Co. | Envirotech Soil Remediation Facility | | | |
| 614 Reilly Avenue | Landfarm #2 | | | |
| Farmington, NM 87401 | Hilltop, New Mexico | | | |
| 3. Originating Site (name): | Location of Waste(Street address &/or ULSTR): | | | |
| Manzanares Compressor Station | E-16-29N-9W. San Juan Co., NM | | | |
| Attach list of originating sites as appropriate 4. Source and Description of Waste Overflow of oily wastewater tank | | | | |
| Overnow of only wastewater talk | | | | |
| I, David Bays | representative for: | | | |
| (Print Name) | | | | |
| El Paso Field Services according to the Resource Conservation and Reco 1988 regulatory determination, the above describe | overy Act (RCRA) and Environmental Protection Agency's July, | | | |
| | ON-EXEMPT oilfield waste which is non-hazardous by aracteristic 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 documents | mentation is attached (check appropriate items): | | | |
| MSDS Information Other (description) X RCRA Hazardous Waste Analysis Chain of Custody | | | | |
| Name (Original Signature): | d Ban | | | |
| Title: Principal E | Environmental Scientist | | | |
| Date: April 5, 20 | 00 | | | |

District I - (505) 393-6161 P. O. Box 1940 Hobbs, NM 88241-1980

<u>District II</u> - (505) 748-1283 811 S. First Artesia, NM 88210

District III - (505) 334-6178 1000 Rio Brazos Road Aztec, NM 87410

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

| District IV | - (505) 827 | 7-7131 | | | | | | | | |
|--|-------------------------------|-----------------------------------|---------------------------------|----------------------|------------------|----------|----------------------|---------------------------------------|--------------------|--|
| | | | R | elease Not | ification a | nd C | orrective | e Action | | |
| | | | | | OPER. | ATO | R | ⊠ Initial | Report | ☐ Final Repo |
| Name
El Paso Field | l Services C | o | | | | | Bays | | | |
| Address | ve Farmino | ton, NM 87401 | | | | 1 . | hone No.
599-2256 | | | |
| Facility Nam | e | | | | | Facili | ty Type | | | |
| Manzanares (| Compressor | Station | | | | Natur | al Gas Compr | essor Station | | |
| Surface Own
BLM | er | | | Mineral Own | er | | | Lease No. | | |
| | | | | LOC | CATION C |)FR | ELEASE | 1 | | |
| Unit Letter
E | Section
16 | Township
29N | Range
9W | Feet from the | North/South | | Feet from t | | County
San Juan | |
| | | | | NA | TURE OI | F RE | LEASE | | | |
| Type of Relea | | wash down wat | er | | | | | Volume released 20 bbls. | | Volume Recovered |
| Source of Rel | lease | rflowed onto gro | | | | | | Date and Hour of Occ
4/3/00 8:00AM | urrence | Date and Hour of
Discovery
4/3/00 8:00AM |
| Was Immedia | ate Notice G | ive? 🗷 Yes | 3 | □ No | ☐ Not | Require | :d | If YES, To Whom?
NMOCD – Denny For | ıst | |
| By Whom?
David Bays | | | | | | | | Date and Hour
4/3/00 9:00AM | | |
| Was a Water | course Reac | hed? | ; | ¥ No | | | | If YES, Volume Impa | cting Waterco | ourse. |
| Describe Cau | se of Proble | m and Remedial | l Action Take | | falling onto the | compre | ssor skids. In | the future the tank will | be pumped o | ut more often |
| during period | of heavy ra | in. | - | | | | | | - FF | |
| The oily wast stockpiled for | ewater drair
off site disp | oosal after waste | ly 300 feet ac
characterizat | ion results are re | ceived. | l area o | ff site. The la | ndowner was contacted | , the soil was | excavated and |
| | | ons Prevailing (mp from recent r | | Precipitation, etc | c.)* | | | | | |
| I hereby certif
my knowledg
Signature: | | | is true and co | Par | of | | | | SERVATION | N DIVISION |
| Printed Name
David Bays | : | | | | | | | Approved by District Supervisor: | | |
| Title:
Principal Env | ironmental S | Scientist | | | | | | Approval Date: | F | Expiration Date: |
| Date: 3/5/00 | | | | one:
05) 599-2256 | | | | Conditions of Approva | l: A | Attached: |

^{*}Attach Additional Sheets If Necessary



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



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 |

| : | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| : | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 L. Ogener



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



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 |

| | Concentration | Det.
Limit | Regulatory
Limit |
|---------------------|---------------|---------------|---------------------|
| Parameter | (mg/L) | (mg/L) | (mg/L) |
| Pyridine | ND | 0.020 | 5.0 |
| Hexachioroethane | 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.

Deen L. Quera

Pristing Walter



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

Review



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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

A transfer of the control of the con

| 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 |

| | Concentration | Detection
Limit | Regulatory
Limits |
|----------------------|---------------|--------------------|----------------------|
| Parameter | (mg/L) | (mg/L) | (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 Acce | ptance 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. | | • | |
| | , , | Volatile Organics, SW-846, USEPA, S | • | |
| Note: | Regulatory Limits based | d on 40 CFR part 261 Subpart C sectio | n 261.24, July 1, 1992. | |
| Comments: | QA/QC for sample | H015. | | |

Den L. Quena Analyst



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 |

| | _ | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 Acce | ptance Criteria | Parameter | Percent Recovery |
|------------|-------------------------|---------------------------------------|--------------------------|
| | | Trifluorotoluene | 99% |
| | | Bromofluorobenzene | 98% |
| eferences: | Method 1311, Toxicity 0 | Characteristic Leaching Procedure, SV | V-846, USEPA, July 1992. |
| | Method 5030, Purge-an | d-Trap, SW-846, USEPA, July 1992. | |
| | Method 8010, Halogena | ated Volatile Organic, SW-846, USEPA | A, Sept. 1994. |
| | Method 8020 Aromatic | Volatile Organics, SW-846, USEPA, S | Sent 1994 |

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

Comments: QA/QC for sample H015.

Alen L. Open Christin m Walter Review



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 |

| •
• | | Duplicate | | |
|----------------------|--------|-----------|-----------|------------|
| : | Sample | Sample | Detection | |
| 1 | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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.

Review



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

The state of the s

Client: QA/QC N/A Project #: Sample ID: 04-10-00 Matrix Spike Date Reported: 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

| | | | Spiked | | | SW-846 |
|----------------------|--------|--------|--------|--------|----------|---------|
| | Sample | Spike | Sample | Det. | | % Rec. |
| | Result | Added | Result | Limit | Percent | Accept. |
| Parameter | (mg/L) | (mg/L) | (mg/L) | (mg/L) | Recovery | 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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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 | | Detection | Regulatory |
|-----------------------|-------------------------|-----------------|-----------------|
| Parameter | Concentration
(mg/L) | Limit
(mg/L) | 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.

Allen L. aferen



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



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.

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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.

 ${\sf Method~8090,\,Nitroaromatics~and~Cyclic~Ketones,\,SW-846,\,USEPA,\,Sept.~1986.}$

Note:

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

Comments:

QA/QC for sample H015.

Allen L. Ofern

Misteri m Jaeta Review



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.

| OAIOC Assentance Criteria | Davamatar | Doroont Boogyony |
|---------------------------|-----------|------------------|
| 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

Mustin m Walter
Review



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.

Den P. Oferen

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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 | Instrument | Method | Detection | Sample | Duplicate | % | Acceptance |
|-------------------|------------|--------|-----------|--------|-----------|-------|------------|
| Conc. (mg/L) | Blank | Blank | Limit | | | Diff. | Range |
| Arsenic | ND | ИD | 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 | ПD | 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 | Spike | Sample | | | Acceptance |
|--------------|-------|--------|--------|----------|------------|
| Conc. (mg/L) | Added | | Sample | Recovery | 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

Review

CHAIN OF CUSTODY RECORD

| Client / Project Name EP FS | | Project Location | Ect Location | state on | ANALYSIS / PARAMETERS | AMETERS | | |
|--|----------------|------------------|-----------------------------|--|-----------------------|---------------------|----------------|----------|
| Sampler: HARLAN H. BROWN | 7 | Client No. | 7-25 | to .c
anenia:
A); | | | Remarks | |
| Sample No./ Sample Identification Date | Sample
Time | Lab Number | Sample
Matrix | noO | | | | |
| lube Oil Upsat offosia | 4:20 | 4012 | Soil | 7 | | | | |
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| Account of the second | | | | | | | | |
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| | | | | | | | | |
| | | | | | | | | |
| Relinquished by: (Signature) | \land | 0 | Date Time I | Received by: (Signature) | (The same | | Date 4 | Time (S) |
| Relinquished by: (Signature) | | | | Received by: (Signature) | | | | : |
| Relinquished by: (Signature) | | | | Received by: (Signature) | | | | |
| | | | TONIPOT | NIPOTECH IOC | | Sample | Sample Receipt | |
| | | . · | | | | | > | Z
Z |
| | | | 5796 U.S.
Farmington, Ne | 5796 U.S. Highway 64
Farmington, New Mexico 87401 | | Received Intact | 7 | _ |
| | | | (202) | (505) 632-0615 | | Cool - Ice/Blue Ice | 1 | |
| | | | | | | | | |

District I - (505) 393-6161 P. O. Box 1986 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pirtict III - (505) 334-6178 Rio Brazos Road

District IV - (505) 827-7131

A.J.C. NM 87410

SIGNATURE:

TYPE OR PRINT NAME

Waste Management FacilityAuthorized Agent
Harlan M. Brown

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

DATE: 03 .27.00

505-632-0615

Env. JN: 92132-07

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
|--|--|
| 1. RCRA Exempt: Non-Exempt: Ok to Hold For Approx | 4. Generator Edeogy Sorvices |
| Verbal Approval Received: Yes 🔲 No 🔀 | 5. Originating Site Hair Yard |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Environteals |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Now Hoper co |
| 7. Location of Material (Street Address or ULSTR) | 4109 E. Main
Farmington, DM 87401 |
| 9. <u>Circle One</u> : | |
| PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | d for transport. |
| Gran gom product pretivates to go water our passement and in 2 nd co | esedas a refult of vould.
I due to contact w/ 5torn |

| (This space for State Use) | |
|---|---------------|
| Leaves tout GeologIST | 7/20/27 |
| APPROVED BY: Demy 1c Jemy TITLE: 0-63/09/3/ | DATE: 3/28/00 |
| | (/, |
| APPROVED BY: Logal Mills Royal Mills | 2/2/00 |
| APPROVED BY: Nogar (Luck - IIILE: Justin (Muf | DATE: 3/31/00 |

TITLE: Landfarm Manager

TELEPHONE NO.

OIL CONSERVATION DIVISION AZTEC DISTRICT OFFICE 1000 RIO BRAZOS ROAD AZTEC, NEW MEXICO 87410 (508) 334-6178 Fax (505)334-6170

GARY E. JOHNSON GOVERNOR

JENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

| . • | |
|--|--|
| 1. Generator Name and Address: HALLZBURTON ENERGY SERVICES 4109 E MAIN ST. FARMINGTON N. M. 87410 | 2. Destination Name: Envirotech Inc. Soil Remediation Remediation Facility Landfarm #2, Hilltop, New Mexico |
| 3. Originating Site (name): | Location of the Waste (Street address &/or ULSTR): |
| MHZNST. FACELETY | • |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste VANDZIZSM LGC-8 TANK 4. | gelling agent, 1997 3/28/00 |
| | |
| | |
| I, ROBERT SMITH (Print Name) | representative for: |
| 1988, regulatory determination, the above describe EXEMPT oilfield waste NON-E | do hereby certify that, overy Act (RCRA) and Environmental Protection Agency's July, ped waste is: (Check appropriate classification) XEMPT oilfield waste which is non-hazardous by characteristic is or by product identification |
| and that nothing has been added to the exempt or | r non-exempt non-hazardous waste defined above. |
| For NON-EXEMPT waste the following docume MSDS Information RCRA Hazardous Waste Analysis Chain of Custody | Other (description): |
| This waste is in compliance with Regulated Levels to 20 NMAC 3.1 subpart 1403.C and D. | of Naturally Occurring Radioactive Material (NORM) pursuant |
| Name (Original Signature): ROBERT SMZ | 74 |
| Title: HES ADVISOR | |
| Date: 3-24-00 | |

LGC-VIII CONCENTRATE - BULK

PAGE 1

DATE: 03-23-00

REVISED DATE 04-07-99

MATERIAL SAFETY DATA SHEET HALLIBURTON ENERGY SERVICES

DUNCAN, OKLAHOMA 73536

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

CHEMICAL CODE: LGC-VIII CONCENTRATE - BULK PART NUMBER: 516005670

PKG QTY: CARGO TANK APPLICATION: CONCENTRATE

SERVICE USED: STIMULATION

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

PERCENT TLV PEL

GUAR GUM 4000 16. 31-60 % 10 MG/M3 15 MG/M3 ETHOXYLATED NONYLPHENOL 1-10 응 NOT EST NOT EST

DIESEL (080 and the second of NOT EST

PROPERTY MEASUREMENT

APPEARANCE YELLOWISH LIQUID, GEL

ODOR DIESEL

1.035 SPECIFIC GRAVITY (H2O=1)

BULK DENSITY 8.62 LB/GAL 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/D300 F / 148 C BOILING POINT (760 MMHG)

N/DPOUR POINT 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:

FLAMMABILITY 2 HEALTH 1 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

PN: 516005670 PAGE 2

CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND INJURIES.

INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND NITROGEN OXIDES.

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

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.

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

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

SKIN:

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 * * * * * * * * * * * * *

PN: 516005670 PAGE

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 EOUIPMENT):

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.

3

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

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

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

District I - (505) 393-6161 P. O. Box 1980 Hobbs, NM 88241-1980 Discrict II - (505) 748-1283 811 S. First Artesia, NM 88210 m-wict III - (505) 334-6178 Rio Brazos Road

~~c, NM 87410

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 I Copy to appropriate District Office

Env. JN:

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE |
|---|--|
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Thillips Potrological |
| Verbal Approval Received: Yes No 🔼 | 5. Originating Site Si was Many |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter Benella |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Num Horoi'co |
| 7. Location of Material (Street Address or ULSTR) | "G" Sec 33 T30N RGW |
| 9. Circle One: | Rio Heriba Condy, NM |
| B. All requests for approval to accept non-exempt wastes must be accept PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned and provided in the provi | on of origin. No waste classified hazardous by |
| Cleanup of dissel leaks at a fue (MSDS). | MAR 2000 RECEIVED CHOOL DIST 3 |

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|---|--|
| Key Energy Services, Inc. | Envirotech Inc. |
| Four Corners Division | Soil Remediation Remediation Facility |
| 5651 US Highway 64 | Landfarm #2, Hilltop, New Mexico |
| Farmington NM, 84701 | 5796 US Hwy. 64, Farmington, NM 87401 |
| | l |
| 3. Originating Site: (name): | Location of the Waste (Street Address &/or ULSTR): |
| Key Energy Service | · · |
| Sim Mesa Yard, | |
| New Mexico | 36 46.35N 107 28.09W |
| | |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | and A tools that was been also Dhillias Dataslasses |
| Contaminated dirt from a diesel fuel spill inside of our y was stored in Key's yard for a couple of days. Key provi | |
| was stored in Key's yard for a couple of days. Key provi | ided supervision on the clean up by Envirotech. |
| | |
| | |
| | |
| I, Bob James, representative for Key Energy Service | es, Four Corners Division do hereby certify that. |
| according to the Resource Conservation and Recovery | |
| Agency's July 1988, regulatory determination, the above | e 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. |
| | by endiagrams analysis of 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 documenta | ation is attached (check appropriate items): |
| X MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | outlet (description). |
| Chain of Custody | |
| | |
| | |
| 1 Schutch | |
| Name (Original Signature): | 1 Jan |
| | |
| Title: Farmington Shop Manager | |
| | |
| Date: March 13, 2000 | · · · · · · · · · · · · · · · · · · · |



March 14, 2000

Key Energy Services
Attn: Bob James
P.O. Box 900
Farmington, New Mexico 87499

505-327-4935

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.

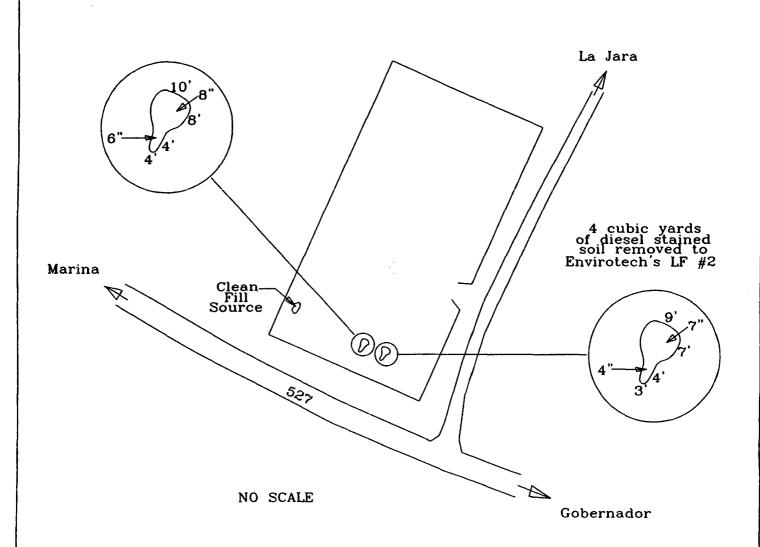
If you have questions or comments regarding this cleanup please feel free to contact us at 505-632-0615.

Sincerely,

Envirotech Inc.

Sam Ray Jr.

Construction Superinténtdent



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
Medical Emergency

CHEMTREC 1-800-424-9300

1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components Material

CAS Number

9

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

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

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.

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) TLV (ACGIH) None Established None Established

(Continued)

GASC0220

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

Solubility in Water Insoluble Odor Aromatic Form Liquid *

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

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

3.₃ ...

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 liqu

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.

REGULATORY INFORMATION

U.S. Federal Regulations

OSHA HAZARD DÉTERMINATION

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 : Yes Chronic : Yes Fire 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) Reportable Quantity Petroleum Hydrocarbons 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

REGULATORY INFORMATION(Continued)

Pennsylvania Worker and Community Right to Know Hazardous Substances List.

Ingredient Category

Diesel Fuel Oil 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

2

2 0

OTHER INFORMATION

HFPA, NPCA-HMIS

NFPA Rating Health Flammability Reactivity NPCA-HMIS Rating Health Flammability Reactivity

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

Address

MSDS Administrator

Conoco Inc. PO Box 2197

Houston, TX 77252 713/293-5550

Telephone

Indicates updated section.

End of MSDS

<u>District I</u> - (505) 393-6161 ? O. Box 1980 Tobbs, NM 88241-1980 District II (505) 748-1283 111 S. First

New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division

2040 South Pacheco Street (505) 827-7131

Form C-138 Originated 3/8/95

> Submit Original Plus I Copy to appropriate District Office

Irtesia, NM 88210 ** trict III - (505) 334-6178 Santa Fe, New Mexico 87505 7 Rio Brazos Road ...c, NM 87410 <u>)istrict TV</u> - (505) 827-7131

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE 00022 |
|---|---|
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Key Everge Seauce |
| Verbal Approval Received: Yes No No | 5. Originating Site Laceo Road |
| 2. Management Facility Destination Tierra land Farm | 6. Transporter Key Everger |
| 3. Address of Facility Operator 420 CR 3/00 Aztec | 8. State New Mexico |
| 7. Location of Material (Street Address or ULSTR) Lago Road | Sec 187 T.29N R. 9W |
| 9. Circle One: | 17 |
| A. All requests for approval to accept oilfield exempt wastes will be accepted. Generator; one certificate per job. All requests for approval to accept non-exempt wastes must be accepted. PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to on of origin. No waste classified hazardous by |
| BRIEF DESCRIPTION OF MATERIAL: | u ioi tiansport. |
| Contaminated Soil From Diesel Fuel spi | MAR 2000 MECEIVED OIL CON. DIV DIST. 3 |
| Estimated Volume cy Known Volume (to be entered by the op- | erator at the end of the haul) sy |
| SIGNATURE: Down Bradle TITLE: Low Face Waste Management Facility Authorized Agent TYPE OR PRINT NAME: David Bonawitz TEL | n Manager DATE: 3-17-08 EPHONE NO. 334-8894 |
| APPROVED BY: Log Club TITLE: Geold TITLE: Buen | chuf === 3/23/00 |

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|--|--|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. |
| Four Corners Division | Crouch Mesa Landfarm |
| 5651 US Highway 64 | 420 C.R. 3100 |
| Farmington NM, 84701 | Aztec, NM 87401 |
| | |
| 3. Originating Site: (name): | Location of the Waste (Street Address &/or ULSTR) |
| Key Energy Services, Inc. | 1987 |
| Unit 2519 Transport | T29N R9W SER 187 17 13 3/21/00 |
| Largo Road, San Juan, NM | |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | |
| | nent from one location to the next, a valve vibrated l, stopped and shoveled up the contaminated dirt. g in storage containers. |
| I, Bob James , representative for Key Energy Ser according to the Resource Conservation and Recov Agency's July 1988, regulatory determination, the a (Check appropriate classification) | |
| EXEMPT oilfield wasteX | 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 r | non-exempt non-hazardous waste defined above. |
| To NON EVENDT weeks only the following do suga | eminima in attached (ale ale accessible it access |
| For NON-EXEMPT waste only the following docum | · · · · · · · · · · · · · · · · · · · |
| X MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| Chain of Custody | \ |
| | ame |
| Name (Original Signature). | Cune |
| Title: Farmington Shop Mana | ager |
| | 2000 |
| Date: March 15, 2 | 2000 |



Material Safety Data Sheet

| Trade name | Disast #8 Off | G. 4. | 777450 |
|--|--|---|---|
| T I have verybe | Diesel #2 Oil | Code | 000456 |
| Supplier Fina Oil and Chemical Co P.O. Box 2159 Dalles, TX 75221 | MSDS# | P33 | |
| | Validation Date | 3/25/99 | |
| Зупопута | Fuel Oil # 2, Furnace Oil #2 | Print Date | 9/13/99 |
| MSD\$ Name | Diesel Oil #2 | Responsible for Preparation | Larry Myers |
| Chemical Family | Hydrocarbon Midure | | التوريخ و المساور و |
| CAS Registry
Number | 68476-34-8 | _ · · · · · · · · · · · · · · · · · · · | emtrec: (800) 424-9300
A: (800) 322-FINA |
| Threshold Limit
Value | TWA: 100 (mg/m²) from NIQSH | Technical Por | : Arthur: (409) 962-4421 |
| Manufacturer | Fina Oil and Chemical Co
P.O. Box 849
Port Arthur, TX 77641-0849 | Inferration | · |

| Section 2. Composition and Inform | ation on Ingr | edients | |
|-----------------------------------|---------------|-------------|-----------------------------|
| Name | CAS# | % by Weight | Exposure Limits |
| 1) Diesei Gil #2 | 68478-34-6 | 100 | TWA: 100 (mg/m²) from NIOSH |

| 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 Actuse Health Effocu | | | |
| Eyes | Hazardous in case of eye contact (irritant). | | |
| Skin | Sensitization of the product: Not available. Very hazardous in case of skin contact (irritant). Non-correlive for skin. Skin inflammation is characterized by Itching, scaling, reddening, or, occasionally, bilistering. | | |
| Ink alotion | Intoxication, dizzinoss, drowsiness, headache and nausea, weakness and fatigue. Burning sensation in chest, possible eaphydation and unconsciousness. | | |
| Ingestion | Local imitation, burning sensation in mouth, esophagus, and stornach. Vomiting, betching, and diarrhea with blood-tinged feces. Drowsiness. The greatest hazard of ingestion is applicated PULMONARY ASPIRATION, which can cause potentially fatal CHEMICAL PNEUMONITIS and NONCARGIOGENIC PULMONARY EDEMA. | | |
| Potential Chronic Heath
Effects | Signs and symptoms of chronic exposure are similar to those of acute exposure. Skin: dermatitis. CARCINOGENIC EFFECTS: 3 (Not classifiable for human.) by HARC. 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) Laurally 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. | | |

Diesel #2 Cil

Page: 2/5

| Section 4. First Aid Measures | | |
|-------------------------------|---|--|
| Eye Contact | Check for and remove any contact lenses. Flush with planty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. DO NOT use an eye ointment. Seek medical attention. | |
| Skin Contuct | After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abresive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emoillent. If irritation persists, seek medical attention. Wash contaminated cicthing before reusing. | |
| Initalation | Allow the viotim to reat 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). | |

| Hummabibty of the Product | Combustible. | |
|---|---|--|
| Auto-ignition Temperature | >204°C (399 2°F) | |
| Flash Poists | CLOSED CUP: 54.4°C (130°F). (Pensky-Martens.). | |
| Flaunmable Limits | LOWER: 0.4% UPPER. 6% | |
| Products of Combustion | carbon oxides (CO, CO2) suifur oxides (SO2, SO3) | |
| Fire Hazards in Presence of
Various Substances | Flammable in presence of open flames and sparks, of neat. | |
| 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 products risks of explosion in the presence of various materials. | |
| Fire Fighting Media
and Instructions
Protective Clothing (Fire) | SMALL FIRE: Use DRY chemical powder, CO _t , and haton. LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet. | |
| | 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 white burning. | |
| Special Rengarks on
Explosion Hazards | May form explosive mutures with air. Container may explode in fire. Flashback along vapor trail may occur May explode if Ignifed in an enclosed area. | |

| Section 6. Accides | ntal 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. |
| Lurge Spill and Lesk | 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. Ha | indling and Storage |
|---------------|--|
| Handling | Do not breatne 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 ventilision 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 | | |
| | Eyer Safety glasses. Splash goggles. | |
| | Burdy Flame retardant clothing covering the entire body. | |
| Ruspin | | |
| | Use a MSHA/NIOSH approved respirator or equivalent at high concentrations. | |

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Hands Chemical resistant gloves if contact is possible.

Fac 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) Diesei Cil #2

TWA: 100 (mp/m²)

TWA: 100 (mg/m²) from NIOSH

Consult local authorities for acceptable exposure limits.

| Section 9. Physical and Chemical Properties | | | |
|---|-------------------------------------|-------|--|
| Physical State and
Appearance | Liquid. | Odor | Kerosine-like |
| Molecular Weight | Not applicable. | Taste | Not available. |
| Molecular Formula | Not applicable. | Color | Straw color. |
| pří (1% Soln/Water) | Not applicable. | | |
| Balling/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) | | |
| Vupor Pressure | 1.5 mm of Hg (@ 20°C) | | |
| Vapor Density | 8 (Air = 1) | | The second secon |
| Volstility | 100% (V/v). | | |
| Odor Threshold | Not avaitable. | | |
| Evaporation Rate | 600 X slower compared to Ethylether | | |
| VOC | 100 (%) | | |
| Vlacosity | Not available | | |
| LogK | Not available. | | *************************************** |
| Ionicity (in Water) | Not evailable. | | |
| Dispersion Properties | Not available. | | |
| Solubility in Water | Negligible. | | |
| Physical Chemical Commence | No edditional remark, | | |

| Section 10. Stability and Reactivity | | |
|--|--|--|
| Stability and Rescrivity | 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. | |

Page: 4/5

| Texicity to Animais | 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 the similar products boiling between 175-370 C (350-700 F) usually produce skin tumora 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 Tuzicity to Animals | Prolonged or repeated inhalation of highly concentrated petroleum distaltates caused liver tumors in mice an kidney damage and tumors in male rats. Skin paint with distillates (boiling range 190-700 F) applie repeatedly and never washed off can cause skin cancer. Chronic exposure to unfiltered diesel exhaus produced tumors in lungs and lymphomas in mice and rats. | |
| Special Remarks on Chronic
Effects on Humans | NIOSH recommends that whole clesel exhaust be regarded as a potential carcinogen. | |
| Special Remarks on Other
Toxic Effects on Humans | No additional remark. | |

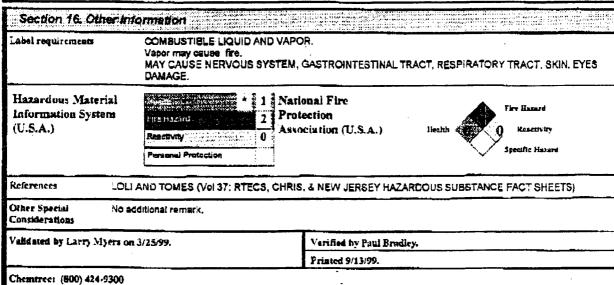
| Section:12 Ecologic | al Information |
|--|---|
| Ecotoxicity | Aquatic toxicity: 2990 ppm/24 hr (korosene). Does not bloconcentrate in the food chain (kerosene). |
| BODS and COD | 53%, 5 days (kerosene) |
| Biodegradable/OECD | Not available. |
| Mability | Not available. |
| | Possibly nazardous 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. Dispo | PSAI 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 reg | Sonal authorities. |

| DOT Classification | DOT CLASS 3: Flammable liquid. | - 🔷 |
|--|---|-----|
| · | Flammable liquids n.o.s. | |
| | NA1993 | |
| | Not available. | |
| Marine Pollutant | Not available. | |
| Homerious 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 Ilquid A. | |
| IMO/IMDG Classification | IMDG CLASS 3.1: Flammable liquid (Low flash point). | |
| ICAO/IATA Classification | IATA CLASS 3: Flammable riquid. | |

Page: 5/5

| Section 15. Regulatory information | | | |
|------------------------------------|--|--|--|
| IICS Classification | HCS CLASS; Combustible liquid having a flash point between 37.8°C (100°F) and 93.3°C (200°F). | | |
| U.S. Federul Regulations | TSCA inventory: Diesel Oil #2 | | |
| | SARA 313 taxe 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: Diesei Oil #2 | | |
| EINECS | Not available. | | |
| DSCL (EEC) | R36/38- Imitating to eyes and skin. | | |
| International Lists | No products were found. | | |
| State Regulations | Pennsylvania RTK. Diesel Oil #2 | | |
| | California prop. 85: 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. | | |



Notice to Reader

FINA: (800) 322-FINA

To the dest of our Brondedge, the information contained herein is accurate. However, neither the above names supplies not any of as substitutive intermet any including whatsoever for the accuracy or completeness of the information contained herein. Final accumulation of substitution of any material is the sale responsibility of the user. All memerials may present unknown hat or the sale responsibility of the user. All memerials may present unknown hat or the sale responsibility of the user. All memerials may present unknown hat or the sale responsibility of the user. All memerials may present unknown hat or controlled herein.

<u>District I</u> - (505) 393-6161 1 O. Box 1980 dobbs, NM 88241-1980 <u>District II</u> - (505) 748-1283 111 S. First

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe. New Mexico 87505

Form C-138 Originated 8/8/95

> Submit Original Plus I Copy to appropriate District Office

| rtesia, NM 88210 ** trict III - (505) 334-6178 ** Rio Brazos Road **_cc, NM 87410 **District IV - (505) 827-7131 | 2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131 |
|--|---|
| | |

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE OCO23 | | | |
|--|---|--|--|--|
| 1. RCRA Exempt: Non-Exempt: | 4. Generator Key Energy | | | |
| Verbal Approval Received: Yes 🔲 No 🛄 | 5. Originating Site Kec Yard | | | |
| 2. Management Facility Destination Tierra landtarm | 6. Transporter Kec Evergy | | | |
| 3. Address of Facility Operator 420 CR 3100 Aztec | 8. State New Mexico | | | |
| 7. Location of Material (Street Address or ULSTR) Key Energy Gard | 5651 HWL64 Farminator | | | |
| 9. Circle One: | "," | | | |
| A. All requests for approval to accept oilfield exempt wastes will be acco
Generator; one certificate per job. All requests for approval to accept non-exempt wastes must be acco
PROVE the material is not-hazardous and the Generator's certification
listing or testing will be approved. | mpanied by necessary chemical analysis to | | | |
| All transporters must certify the wastes delivered are only those consigned | for transport. | | | |
| BRIEF DESCRIPTION OF MATERIAL: | | | | |
| Contaminated Soil From diesel Fuel spill Estimated Volume cy Known Volume (to be entered by the operator at the end of the haul) cy SIGNATURE: Day Bendling TITLE: Landa Manager DATE: TYPE OR PRINT NAME: Day Bray Bray TELEPHONE NO. 3-20-00 | | | | |
| The second secon | LI HORE HO. | | | |
| (This space for State Use) APPROVED BY: Deny D. Tout TITLE: Geolog | DATE: 3/2000 | | | |

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|---|---|
| Key Energy Services, Inc. | Tierra Environmental Company, Inc. |
| Four Corners Division | Crouch Mesa Landfarm |
| 5651 US Highway 64 | 420 C.R. 3100 |
| Farmington NM, 84701 | Aztec, NM 87401 |
| | |
| 3. Originating Site: (name): | Location of the Waste (Street Address &/or ULSTR) |
| Key Energy Services, Inc. | Key Energy Services, Inc. |
| Farmington Facility | 5651 US Highway 64 |
| 5651 US Highway 64 | Farmington NM, 84701 |
| Farmington NM, 84701 | |
| (Attach list of origination sites as appropriate) | |
| 4. Source and Description of Waste | |
| | |
| Contaminated dirt from diesel spill from trucks. | |
| | |
| | |
| | |
| I, Bob James, representative for Key Energy Service according to the Resource Conservation and Recovery Agency's July 1988, regulatory determination, the abov (Check appropriate classification) | Act (RECA) and Environmental Protection |
| 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 EVENDT waste only the following decuments | ation is attached (chack appropriate items): |
| For NON-EXEMPT waste only the following documents | |
| MSDS Information | Other (description): |
| RCRA Hazardous Waste Analysis | |
| Chain of Custody | _ |
| Name (Original Signature): | Jam |
| Title: Farmington Shop Manager | |
| | |
| Date: March 18, 2000 | 0 |



Material Safety Data Sheet

| Section 1. Chen | nical Product and Company Identification | | |
|--------------------------|--|-----------------------------|--|
| Trade name | Diesel #2 Oil | Code | 000456 |
| Supplier | Fina Oil and Chemical Co
P.O. Box 2159
Dallas, TX 75221 | MSDS# | P33 |
| | | Validation Date | 3/25/99 |
| Synonym | Fuel Oil # 2, Furnace Oil #2 | Print Date | 9/13/99 |
| MSDS Name | Diesel Oil #2 | Responsible for Preparation | Larry Myers |
| Chemical Family | Hydrocarbon Mixture | | |
| CAS Registry
Number | 68476-34-6 | I. | emtrec: (800) 424-9300
IA: (800) 322-FINA |
| Threshold Limit
Value | TWA: 100 (mg/m³) from NIOSH | Technical Por | t Arthur: (409) 962-4421 |
| Manufacturer | Fina Oil and Chemical Co
P.O. Box 849
Port Arthur, TX 77641-0849 | Intermation | |

| 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. | | | |
| Inh alation | 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 paints conducted by the American Petroleum Institute and others have shown that similar products boiling 175-370 C (350-700 F) usually produce skin tumors and/or cancer in mice. The degree of caresponse was weak to moderate with a relatively long latent period. The implications of these 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
See Toxicological Information | Not available. (section 11) | | | |

| 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, CO₂, 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. Accide | ntal 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. Ha | ndling 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. |

| 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. | | |
| | dy Flame retardant clothing covering the entire body. | | |
| Respiratory Use a MSHA/NIOSH approved respirator or equivalent at high concentrations. | | | |

uiesei #Z Oil

Page: 3/5

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/m²) from NIOSH

Consult local authorities for acceptable exposure limits.

| Section 9. Physical and Chemical Properties | | | | |
|--|-------------------------------------|-------|----------------|--|
| Physical State and
Appearance | Liquid. | Odor | Kerosine-like | |
| Molecular Weight | Not applicable. | Taste | Not available. | |
| Molecular Formula | Not applicable. | Color | Straw color. | |
| 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 | Not available. | | | |
| Ionicity (in Water) | Not available. | | | |
| Dispersion Properties | Not available. | | | |
| Solubility in Water | Negligible. | | | |
| Physical Chemical Comments No additional remark. | | | | |
| | | | | |

| 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. | |

| 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. Ecologic | al 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. Dispo | sal Considerations | |
|---------------------------|------------------------------------|---|
| Waste Information | Recover free liquid. Tregulations. | ransfer to an approved disposal area in accordance with federal, state, and local |
| Waste Stream | Not available. | |
| Consult your local or reg | ional authorities. | |

| Section 14. Transpo | rt Information | |
|---|---|--|
| DOT Classification | DOT CLASS 3: Flammable liquid. | |
| | Flammable liquids n.o.s. | |
| | NA1993 | |
| | Not available. | |
| Marine Pollutant | Not available. | |
| Hazardous Substances Reportab
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. Regulate | ory 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

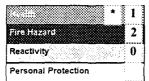
COMBUSTIBLE LIQUID AND VAPOR.

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

No additional remark.

Considerations

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 P'-trict III - (505) 334-6178 Rio Brazos Road c, NM 87410 مدر

District IV - (505) 827-7131

New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 2040 South Pacheco Street

MAR 1 6 2000

RECEIVED

Environmental Bureau

Submit Original Plus 1 Copy to appropriate District Office

Form C-138

Originated 8/8/95

Santa Fe, New Mexico 87505 (505) 827-7131

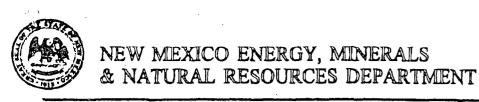
Oil Conservation Division

Env. JN: 92132.02

| DECLIECT FOR | ADDDOMAL | TO ACCEPT | COLIDIAMATE |
|--------------|----------|-----------|--------------|
| REQUEST FOR | APPHOVAL | IU AUGEPT | SULIU WAS IE |

| REQUEST FOR APPROVAL TO ACCE | EPT SOLID WASTE |
|--|--|
| 1. RCRA Exempt: Non-Exempt: | 4. Generator (Louisburger |
| Verbal Approval Received: Yes ☑ No ☐ | 5. Originating Site Truck |
| 2. Management Facility Destination Envirotech Soil Remedi | 6. Transporter Environted |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Numblewico |
| 7. Location of Material (Street Address or ULSTR) | MWAW Sac 25, T27N, R5W |
| 9. Circle One: | Ris devriba country eld |
| A. All requests for approval to accept oilfield exempt wastes will be Generator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be PROVE the material is not-hazardous and the Generator's certific listing or testing will be approved. All transporters must certify the wastes delivered are only those consi | accompanied by necessary chemical analysis to cation of origin. No waste classified hazardous by |
| BRIEF DESCRIPTION OF MATERIAL: | |
| Cleanup of AOF. 2 spilled @ Track a Ridge above Cerrizo Was | MAR 2000 RECEIVED OIL CON. DIV. DIST. 3 |
| Estimated Volume 36 cy Known Volume (to be entered by the | e operator at the end of the hauf) ———————————————————————————————————— |
| SIGNATURE: Waste Management FacilityAuthorized Agent TYPE OR PRINT NAME: Harlan M. Brown | TELEPHONE NO. 505-632-0615 |
| (This space for State Use) | |
| APPROVED BY: TITLE: | DATE: |
| APPROVED BY: Marling of Kings TITLE: Suvi | vannuntal Geologist DATE: 3-17-00 |





GARY E. JOHNSON GOVERNOR

1. Generator Name and Address:

IENNIFER A. SALISBURY CABINET SECRETARY

CERTIFICATE OF WASTE STATUS

2. Destination Name:

| HALLIBURTON ENERGY SONDICKS | Envirotech Inc. |
|--|--|
| 4109 E. Hain St. | Soil Remediation Remediation Facility |
| Framington, AM 87401 | Landfarm #2, Hilltop, New Mexico |
| 3. Originating Site (name): | 5796 US Hwy 64, Farmington, NM 87401
Location of the Waste (Street address &/or ULSTR): |
| WIND SECZS, TZTH RSW | |
| 3. Originating Site (name): NWNW Sec25, TZ7N R5W R10 Arriba Cowly, NW. | |
| | |
| Attach list of originating sites as appropriate | |
| 4. Source and Description of Waste | |
| Cleaning of AQF. 2 3P | illud @ Truck decident |
| . • | |
| | |
| | |
| | |
| | |
| 1. ROBERT SMZ14 (Print Name) HALLTBURZON FENERGY SERVICE | representative for: |
| (Print Name) | |
| HALITRICESON FENTERLY SERVICE | do hereby certify that, y Act (RCRA) and Environmental Protection Agency's July, |
| 1988, regulatory determination, the above described | |
| | |
| EXEMPT oilfield wasteNON-EXEN | IPT oilfield waste which is non-hazardous by characteristic by product identification |
| / analysis or | by product identification |
| and that nothing has been added to the exempt or no | n-exempt non-hazardous waste defined above. |
| | |
| For NON-EXEMPT waste the following documenta | |
| MSDS Information RCRA Hazardous Waste Analysis | Other (description): |
| Chain of Custody | |
| Chair of Custody | |
| | |
| | laturally Occurring Radioactive Material (NORM) pursuant |
| to 20 NMAC 3.1 subpart 1403.C and D. | |
| | |
| Name (Original Signature): ROBERT Sm774 | 1 |
| , | |
| Title: ASE ADVISOR | |
| | |
| Date: <u>03-10-7.eoo</u> | |
| | |



Danner Foust Und bal 10,7.99

AQF-2 FOAMING AGENT - HAL-TANK

PAGE

DATE: 07-22-98

MATERIAL SAFETY DATA SHEET 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

CHEMICAL CODE: AQF-2 FOAMING AGENT - HAL-TANK PART NUMBER: 51600519

PKG OTY: 330 GALLON TANK APPLICATION: FOAMING AGENT

SERVICE USED: STIMULATION

PERCENT

ETHYLENE GLYCOL MONOBUTYL ETHER

11-30 % 25 PPM S 25 PPM S

CLEAR LIGHT YELLOW LIQUID

PROPERTY

APPEARANCE

MEASUREMENT

 ${
m TLV}$

BLAND SPECIFIC GRAVITY (H2O=1) 1.038 BULK DENSITY LB/GAL 8.65 6.5-8.5 FOR 10% SOL. PH 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

NFPA(704) RATING:

FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE HEALTH 1

142 F / 61 C FLASH MTHD PMCC FLASH POINT

AUTOIGNITION TEMPERATURE ND ND

LOWER FLAMMABLE LIMITS (% BY VOLUME) N/DUPPER 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.

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.

TNHALATION .

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.

MOTTAJAHMI

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.

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.

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.

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

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 IN LIQUID > 100 MG/L, SOLID > 10000 MG/KG NOT EVALUATED BARIUM : 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 IN LIQUID > 5 MG/L, SOLID > 1000 MG/KG NOT EVALUATED LEAD: IN LIQUID > 0.2 MG/L, SOLID > 2000 MG/KG NOT EVALUATED MERCURY: IN LIQUID > 1 MG/L, SOLID > 100 MG/KG NOT EVALUATED SELENIUM: IN LIQUID > 5 MG/L, SOLID > 500 MG/KG
IN LIQUID > 15 MG/L, SOLID > 500 MG/KG NOT EVALUATED SILVER: ANTIMONY: NOT EVALUATED BERYLLIUM: IN LIQUID > 0.75 MG/L, SOLID > 75 MG/KG NOT EVALUATED IN LIQUID > 80 MG/L, SOLID > 8000 MG/KG NOT EVALUATED COBALT: 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

IN LIQUID > 20 MG/L, SOLID > 2000 MG/KG NOT EVALUATED NICKEL: IN LIQUID > 7 MG/L, SOLID > 700 MG/KG NOT EVALUATED IN LIQUID > 24 MG/L, SOLID > 2400 MG/KG NOT EVALUATED THALLIUM: VANADIUM: IN LIQUID > 250 MG/L, SOLID > 5000 MG/KG NOT EVALUATED ZINC: IN LIQUID > 250 MG/L, SOLID > 250 MG/KG NOT EVALUATED IN LIQUID > 500 MG/L, SOLID > 500 MG/KG NOT EVALUATED CYANIDE: H2S: ORGANO-TIN: IN LIQUID OR SOLID > 100 MG/L NOT EVALUATED SOLID > 100 MG/L NOT EVALUATED ORGANO-PHOS: IN LIQUID OR SOLID > 100 MG/L NOT EVALUATED IN LIQUID OR 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

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 FRO VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT I 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 EXPRESSL PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

District I - (505) 393-6161 P. O. Box 1980 Hobbs, NM 88241-1980 District II - (505) 748-1283 811 S. First Artesia, NM 88210 Pi-trict III - (505) 334-6178 7 Rio Brazos Road c, NM 87410 مدر District IV - (505) 827-7131

New Mexico Energy Minerals and Natural Resources Departmental Property Natural Resources Department Natural Resour Oil Conservation Division

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

MAR 0 3 2000

Submit Original Plus 1 Copy to appropriate District Office

Form C-138

Originated 8/8/95

Environmental Bureau Oil Conservation Division Env. J N :

| REQUEST FOR APPROVAL TO ACCEPT | SOLID WASTE | | |
|--|--|--|--|
| 1. RCRA Exempt: Non-Exempt: Z. Z. OO 2:10 P.M. | 4. Generator いたら | | |
| Verbal Approval Received: Yes 🔀 No 🔲 | 5. Originating Site Repoller | | |
| 2. Management Facility Destination Envirotech Soil Remedia. Facility Landfarm #2 | 6. Transporter S _{<a< sub=""> →</a<>} | | |
| 3. Address of Facility Operator 5796 US Highway 64 Farmington, NM 87401 | 8. State Now Hopico | | |
| 7. Location of Material (Street Address or ULSTR) | Sec 26, TBON, RQW. | | |
| 9. Circle One: | | | |
| A. All requests for approval to accept oilfield exempt wastes will be accordenerator; one certificate per job. B. All requests for approval to accept non-exempt wastes must be accorded PROVE the material is not-hazardous and the Generator's certification listing or testing will be approved. All transporters must certify the wastes delivered are only those consigned. | ompanied by necessary chemical analysis to n of origin. No waste classified hazardous by | | |
| BRIEF DESCRIPTION OF MATERIAL: | | | |
| Reboilor sludge removed to repair | reboiler element | | |
| Estimated Volume £ 20 lbl cy Known Volume (to be entered by the ope | FEB 2000 OIL CON DIV DIST. S | | |
| SIGNATURE: Harlan M. Brown TITLE: Landfarm Manager DATE: 02.29.00 TYPE OR PRINT NAME: Harlan M. Brown TELEPHONE NO. 505-632-0615 | | | |
| APPROVED BY: Montano Male TITLE: En Uson | DATE: 3/01/2000 | | |

CERTIFICATE OF WASTE STATUS

| 1. Generator Name and Address: | 2. Destination Name: |
|--|---|
| WILLIAMS FIELD SERVICES CO | Envirotech Inc. |
| 295 CHIPETA WAY | 5796 U.S Hur 64 |
| SALT LAKE CITY, UT 84168 | FARMINGTON, NM. 87401 |
| 3. Originating Sits (name): | Location of the Waste (Street address &/er ULSTR); |
| HORSE Conyon Reclaimer | |
| Sec 26 7301 69W | |
| Attach fier of originating sites as appropriate | |
| 4. Source and Description of Waste | |
| REBOILER SLUDGE | • |
| | |
| | · |
| | t viet. |
| | |
| 1. BAI BEEVERS | representative for: |
| | |
| (Print Name) | Section 1 |
| Williams | do hereby certify that, |
| Williams | ary Act (RCRA) and Environmental Protection Agency's July, |
| according to the Resource Conservation and Recover 1968, regulatory determination, the above described EXEMPT cilfield waste NON-EXE analysis of | ery Act (RCRA) and Environmental Protection Agency's July, i waste is: (Check apprepriate electrication) MPT pliffield waste which is non-hazardous by cheracteristic or by product identification |
| according to the Resource Conservation and Recover 1988, regulatory determination, the above described EXEMPT cilfield wests Williams | ery Act (RCRA) and Environmental Protection Agency's July, i waste is: (Check apprepriate electrication) MPT pliffield waste which is non-hazardous by cheracteristic or by product identification |
| according to the Resource Conservation and Recover 1968, regulatory determination, the above described EXEMPT cilfield waste NON-EXE analysis of | ary Act (RCRA) and Environmental Protection Agency's July, waste is: (Check apprepriate electrication) MPT oilfield waste which is non-hazardous by characteristic or by product identification on-exampt non-hazardous waste defined above. |
| according to the Resource Conservation and Recovered 1988, regulatory determination, the above described EXEMPT cilfield waste NOM-EXE analysis and that nothing has been added to the exempt or nothing has been added to the exempt of the exe | ary Act (RCRA) and Environmental Protection Agency's July, waste is: (Check apprepriate electrication) MPT diffield waste which is non-hazardous by cherectaristic or by product identification on-exampt non-hazardous waste defined above. mentation is attached (check appropriate items): Other (description): |
| according to the Resource Conservation and Recovered 1988, regulatory determination, the above described EXEMPT cilfield waste NOM-EXE analysis of and that nothing has been added to the exempt or nothing ha | ary Act (RCRA) and Environmental Protection Agency's July, waste is: (Check apprepriate electrication) MPT diffield waste which is non-hazardous by cherectaristic or by product identification on-exampt non-hazardous waste defined above. mentation is attached (check appropriate items): Other (description): |
| according to the Resource Conservation and Recovered 1988, regulatory determination, the above described EXEMPT cilfield waste NOM-EXE analysis and that nothing has been added to the exempt or nothing has been added to the exempt of the exe | ary Act (RCRA) and Environmental Protection Agency's July, waste is: (Check apprepriate electrication) MPT diffield waste which is non-hazardous by cherectaristic or by product identification on-exampt non-hazardous waste defined above. mentation is attached (check appropriate items): Other (description): |



Process Equipment & Service Company, Inc.

5680 U.S. HIGHWAY 64 • 87401 / P.O. 8OX 929 • 87499
FARMINGTON, NEW MEXICO
PHONE: (505) 327-2222 • FAX: (505) 327-7550

NORM SURVEY DATA SHEET

| Facility / location: WILLAMS HORSE CANYON S | 1.1E Date: 2-23-2600 |
|---|----------------------|
| Meter Model: DOSIMETER 3007A Serial No: 9 | 9808-238 |
| Detector Model: DOSIMETER 3012 Serial No: 2 | 201-887-7100 |
| Calibration Date: 4-5-99 | |
| Battery Check: (大) | |
| Background Radiation Level: 0.03 mR/hr | No. |
| Description of material surveyed: WASTE Sludge FOR EU 24 PIPE FROM REBOILER | • |
| Item / Material | |
| Waste Material:approx. gals Equipment: Manufacturer: | mR/hr: 0-06 |
| Serial No: | |
| Description: | |
| Job No: | |
| Comments: | |
| Survey Conducted by: GARY W How E (Print Name) Say W Have (Signature) | |

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



EAA 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 |
| | | Det. | Regulatory |
| | Concentration | Limit | Level |
| Parameter | (mg/L) | (mg/L) | (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



SUSPECTED HAZARDOUS **WASTE ANALYSIS**

Client: Project #: 705004 Williams Field Service Sample ID: Waste Water Date Reported: 02-26-99 Date Sampled: 02-22-99 Lab ID#: E696 02-22-99 Date Received: Sample Matrix: Water Date Analyzed: 02-23-99 Preservative: Cool Cool and Intact Chain of Custody: 6615 Condition:

Parameter Result

IGNITABILITY: Negative

CORROSIVITY: pH = 6.87Negative

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)

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

Comments: Horse Canyon.

tacy W Sendler



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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 |
|---------------------------|-----------|------------------|
| | | |
| | me 161 | 000/ |

Trifluorotoluene Bromofluorobenzene 98% 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 L. afewer





| Client: | Williams field Service | Project #: | 705004 |
|--------------------|------------------------|---------------------|----------|
| Sample ID: | Waste Water | Date Reported: | 03-01-99 |
| • | | • | 02-22-99 |
| Laboratory Number: | E696 | Date Sampled: | |
| 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 |

| | Concentration | Detection
Limit | Regulatory
Limit |
|-----------------------|---------------|--------------------|---------------------|
| Parameter | (mg/L) | (mg/L) | (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



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 |

| | | Det. | Regulatory |
|---------------------|---------------|--------|------------|
| | Concentration | Limit | Limit |
| Parameter | (mg/L) | (mg/L) | (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.

| OA/OC Assentance Criteria | Doromotor | Percent Recovery |
|---------------------------|-----------|-------------------|
| QA/QC Acceptance Criteria | Parameter | reicelli 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.

Deu L. Gener

Review Jenden



QUALITY ASSURANCE / QUALITY CONTROL DOCUMENTATION



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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.

Abeur L. Gjewen



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 |

| | | Detection | Regulatory |
|----------------------|---------------|-----------|------------|
| | Concentration | Limit | Limits |
| Parameter | (mg/L) | (mg/L) | (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.

Ahleurh. Queucu



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 |

| Duplicate | | | | |
|----------------------|--------|--------|-----------|------------|
| | Sample | Sample | Detection | ¥#. |
| | Result | Result | Limits | Percent |
| Parameter | (mg/L) | (mg/L) | (mg/L) | 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.

Review



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

Client: Sample ID: QA/QC

Project #:

N/A

Matrix Spike

Date Reported:

03-01-99

Laboratory Number:

E695

Date Sampled: N/A

Sample Matrix: Analysis Requested: TCLP Extract **TCLP**

Date Received: Date Analyzed:

N/A 02-26-99

Condition:

N/A

Date Extracted:

N/A

| y magazinen kalandaria araba (m. 1945 - 1945) da 1945 - 19 | *************************************** | | Spiked | | | SW-846 |
|--|---|--------|--------|--------|----------|---------|
| | Sample | Spike | Sample | Det. | | % Rec. |
| | Result | Added | Result | Limit | Percent | Accept. |
| Parameter | (mg/L) | (mg/L) | (mg/L) | (mg/L) | Recovery | 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.



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 | | Detection | Regulatory |
|-----------------------|-------------------------|-----------------|-----------------|
| Parameter | Concentration
(mg/L) | Limit
(mg/L) | 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

May W. Jende-



EPA METHOD 8040 PHENOLS Quality Assurance Report

| | i i | | |
|--------------------|-----------------|---------------------|----------|
| 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 |

| | Zonoontrotion | Det.
Limit | Regulatory
Limit |
|-----------------------|----------------------|---------------|---------------------|
| Parameter | Concentration (mg/L) | (mg/L) | (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



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 Queen



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.

| OA/OC Assentance Criteria | Daramatar | Darroant Bassyans |
|---------------------------|-----------|-------------------|
| 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.

Allen R. Glence

May W. Jenden



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 |

| | Concentration | Det.
Limit | Regulatory
Limit |
|---------------------|---------------|---------------|---------------------|
| Parameter | (mg/L) | (mg/L) | (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

May W. Sende



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 Reguested: | TCLP |

| | Sample | Duplicate | | Det. |
|---------------------|--------|-----------|------------|--------|
| | Result | Result | Percent | Limit |
| Parameter | (mg/L) | (mg/L) | Difference | (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.

| OA/OC Assentance Criteria | Davamatas | Maximum Difference |
|---------------------------|-----------|--------------------|
| 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.

Dew L. Queen



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
Acded | Sample | Spiked
Sample | \$ 44 £ 830 CS 64 600 1 CS 2 1 18 9 1 46 8 2 14 CS 3 13 1 CS 83 1 18 10 10 10 | Acceptance |
|-----------------------|----------------|--------|------------------|---|------------|
| 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

CHAIN OF CUSTODY RECORD

| AMETERS | Remarks | | | | | - | |
 | Date Time | 727 | | Sample Receipt | X > | Received Intact | Cool - Ice/Blue Ice |
|-------------------------|---------------------------|--|----------------------|--|---|---|--|------|-------------------------------|------------------------------|------------------------------|----------------|-----|--|---------------------|
| A ANALYSIS / PARAMETERS | o]m d | בנת | | | | | | | nature) D I | nature) | nature) | 2 | | 401 | - |
| | to .c | Nd | > | | | | | | Time Received by: (Signature) | Received by: (Signature) | Received by: (Signature) | ENVIROTECH INC | | 5796 U.S. Highway 64
Farmington, New Mexico 87401 | (505) 632-0615 |
| oject Location | 41050-04 | Lab Number Matrix | المربعة الم | | | | | | - | 1 | | FOVID | | 5796
Farmingto | 3) |
| مَّ | Client No. | Sample
Time | 1330 Ebg6 | | _ | | | | | | | | | • | |
| Client/Project Name | Sampler:
P. II BEEVEES | Sample No./ Sample Identification Date | المحدد كمسمول عالهما | | | | | - | Relinquished by: (Signature) | Relinquished by: (Signature) | Relinquished by: (Signature) | | | | |

MATERIAL SAFETY DATA SHEET RIETHYLENE GLYCOL

1 HMIS HEALTH

1 HMIS FLAMMABILITY O 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

ABUFACTURER'S NAME.... UNION CARBIDE

DOW CHEMICAL

TEXACO

OXY-PETROCHEMICAL

ADE NAME..... TRIETHYLENE GLYCOL

MMICAL FAMILY..... FOLYETHYLENE GLYCOL

® NUMBER.... 112-27-6

EMICAL FORMULA.... C6H14O4

SECTION II - HAZARDOUS INGREDIENTS

#Z4~OOUS COMPONENTS % TLV (Units) PROD. CAS #

The state of the s

99 None

112-27-6

LL THYLENE TOOL

Established

SECTION III - PHYSICAL DATA

EEZING POINT (F)...... -7 Deg. C., 19 Deg. F.

POR PRESSURE (mm Hg) --- <1 mm

FOR DENSITY (Air=1).... 5.2, air = 1

WBILITY IN H20..... Completely soluble in all proportions

PEARANCE/ODOR....... Clear, colorless; viscous liquid with slight odor.

ECIFIC GRAVITY (H20=1). 1.1 @ 77 Deg. F., 25/25 Deg.C

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

ASH FOINT....... 350 Deg. F.

WER FLAME LIMIT..... 0.9

OHER FLAME LIMIT..... 9.2

TINGUISH MEDIA..... Use water fog or spray, Alcohol Foam, Dry Fowder,

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.

MATTRIAL SAFETY DATA SHEET RIETHYLENE GLYCOL

SECTION V - HEALTH HAZARD DATA ... HOLD LIMIT VALUE.... Recommended 5 MG/M3 based on oil mist. SUTES OF ENTRY INHALATION? SKIN? INGESTION? Irritant Mild irritant Irritant SALTH HAZARDS...... ACUTE: Vapors or liquid may be irritating to skin. eyes, or mucous membranes. Avoid inhalation or skin/eye contact. ROINOGENICITY NTP? TARC MONOGRAPHS? OSHA REGULATED NO. NO MO MER EXPOSURE EFFECTS.... Skin irritation develops slowly after contact. Eye irritation develops immediately upon contact. IRST 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 Get medical attention. oxygen. The second secon SECTION VI - REACTIVITY DATA MDITIONS 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 FOLYMERIZATION. 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 MIOSH approved organic vapor gas cartridge respirator is recommended. MYTLATION........ Required in closed areas

E PROTECTION....... Use chemical goggles or full face shield.

INTICAL EXHAUST..... Required in closed areas

OTECTIVE GLOVES..... Wear impervious gloves

__ EXHAUST..... Desired

MATERIAL SAFETY DATA SHEET

DESCRIPTION OF SOME

TEER PROTECTIVE

FFMENT...... 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

action shown in Section V. Use with adequate Ventilation.

ventiation.

TARD CLASS..... Not Regulated

I SHIPPING NAME..... Triethylene Glycol

PORTABLE QUANTITY (RQ). None

NUMBER.... None

W..... Mone

CKAGING SIZE..... N/A

SECTION X - REGULATORY

amoute..... YES

ARONIC...... NO

. IGNITABILITY.... NO

* REACTIVITY........NO

1 SUDDEN RELEASE OF

ESSURE..... NO

3CLA RO VALUE..... None

MA TER...... Mone

A RQ..... None

MION 313..... No

3 HAZARD WASTE #..... None

∌NAIR...... 111

EAN WATER No

T MOTES M/A - not applicable M/D - no data available

- means less than > - means greater than

pp. - approximate Est. - estimated

FARED BY:..... Glen White, S.I.S., 817-540-4631

METRIAL SAFETY DATA SHEET RIETHYLENE GLYCOL

FRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS TESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE MATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US AND IS BELIEVED IN ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE MEANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE MATROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE IMPORTANCE OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL EGULATIONS.

Mobil

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED: 10/03/92

SUPPLIER:

24-HOUR EMERGENCY (CALL COLLECT);

MOBIL OIL CORP. (609) 737-4411

CHEMICAL NAMES AND SYNONYMS:

CHEMTREC:

PET. HYDROCARBONS AND ADDITIVES

(807) (50-05)

USE OR DESCRIPTION:

(800) 424-9300

NATURAL GAS ENGINE OIL

PRODUCT AND MSDS INFORMATION:

(800) 662-4525

Aumensahunga II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES Annahungana

AFFEARANCE: Dark Amber Liquid ODOR: Hild 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.

None

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A ACGIH-TLY, A Suggested-TLY, Mamobil, OaOSHA, Sa Supplier NOTE: Limits shown for guidance only. Follow applicable regulations.

EYE CONTACT: Flush thoroughly with water. If irritation persists, call a physician.

SKIN CONTACT: Wash contact areas with scap 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 veniting or give anything by mouth to an unconscious person.

HOBIL PEGASUS 485

605816-00 Page 2 of 4

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.

NFPA HAZARD ID: Health: O, Flammability: 1, Reactivity: 0

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.



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 cils 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.

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:

```
CAS NUMBER
                                                     LIST CITATIONS
CHEMICAL NAME
ZINC (ELEMENTAL ANALYSIS) (.03%)
                                      7440-66-6
                                                     22
PHOSPHORODITHOIC ACID, 0,0-DI C1- 63649-42-3
                                                     22
14-ALKYL ESTERS, ZINC SALTS (2:1)
(ZDDP) (.24%)
                    --- REGULATORY LISTS SEARCHED ---
1 = ACGIH ALL
                 6 = IARC 1 11 = TSCA 4 17 = CA P65 22 = MI 293
               7 = IARC 2A 12 = TSCA 5a2 18 = CA RTK 23 = MN RTK
8 = IARC 2B 13 = TSCA 5e 19 = FL RTK 24 = NJ RTK
2 = ACGIH A1
3 = ACGIH A2
                9 = CSHA CARC 14 = TSCA 6 20 = IL RTK 25 = PA RTK
4 = NTP CARC
                              15 = TSCA 12b 21 = LA RTK 26 = RI RTK
5 = NTP SUS
              10 = CSHA Z
```

estruguector operators (10)

CARC = CARCINOGEN; SUS = SUSPECTED CARCINOGEN

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

16 = WHMIS

```
PERCENT CAS NUMBER
        INGREDIENT DESCRIPTION
  | <----> | <--> | <--> | <---> |
CONTAINS THE FOLLOWING BASE OILS:
                                 > 95.00
  DISTILLATES (PETROLEUM). HYDROTREATED
                                                64742-54-7
    HEAVY PARAFFINIC
  DISTILLATES (PETROLEUM), SOLVENT-
                                                64742-65-0
    DEWAXED HEAVY PARAFFINIC
                                < 2.00
                                               68439-80-5
AMINES, POLYETHYLENEPOLY-, REACTION
   PRODUCTS WITH SUCCINIC ANHYDRIDE
    POLYBUTENYL DERIVS.
SULFONIC ACIDS, PETROLEUM,
                                < 2.00
                                               61789-86-4
   CALCIUM SALTS
ZINC DITHIOPHOSPHATE
                                    0.26 NJT
                                              800967-5469P
```

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, NIFOR 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 | PROD | UCT IDENTIFICATION | | |
|---|---------------------|--------------------------|----------------|------------------------|
| (1) Product Name: F 20 BIODI | | ASER : | | |
| (2) Chemical Name/Synonyn | 18; n/a | | | • |
| (3) Chemical family: Alkalin | e Detergent | | | • |
| (4) Chemical Formula: mixt | ure · | | | |
| (5) NFPA Acute hazard ratir | ្ច : | | | |
| (6) Health: 1 | - (7) Flamn | nability: _0_ | (8) Reactivi | ty: <u>0</u> |
| Section 2 | | ICAL COMPOSITION | | |
| (1) | (2) | (3) | (4) | (5) |
| Ingredient (Chemical Name) | CAS Number | Percant Range | PEL | LD ₅₀ ma/km |
| Sodium Nitrite | 7832-00-0 | <1.0 | n/a | 214 |
| Sodium Metasilicate | 6834-92-0 | <5.0 | n/a | 250 |
| Ethylene Diamine Tetraaceta | ite, | • | | |
| 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 | | |
| | Elizaatia. | ALID FIGGT AID DOOR | COURCO | |
| Section 3 (1) Eye Contact: Rinse for | | AND FIRST AID PROC | | 2 |
| (5) Special instructions for (| | | · · · | |
| Section 4 | | SIOLOGICAL EFFECTS | | · |
| (1) Primary route (s) of ent | | | | |
| (2) _Skin absorption (3 | 3)Inhalation (4 |) Xingestion | | |
| (5) Acute effects: | | blam blisterime | | |
| (6) Eyes: Blurred vis
(7) Skin: Redness. | ian, reaness, water | ing, buming, bilstering. | | |
| (8) Inhalation: Irritation | | | | |
| (9) Ingestion: Burning s | sensation, nausea. | - | · | |
| (10) Chronic Effects: (inclu | de carcinogenic pot | ential) Not known. | | |
| Section 5 | OCCUPATION | VAL CONTROL PROCE | OURES | |
| (1) Ventilation: (2)Local exhaust. | (3) <u>X</u> Gener | al áchanat | (4)None requ | ired. |
| (5) Personal protective equi | | ar ganaust. | (4)(10)14 .edo | |
| (6) Respirator type: No | | | | |
| |)Natural rubber | (9)Plastic | (10)N | itrile |
| (11) X Neoprene | (12)Butyl | (13) | _Other | |
| | X Glasses with side | | | |
| | Full face shield | | • | |
| | Chemical splash | aeigpop | | |
| | _Other: None | ; | | |

| Secti | on 6 PHYSICAL DATA |
|--------------|--|
| (1)
(2) | Appearance/Odor: Clear green liquid. Physical state: (3)Solid (4) _X_Liquid (5)Gas |
| (6) | Boiling point: 212°F (7) Freezing point: 32°F (8) Specific gravity (H ₂ O=1): 1.06 |
| (9) | pH (full strength): 12.5 (10) pH (dilution): 11.5 |
| (11)
(13) | Solubility in water: Complete (12) Vapor pressure: 17.5 mm Hg. @20°C Vapor density (air=1): n/a (14) Evaporation rate (water=1): >1 |
| Secti | on 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)
(7) | Suitable extinguishing media: 'n/a (6) Hazardous combustion by-products: n/a Recommended fire fighting procedures: n/a (8) Unusual fire & explasion hazards: n/a |
| Secti | on 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 | on 9 STORAGE AND HANDLING PRECAUTIONS |
| (1) | Storage: Store at temperatures below 1200F. |
| (2) | Handling: Wear chemical resistant gloves, apron and eye and face protection. |
| (3) | Precautionary labeling: none. |
| Section | on 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)RCHA or appropriate characteristic waste. If so, EPA Hazardous No. none |
| | (8)RCRA or approved listed waste: If so EPA Hazardous waste No. none |
| /10\ | (9) X Non-RCRA regulated waste. |
| (10)
(11) | Procedure for handling empty containers: rinse thoroughly. Environmental toxicity data: biodegradable. |
| | Other regulatory controls: |
| (12) | (13) Is material classified under the CLEAN WATER ACT (USA) or appropriate water regulations as |
| | a: (14) Toxic pollutant (section 307)? XNo (15) Hazardous substrace (section 311) XNo |
| | (16) Oil (section 311)? XNo (17) Is material classified under the CLEAN AIR ACT (USA) or |
| | appropriate CLEAN AIR REGULATIONS as a: (18) Hazardous air pollutant (section 12)? XNo |
| Saction | on 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 US LABOR DEPT, ESSENTIALLY SIMILAR TO FORM OSHA 174

SECTION 1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION

PRODUCT IDENTITY: 8-9 CHEMDIP CARBURETOR AND PARTS CLEANER (LIQUID)

PART NUMBER(S): 0901, 0902, 0905, 0948, 0996 and 0955. (BLEND 2AAC)

COMPANY NAME: BERRYMAN PRODUCTS, INC. PHONE NO. (800) 433-1704

3800 EAST RANDOL MILL RD. EMERGENCY RESPONSE NUMBER:

ARLINGTON, TEXAS 76011 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 1985 & of 40 CFR 372.

| HAZARDOUS INGREDIENTS Monochlorotoluene "Methylene Chloride "Mized Xylenes Ethyl Phenols Xylenels | CAS#
25168-05-2
75-09-2
1330-20-7
25139-37-2
13,034-33 | WT. %
24
29
7 | (REG. SECTION)
(311,312)
(311,312,313)
(311,312,313)
(311,312) |
|---|---|---|--|
| MATERIAL Monochlorotoluene Methylene Chloride Mixed Xylenes Ethyl Phenois Xylenois | CA3#
25168-05-2
75-09-2
1330-20-7
25429-37-2
1300-71-5 | TWA (OSHA)
50 ppm
25 ppm
100 ppm
N/E
N/E | TLV (ACGIH)
50 ppm
50 ppm
180 ppm
N/E
N/E |
| MATERIAL Methylene Chloride Mixed Xylenes Monochlorotoluene Ethyl Phenois Xylenois | CAS#
75-09-2
1330-20-7
25158-05-2
25429-37-2
1300-71-6 | CEILING
1000 ppm
N/E
N/E
N/E
N/E | STEL (OSHA/ACGIM) 125 ppm 150 ppm N/E 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 line exposed containers with water spray.
UNUSUAL EXPLOSION AND FIRE PROCEDURES: Firelighters should wear self contained breathing apparatus due to corrosive thermal decomposition products, and avoid skin contact.

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PAGE 1 OF 4

SECTION 4. PHYSICAL DATA (LOWER SOLVENT LAYER)***

APPEARANCE: Amber liquid ODOR: Characteristic **BOILING RANGE:** 39 C / 103 F GRAVITY & 50 F: SPECIFIC GRAVITY (Water=1): 1.126 FOUNDS/GALLON: 3,38 VAPOR PRESSURE (mm of Hg) @ 20 C: >300. VAPOR DENSITY (air = 1): 2.9 SOLUBILITY IN WATER: Negligable **MELTING POINT:** NA % VOLATILE BY VOL: 85

requerion uperatursitht.

*** CHEMOIP 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, dermatkis, Absorption through skin increases exposure.

INHALATION:

Vapor harmful!! Breathing vapor may cause respiratory infinition. Acute overexposure can cause serious nervous system depression, ranging from dizziness, nausea, vomitting, 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 LARC: yes OSHA: no

PAGE 2 OF 4

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SECTION 10. EXPOSURE CONTROLS AND PERSONAL PROTECTION

rroduction uperators, inc.

VENTILATION:

LOCAL EXHAUST: Necessary

MECHANICAL (GENERAL): Acceptable

OTHER: Name

SPECIAL: 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 10. No. |
|------------------------|---|------------|------------|------------|
| 0901,
0948,
0998 | CONSUMER COMMODITY "Limited Quantity" | ORM-D | N/A | UN2810 |
| 0902,
0905,
0955 | TOXIC LIQUIDS, ORGANIC
n.a.s. contains
methylene chloride | 6.1 | D } | UN2810 |

SECTION 12. OTHER INFORMATION

All information appearing herein is based upon data obtained from manufacturers end/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.

PAGE 4 OF 4.

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 tresh 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 exidizers, painted surfaces.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide, and Carbon Dioxide, Hydrogen

Charide, small amounts of Phosgene from burning.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 8. SPILL, LEAK AND DISPOSAL PROCEDURES

a amm sicillatory

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 good well ventilated area below 120 F. Do not store in direct sunlight. Do not incinerate containers.

PAGE 3 OF 4

MSDS 7,828

SIGNS AND SYNPTOMS

TRRITATION AS NOTED ABOVE. EARLY TO MODERATE CNS DEPRESSION MAY BE EVIDENCED BY GIODINESS,
EADACHE, DIZZINESS AND NAUSZA; IN EXTREME CASES, UNCONSCIOUSNESS AND DEATH MAY OCCUR. 'ASPIRATION "NEUMONITIS 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.

| SECTI | DN IV | OCCUPATION | L EXPOSURE LIMIT | .2 | |
|-------|--------------------|----------------------|------------------|------------------|------------|
| | OSHA | | ACG | | DTHER |
| NO. | PEL/TWA | PEL/CEILING . | TLY/YNA | TLY/STEL | |
| ρ= | SCO PPM | | 300 PPM | | 400 PPM ** |
| *RECO | MMEND EXPOSURE LIM | ITS FOR VMEP NAPHTHA | AS A GUIDELINE. | **OSHA PEL/STEL. | |
| | | | • | | |
| | | | | | |

EYE CONTACT

SECTION V

FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

EMERGENCY AND FIRST AID PROCEDURES

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 DAYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL RESPIRATION IF NOT BREATHING. GET MEDICAL ATTENTION.

AGESTION

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 KICNEY 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.

PRODUCT NAME: SHELL SOL ZP

MSDS 7.628

SECTION VII

PHYSICAL DATA

BOILING PCINT: 224-274

(DEG F)

SPECIFIC GRAVITY: 0.744 P GO DEG F

(H20=1)

VAPOR PRESSURE: 41 P

(MM HG)

100 DEG F(EST)

MELTING POINT: NOT AVAILABLE

(DEG F)

(IN WATER)

SOLUBILITY: NEGLIGIBLE

VAPOR DENSITY: 4.0

(AIR=1)

EVAPORATION RATE (N-BUTYL ACETATE = 1): 2.5 (EST)

VOC: 100% @ 6.13 LB/GAL 077 DEG F

APPEARANCE AND COOR:

COLORLESS LIQUID. HYDROCARSON 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 BOCTS), INCLUCING A POSITIVE PRESSURE NICSH 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

OTABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:

AVOID HEAT, SPARKS, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARCOUS DECOMPOSITION PRODUCTS

CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X

EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

AVGIC PROLONGED OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. IV) USE A MIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR CRGANIC 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 MAZARD AREA OF UNPROTECTED PERSONNEL. WEAR APPROPRIATE RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF SOURCE OF LEAK ONLY IF SAFE TO CO 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 PLUSH 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 DEF OTHER SCURCES 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

APARTMENT 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 AMENOMENTS 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 XY

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.

PAGE B

STATE LISTED COMPONENT

PERCENT

STATE CODE

BENZENE

(CAS NO: 71-43-2

<30 PPM

MA, CA65

CA = CALIFORNIA HAZ. SUBST. LIST: CAG3 = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT LIST; CT = CONNECTICUT TOX. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINDIS 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 CANGER AND/OR REPRODUCTIVE TOXICITY.

SECTION XVI

SPECIAL NOTES

THIS MEDS 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 DETAINED 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 PROCUCT SAFETY INFORMATION ... AND PASS IT CN (PRODUCT LIABILITY LAW REQUIRES IT) SHELL DIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. D. BOX 4320
HOUSTON, TX 77210

Institute of Gas Technology 3424 South State Street Chicago, IL 60616 (312) 567-3650



HETHANE

CAS # 000-074-828

Date: September 1987 CL

SECTION I. MATERIAL IDENTIFICATION

MATERIAL NAME: METHANE

DESCRIPTION: Compressed gas (Max. 2000 psig) in cylinders

OTHER DESIGNATIONS: CH4, Methyl Hydride, Marsh Gas, Natural Cas

| SECTION II. INGREDIENTS AND HAZARDS | z | HAZARD DATA |
|--|---------|---------------------|
| METHANE | 93 min* | Simple asphyxiant** |
| Typical Impurities: (See ASTM D1945 for method of analysis) | | 1 |
| Echane | <4 | Simple asphyxiant |
| Propane | <1 | Simple asphyxiant |
| Butanes | <0.4 | Simple asphyxiant |
| Butanes CxH2x+2 (x=5 and above) | <0.1 | 1 |
| Cârbôn dioxide | <0.7 | 1 |
| Nitrogen | <0.6 | 1 . |
| Oxygen | <0.1 | ì |
| "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 (ACCIH, 1979) requires a minimal oxygen content of 18% by volume in workplace air at 1 atm. | | |

A CONTRACTOR OF THE SECTION OF THE S

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 EX | PLOSION DATA | | Lower | Upper |
|-------------------------|--------------------|----------------------------|-------|-------|
| Flash Point and Method | Autoignition Temp. | Flammability Limits in Air | | |
| -306°F | 1004°F | I by volume | 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 nicrogen 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

DISCLAIMER: Judgements as to the suitability of information herein for users purposes are necessarily user's responsibility. Therefore, although reasonable care has been taken in the preparation of this MSDS IGT extends no warranties, makes no representations and assumes no responsibility as to the accuracy or suitability of such information for application to purchaser's intended purposes or for consequences of its use.

LYONDELL PETROCHEMICAL COMPANY 1221 MCKINNEY AVENUE, SUITE 1600 P.O. BOX 3646 HCUSTON, TEXAS 77253-3646

IMPORTANT: Read this MSDS before handling and disposing of this product and pass this information on to employees, customers, and usors of this product. This product is considered a

hazardoux chemical under the OSHA Hazard Communication Rule.

| | | | | USHA nazaro Communication Rule. |
|--|--|---|--|--|
| I | | Genera | | |
| Trada
Nama | METHANOL 1 | | | Telephone Numbers
EMERGENCY |
| Other Names | WOOD ALCOHOL: WOOD NA | S ASTM D-1152 SPECIFICA
PHTHA:
PIRITS: MANHATTAN SPIRI | | 800/424-9300 CHEMTRED
800/245-4532 HOT LINE
CUSTOMER SERVICE
713/652-7200 INFO ONL |
| Chemical
Family | ALIPHATIC ALCOHOL | | i | aterials Proper Shipping Name ETHYL ALCOHOL(RQ-5000/2270) |
| Generic Name | METHANOL | | DOT Hazard Class
3 (Flammable L | .iquid, poison) |
| CAS No. | 67-56-1 | Company
ID No. ECC0142300 | עאט | 'NA ID No. UN 1230 |
| II., | ANGER | Summary of H | azarcis | |
| | WASH THOROUGHLY AFTER Y BE HARMFUL IF INHALED AVOID BREATHING VAPOR VAPOR INHALATION OR L NERVOUS SYSTEM (CNS) EXPOSURE MAY CAUSE OP | R VAPOR CONTACT: WEAR
R HANDLING: (SEE SECTION | PROPER PROTECTION V. AND "SUPPL
DRGAN DAMAGE!
JATE VENTILATION
HE SKIN CAN CAUS
OR REPEATED HIGH
ENARY AND/OR CERI
EY FAILURE, AND I | VE CLOTHING. EMENT"). E CENTRAL H INHALATION EBRAL EDEMA, |
| Flash Point (M
AP 53 | athod)
*F · (D-56) | Autoignition Temperature (| Method) Flamn | nable Limits (% Vol. in Air) Irmal Atmospheric Temperature and Pressur ar AP 6.0 Upper AP 36.5 |
| SEE *FIRE 8 | & EXPLOSION HAZARDS" | BASED UPON NEPA "ME | | SED UPON NEPA "METHANCL" |
| Fire and
Explosion 1
Hazards 3 | EXTREMELY FLAMMABLE! TO
TEMPERATURES. WHEN MIX
IGNITION SOURCE, THESE N
SPACES. BEING HEAVIER
ALONG THE GROUND BEFORE | VAPORS CAN BURN IN THE
THAN AIR, FLAMMABLE VAP | PROPORTIONS AND
OPEN OR EXPLODE
ORS MAY TRAVEL L | EXPOSED TO AN IN CONFINED ONG DISTANCES |
| Extinguishing ⁽
Madia | ALCOHOL TYPE FOAM
DRY CHEMICAL
502
WATER FOG, WATERSPRAY, A
BUT PROBABLY WILL NOT AC | | 4 - E
3 - H
2 - M
1 - S | Ioderate Health |
| Special Marging Confighting Condedures Special F | AIXTURES WITH WATER CONT
DIKE UP FIRE CONTROL WAT
METHANOL FIRES MAY NOT S
MONFINED/ENCLOSED FIRE S
MELS-CONTAINED BRIATHING
ROM THE SIDE UNTIL WELL
THERE IS A RISING SOUND | TER FOR LATER DISPOSAL;
BE VISIBLE TO THE NAKED
SPACE WITHOUT PROPER PRO
LAPPARATUS, WATER COOL
LAFTER THE FIRE IS OUT. | METHANOL ARE DO NOT SCATTER EYE. DO NOT EN TECTIVE EQUIPMEN FLAME-EXPOSED EVACUATE IMMEN | THE MATERIAL. TER ANY NT, INCLUDING CONTAINERS DIATELY IF |

250 PPM

STEL

15 MIN

| | 63 | | 3 mg m / | 4/9/16 | 11/2 | 55 |
|-----------|----------|---------|----------|--------|--------------|----|
| . W. Saul | ATT. 412 | TO BE . | | 70 400 | 20.04 | • |
| **** | 42.73 | 1.11 | 1732 | 2.6 | # L . | 3 |
| A | | | (a | | | |

TV MARKET Summary of LIQUID, MIST OR VAPORS CAN CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION AND CNS DEPRESSION. ASPIRATION INTO THE LUNGS WILL CAUSE CHEMICAL PNEUMONIA Acute Hazards ROUTE OF EXPOSURE SIGNS AND SYMPTOMS Primary Rou! SHORT-TERM EXPOSURE TO HIGH LEVELS OF VAPOR MAY CAUSE CNS DEPRESSION. Inhalation X SYMPTOMS INCLUDE NAUSEA, DROWSINESS, VERTIGO, FATIGUE, CONVULSIONS, UNCON-CIGUSNESS AND DEATH, DEPENDING ON EXPOSURE DURATION. (SEE "SUMMARY" BELOW.) EYE IRRITATION MAY OCCUR UPON SHORT-TERM EXPOSURE. INCLUDING A BURNING Eye SENSATION, TEARING, REDNESS, OR SWELLING. UPON DIRECT CONTACT WITH LIQUID, X Contact CONJUNCTIVITIS AND CORNEAL BURNS MAY OCCUR. UPON PROLONGED OR REPEATED CONTACT, ASSORPTION THROUGH THE SKIN MAY OCCUR Skin AND PRODUCE TOXIC EFFECTS SIMILAR TO THOSE RESULTING FROM INHALATION X **Abscrption** EXPOSURE. (SEE "SUMMARY OF CHRONIC HAZARDS" BOX BELOW.) SKIN IRRITATION OR MORE SERIOUS DISORDERS MAY OCCUR UPON PROLONGED AND Skin \mathbf{Y} REPEATED CONTACT DUE TO SKIN DEFATTING. **Irritation** SWALLOWING ONLY 1 TO 4 CUNCES HAS BEEN REPORTED TO CAUSE DEATH OR SERIOUS -= -Ingestion বি IRREVERSIBLE INJURY SUCH AS BLINDNESS. METHANOL METABOLISM CAUSES SYSTEMIC ACICOSIS RESULTING IN DAMAGE TO THE OPTIC NERVE. SYMPTOMS MAY BE DELAYED. METHANOL IS SLOWLY ELIMINATED FROM THE BODY, HENCE REPEATED EXPOSURES MAY 4.4 Summary of RESULT IN TOXIC LEVELS IN THE BLOOD AND TISSUES. IN LIMITED ANIMAL STUDIES. Chronic Hazards WHERE METHANOL WAS GIVEN ORALLY OR APPLIED TO THE SKIN. THERE HAS BEEN NO and EVIDENCE OF CARCINOGENIC POTENTIAL. METHANOL HAS BEEN REPORTED TO CAUSE . Special Health BIRTH DEFECTS IN RATS EXPOSED TO VERY HIGH CONCENTRATIONS (20,000 PPM). Effects PERSONNEL WITH PRE-EXISTING CNS DISEASE. SKIN DISORDERS, IMPAIRED LIVER OR 4 KIDNEY FUNCION, OR CHRONIC RESPIRATORY DISEASES SHOULD AVOID EXPOSURE. V Protective Equipment and Other Control Measures DO NOT USE AIR-PURIFYING RESPIRATOR, ONLY NIOSH/MSHA APPROVED SUPPLIED AIR 🐡 🤔 Respiratory OR SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE ARE SATISFACTORY, IF EXPOSURE CAN EXCEED THE PEL/TLV. EYE PROTECTION SUCH AS CHEMICAL SPLASH GDGGLES AND/OR FACE SHIELD MUST BE Eye WORN WHEN POSSIBILITY EXISTS FOR EYE CONTACT DUE TO SPLASHING OR SPRAYING LIQUID, AIRBORNE PARTICLES, OR VAPOR. CONTACT LENSES SHOULD NOT BE WORN. WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES, Skin APRON, SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN. THIS EQUIPMENT MUST BE CLEANED THOROUGHLY AFTER EACH USE. GENERAL ROOM OR LOCAL EXHAUST VENTILATION IS USUALLY REQUIRED TO MEET EX-Engineering POSURE STANDARD(S). Controls EMERGENCY EYE WASH FOUNTAINS AND SAFETY SHOWERS SHOULD BE AVAILABLE IN THE * IMMEDIATE VICINITY OF ANY POTENTIAL EXPOSURE. Other Hygienic and Work Practices 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 Occupational Exposure Limits Value/Units Substance Date Type Source 8 HRS METHYL ALCOHOL (METHANOL) - SKIN OSHA" 1989 PEL 200 PPM 8 HRS 200 PPM METHYL ALCOHOL - SKIN ACGIH 1991 TLV



| Lv _{II} | 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. | 34 |
| 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. | |
| YHE | Spill and Disposal | |
| Precautions if Material is Spilled or Released | EXTREMELY FLAMMABLE LIQUID! RELEASE CAUSES AN IMMEDIATE FIRE/EXPLOSION HAZARO. 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 (8CO/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.TAPPROVED 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. BIDDEGRADATION MAY BE USED ON DILUTE AQUEOUS WASTE. ASSURE EMISSIONS AND EFFLUENT COMPLY WITH APPLICABLE LAWS. | |

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|--------|------|
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| | |
| \sim | |

Components

This may not be a complete list of components

Component Name

METHANOL (METHYL ALCOHOL)

CAS No.

Carcinogen##

67-56-1 N/AP GT

Composition amount (Mt) (See Qualification on Page 4) 99.9 PERCENT

Campagitions divas are typical

---- 7 -1

| WETHANOL | | | | | MSDS No. HCRO | 201423 |
|---|---|---|---|---|--|--|
| X | | lysical a | nd Chemia | al Data | ************************************** | |
| Boiling Point (At 760.0 m
AP 143' F | | /iscosity Units, Terr | | o'C (D-445) | Dry Point | |
| Freezing Point AP -144 F | ľ | /apor Pressure
(MM HG AT 68 | S'F) AP | 96 | Volatile Characterist APPRECIABLE | |
| Specific Gravity (H ₁ O = 1
AP 0.79 | | /apor Sp. Gr. (Air = 1 | 1.0 at 60°-90 F) | Solubility in Water COMPLETE | pH
N/AP | |
| Hazardous Polymerization NOT EXPECTED TO GCCU | | Other Chemical Read | | TH WATER. | Stability
STABLE | |
| Other Physical and Chemical Properties | | | | " = LT 0.05 WT.% (
"ATE = 1.0). | ASTM D-1364); | |
| Appearance
and Odor | CLEAR, COL | ORLESS LIQUID: F | FAINT. CHARACT
N AIR; GOOR IS | ERISTIC ALCOHOL O
NOT A GOOD INDIC | DOOR:
CATOR OF EXPOSURE | LEVEL. |
| Conditions
to Avoid | HEAT, SPAR | KS. OPEN FLAME. | AND OXIDIZING | CONDITIONS. | | i de la companya de l |
| Materials
to Avoid | METAL WHITE | U WILL BICS LOC | UVODOCENIA CED | TATM EDDME OF DIA | ANY OTHER REACTI
STICS: AND RUBBER
ON PROLONGED CON | 00 37 |
| Hazardous
Decomposition
Products | EXCESSIVE POISONOUS | HEATING AND/OR I
CARBON MONOXIDE | NCOMPLETE COM
AND PERHAPS O | BUSTION WILL GENE
THER TOXIC VAPORS | RATE HIGHLY
SUCH AS FORMALDE | HYDE. |
| XI. | | Addition | ial Precaut | lons | | |
| FROM HEAT. LABELED! OF WITH ADEQUAR COOL (LT 80 STORAGE) AND NEC RECOMMENT SUBJECT OF BY CHILD OR MAINTENAR DEFICIENCES | SPARKS, AND GROUND ALL (ATE VENTILAT OFF.), WELL SHOULD COMPL OUIREMENTS. DERAL LABEL OREN. DO NO ONT, DRAIN, NOCE. REMON ON AND EXPLOSE ON AND EXPLORE ON AND EXPLOSE ON | DRUMS AND TRANSF
TION! AVOID BRE
VENTILATED PLAC
LY WITH NFPA STA
""PETROLEUM DIS
ING IF INTENDED,
DT USE THIS MATE
WASH AND PURGE
VE ALL IGNITION
SIVITY. USE ADE | EEP CONTAINERS ER VESSELS WHE ATHING VAPORS E. THE STORAG NDARDS OF CLAS TILLATE -16 OF OR PACKAGED F RIAL AS A CLE SYSTEMS OR EQU SOURCES. CHEG QUATE PERSONAL | S CLOSED AND PLAIMEN HANDLING. USE. STORE SAMPLES TO AREA AND VENTIMES TO AREA AND VENTIMESS-IA/B FLAMMABLE FR 1500.14(B)(3). | ONLY IN A LATION LIQUIDS USE USEHOLD Y REPAIR OXYGEN PMENT | The state of the s |
| DEATH. DNS TO ONSET OF TO ONSET OF INDUCE VOMI ETHANOL INH A LOADING D MINUTES: MA LEVEL DURIN BE ADMINIST | ET OF SYMPT SYMPTOMS M TING ASAP (IBITS FORMA OSE OF 7.6- INTENANCE D G ETHANOL T ERED INTRAV | FOMS MAY RE DELAMAY BE LIFE-SAVING WITHIN 30 MINUTATION OF TOXIC MINUT-10 ML/KG OF BOD OOSE OF 1.4 ML/KG THERAPY. (IF CH./ENOUSLY AND NOT | YED FOR 18-24
NG. METHANDL
ES OF INGESTIC
ETABOLITES. I
Y WEIGHT OF 10
G TO ACHIEVE 1
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IS: LT = Less Than | AP = Appro
UK = Unkno | | Applicable Information of Applicable | Found |

Disclaimer of Liability

epenT = FT

N/DA = No Data Available

The information in this MSDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.

LT = Lass Than

GT = Greater Than

The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS. DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THE PRODUCT.

This MSOS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSOS information may not be producted.



nformation Regulatory

SUPERFUND AMENDMENTS AND REAUTHORIAZATION ACT OF 1986 (SARA), TITLE III - 111 SECTION 311/312 HAZARD CATEGORIES ä., IMMEDIATE (ACUTE) HEALTH HAZARD

DELAYED (CHRONIC) HEALTH HAZARD

. . . .

والمناب أحامل المنابعة
SECTION 313

FIRE HAZARD

THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 313 AND 40 CFR 372: METHANGL (METHYL ALCOHOL)

A CONTRACTOR OF THE SAME AND A SA

.. .._-:

TOXIC SUBSTANCES CONTROL ACT (TSCA)

ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

CHERTAL THE SUB-LINE WAS ARREST

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CLEAR CONTROL FOR THE PROPERTY OF THE PROPERTY

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 5000#/2270KG

METHANOL (METHYL ALCOHOL)

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1988 - PROPOSITION 85 THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED BY THE STATE OF CALIFORNIA AS "KNOWN TO THE STATE TO CAUSE REPRODUCTIVE TOXICITY": ETHANGL (ETHYL ALCOHOL)

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MSUS No. HC9001423

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XIII

Labelintornation

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:

Hazard Class-

Proper Shipping-

UN/NA ID Number- UN 1230 3 (FLAMMABLE LIQUID, POISON)

METHANOL OR METHYL ALCOHOL(RQ-5000/2270)

Instructions:

In case of fire, use-

ALCOHOL TYPE FOAM DRY CHEMICAL

HALON FOAM

C02

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. IMMEDIATELY FLUSH EYES WITH PLENTY OF CLEAN LOW-PRESSURE WATER FOR AT LEAST

-Eye Contact

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.

-Indestion

SEE EMERGENCY MEDICAL TREATMENT PROCEDURES AND

Label No.:

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

Page

6 of

-Respiratory

-Eye -Skin

6

DO NOT USE AIR-PURIFYING RESPIRATOR. ONLY NIOSH/MSHA APPROVED SUPPLIED A OR SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE 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 WHEN SKIN CONTACT IS POSSIBLE, PROTECTIVE CLOTHING INCLUDING GLOVES,

APRON. SLEEVES, BOOTS, HEAD AND FACE PROTECTION SHOULD BE WORN.

DBHCR001423

Revision No. 003 Issue No. CO3

Date: 03/06/92

03/05/92

Date:



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-Sla

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 | and the second section of the second section of the second section of the second section of the second section |
| 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

¹Hazard 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.

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 $\sim 4 \times 10^{5}$

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 Rating²:

Health: 0

Flammability: 1

Reactivity: 0

Flammable Limits (% by volume in air):

Extinguishing Media:

Lower: ND Upper: ND

CO2, dry chemical, foam, water fog.

Special Fire Fighting Procedure:

None.

Unusual Fire or Explosion Hazard:

Water may cause frothing.

²Hazard 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:

Conditions Contributing to Instability:

Incompatibility:

Excessive heat. Strong oxidants

Stable.

Hazardous Decomposition Products (thermal, unless otherwise specified): CO2, (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 | 740 |
|--------------|----|----------------------|-----|
| Toxic | No | Reproductive Effects | No |
| Corrosive | No | Mutagen | No |
| Irritant | No | Target Organ | No |

NA-Not Applicable ND-No Data CITGO Gas Engine Oils SUS 450-2000 (GE-S1a, April 4, 1997, CIN: 1954) NE-Not Established

Page 3 of 7

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/M³) | ACGIH TLV
STEL/
Ceiling (C)
ppm (mg/M³) | ACGIH
TLV
Skin
notation? | OSHA PEL
TWA
ppm (mg/ M³) | OSHA PEL
STEL/
Ceiling (C)
ppm
(mg/M³) | 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

Wear body-covering work clothes to avoid prolonged or repeated exposure. Launder

Equipment:

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.

NA-Not Applicable

ND-No Data

NE-Not E

CITGO Gas Engine Oils SUS 450-2000 (GE-S1a, April 4, 1997, CIN: 1954)

Page 1954

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:

<u>No</u> -

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 |

NA-Not Applicable

ND-No Data

NE-Not Established

CITGO Gas Engine Oils SUS 450-2000 (GE-S1a, April 4, 1997, CIN: 1954)

Page 6 of 7

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 |
| | |

ALL STATEMENTS, INFORMATION, AND DATA PROVIDED IN THIS MATERIAL SAFETY DATA SHEET ARE BELIEVED TO BE ACCURATE AND RELIABLE, BUT ARE PRESENTED WITHOUT GUARANTEE, REPRESENTATION, WARRANTY, OR RESPONSIBILITY OF ANY KIND, EXPRESSED OR IMPLIED. ANY AND ALL REPRESENTATIONS AND/OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION OR PRODUCTS FOR THEIR PARTICULAR PURPOSE. NOTHING CONTAINED HEREIN IS INTENDED AS PERMISSION, INDUCEMENT OR RECOMMENDATION TO VIOLATE ANY LAWS OR TO PRACTICE ANY INVENTION COVERED BY EXISTING PATENTS, COPYRIGHTS OR INVENTIONS.

COASTAL 1760-C

HNIS HEALTH

0

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HMIS FLAMMABILITY

HNIS REACTIVITY

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 CHEMICAL FAMILY..... AMINE SOLUTION CAS NUMBER..... Blended Material CHSMICAL FORMULA..... Confidential Business Information SECTION II - HAZARDOUS INGREDIENTS % . HAZARDOUS COMPONENTS TLV (Units) FROD. CAS # NOT HAZARDOUS AS DEFINED NO DATA NO DATA IN 29 CFR 1910.1200 SECTION III - PHYSICAL DATA TREEZING FOINT (F)..... - 5 F VAPOR PRESSURE (mm Hg)... N/D WAFOR DENSITY (Air=1).... >1 SOLUBILITY IN H20..... Soluble APPEARANCE/ODOR..... Hazy solution, Amine odor SPECIFIC GRAVITY (H20=1). 1.045 PH..... 10.4 to 11.0 SECTION IV - FIRE AND EXPLOSION HAZARD DATA PLASH POINT....... > 212 F LOWER FLAME LIMIT..... N/A BIGHER 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 SKIN? TES OF ENTRY INHALATION? INGESTION? Irritant Unlikely to occur Irritant

MATERIAL SAFETY DATA SHEET

المائية فالمراكب المائية المراجونية

HEALTH HAZARDS ACUTE: Vapors or liquid may be irritating to skin. eyes, or mucous membranes. Avoid inhalation or skin/eye contact.

U...CINDGENICITY No

NTF?

Not Listed

IARC MONOGRAPHS?

OSHA REGULATED

Na

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 any second unconscious person.

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY..... Froduct is Stable

CONDITIONS TO AVOID..... None

INCOMPATIBLE MATERIALS... Oxidizers or Oxidizing Materials.

DECOMPOSITION FRODUCTS... From Fire; Smoke, Carbon Dioxide, Carbon Monoxide, and

Oxides of Nitrogen.

HAZARDOUS FOLYMERIZATION. 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 DISFOSAL 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 FROTECTION...... Use chemical goggles or full face shield.

OTHER PROTECTIVE

EQUIPMENT..... Recommended

- SPECIAL HANDLING SECTION IX

)LING AND STORAGE.... No Special

MATERIAL SAFETY DATA SHEET COASTAL 1760-C

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 SHIFFING NAME..... NOT REGUALTED

REPORTABLE QUANTITY (RQ). None 'N NUMBER..... None NA #..... None PACKAGING SIZE..... All

SECTION X - REGULATORY

RPA ACUTE..... Yes REA CHRONIC...... No RPA IGNITABILITY..... No EPA REACTIVITY..... No EPA SUDDEN RELEASE OF FRESSURE......

CERCLA RQ VALUE..... None

BARA TFQ..... None SARA RQ..... None

S IDN 313..... Not listed

A HAZARD WASTE #..... None CLEANAIR..... No CLEAN WATER..... No

-300T 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

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.

MATERIAL SAFETY DATA SHEET COASTAL 1760-C

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RADE NAME......... COASTAL 1760-C

S.GNAL WORD..... CAUTION!

STATEMENT OF HAZARD..... CAUSES IRRITATION



Date Issued:

03/08/91 01/04/91

Supercedes: 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:

CHEMTREC: (800) 424-9300

NONE

. .

TRANSPORTATION EMERGENCY Company: (914) 831-3400
HEALTH EMERGENCY Company: (914) 831-3400
GENERAL MSDS ASSISTANCE (914) 838-7204

TECHNICAL INFORMATION Fuels: (914) 838-7336; Lubricants/Antifreezes: (914) 838-7509

OSHA

IARC

None Established

NTP

OTHER

Chemicals: (512) 459-6543

2. COMPOSITION/INFORMATION ON INGREDIENTS

Product and/or Component(s) Carcinogenic According to: \overline{x} Composition: Range in % Chemical/Common Name CAS NO. Exposure Limit 50ppm Ceiling-OSHA 80.00 - 94.99 1,2-ethanediol 107211 50ppm Ceiling-ACGIH 1.00 - 3.99

7732185

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

Water deionized

EMERGENCY OVERVIEW .

Appearance and Odor: Fluorescent green liquid; mild odor

WARNING STATEMENT

DANGER!

HARMFUL OR FATAL IF SWALLOWED

<u>X</u> .

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

NEPA

Health: Flammability: Reactivity: 0 Health: Flammability: Special:

Reactivity: 0 Special:

POTENTIAL HEALTH EFFECTS

INHALATION INGESTION EYE SKIN

Primary Route of Exposure:

X X

Page: 1 N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested - Less Than - Greater Than



PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT

Date Issued: Supercedes: 03/08/91

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

- Less Than

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.

Page: 2

N.D. - Not Determined N.A. - Not Applicable

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N.T. - Not Tested



Date Issued: PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT 01/04/91 Supercedes:

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. Flammable Limits (%) Lower: 3.2 Flash Point Degrees F. (Method): 244 F (PM) 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.

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.

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N.A. - Not Applicable N.D. - Not Determined - Less Than - Greater Than

N.T. - Not Tested



PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT

Date Issued: · 03/08/91 Supercedes: 01/04/91

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 (H20=1) Vapor Density: 2.14

pH of undiluted product: 11.0 Solubility in Water: Sol. Vapor Pressure: LT 0.1 mmha

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

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. OCCUR DO NOT OCCUR

Hazardous Polymerizations:

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 believed to be 15-25/110 (rabbit); slightly irritating Eves:

Sensitization: N.D.

Other:

Ethylene glycol has been shown to cause birth defects in laboratory

Continuous ingestion of a diet containing 1% or 2% ethylene glycol for two years produced liver and kidney damage, and bladder stones in rats.

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N.D. - Not Determined N.A. - Not Applicable - Less Than

N.T. - Not Tested



PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT

Date Issued: Supercedes: 03/08/91

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

Titls III Section 302/304 Extremely Hazardous Substance:

Component CAS No. Percent RQ (1bs) TPQ (1bs)

NONE

CERCLA Section 102(a) Hazardous Substance

ComponentCAS No.PercentRQ (1bs)Trisodium orthophosphate101018900.1-0.995000Disodium phosphate75587940.1-0.995000

Title III Section 311 Hazard Categorization
Acute Chronic Fire Pressure Reactive Not Applicable

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

Page: 5
N.D. - Not Determined N.A. - Not Applicable N.T. - Not Tested

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PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT

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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 MERCHANTABILTLY 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

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

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PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT

Date Issued: 03/08/91 Supercedes: 01/04/91.

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 immediaate 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 % 80.00 - 94.99 1.2-ethanediol 107211 Water deignized 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

: 2 Reactivity : 0

Flammability: 1 Special

National Fire Protection Association Health Reactivity : 0 : 1

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.

Page: 7

N.A. - Not Applicable - Greater Than

N.T. - Not Tested

N.D. - Not Determined

- Less Than



PRODUCT CODE: 02353
PRODUCT NAME: TEXACO ANTI-FREEZE COOLANT

Date Issued: 03/08/91 Supercedes: 01/04/91

16. PRODUCT LABEL (CONT)

Texaco Lubricants Co. Div of TRMI P.O. Box 52332 Houston, TX 77052 Manufacturer's Name:

TRANSPORTATION EMERGENCY Company: (914) 831-3400 CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400