NM1 - 6

C-138

YEAR(S):

1998

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

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

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Oil Conservation Division

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Navajo Refining Artesia facility. The waste was generated by spill cleanups. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

04-007

APR 1998
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Printed Hobbs 4/23/98

Estimated Volume 15 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

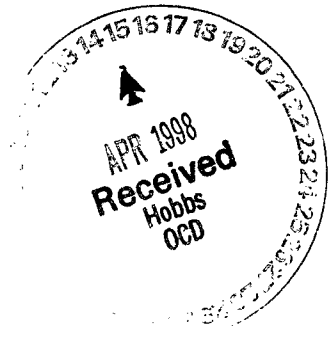
SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Environmental Compliance Manager DATE: 04/14/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Env Engr DATE: 4-17-98

APPROVED BY: _____ TITLE: Env DATE: 4/23/98


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OCD - ARTESIA

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(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 4-17-98

APPROVED BY: _____ TITLE: _____ DATE: 4/20/98

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

April 9, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

Enclosed you will find the analysis and Certificate of Waste Status for 45 yards of hydrocarbon contaminated soil generated at Navajo's Artesia plant. This dirt was the result of spill clean ups from various places around the plant such as the VGO rack, diesel loading rack, and asphalt loading rack.

I would also like to get 15 super sacks of FCC cat fines and 15 fifty-five gallon drums of asphalt sample cans approved into your landfill. These wastes have been approved in the past, and since process has not changed, only a Certificate of Waste Status is enclosed.

The above wastes will be transferred into 15 yard roll off bins before a truck from Lea Land can haul them to your facility.

If you have any questions, please call me at (505) 748-3311. Thank you for your time in this matter.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

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OCD

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - HYDROCARBON CONTAM. SOIL

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

Title/Agency ENV. SPEC.

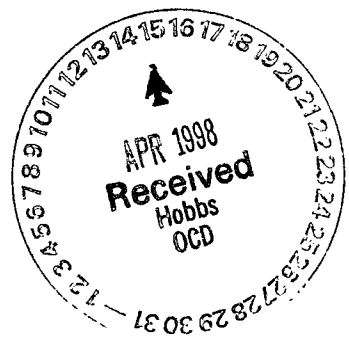
Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 4/9/98

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TRACEANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

April 3, 1998
Receiving Date: 03/20/98
Sample Type: Soil
Project No: NA
Project Location: NA

Extraction Date: 03/24/98
Analysis Date: 03/26/98
Sampling Date: 03/19/98
Sample Condition: Intact & Cool
Sample Received by: WW
Project Name: NA

TA #: T94103/881016
FIELD CODE: Hydrocarbon Contam. Soil

TCLP VOLATILES	EPA LIMIT	Reporting Limit	Concentration (mg/L)	QC	RPD	%EA	%IA
Vinyl Chloride	0.20	0.001	ND	112	5	117	112
1,1-Dichloroethene	0.70	0.001	ND	111	3	92	111
Methyl Ethyl Ketone	200.0	0.010	ND	81	5	103	81
Chloroform	6.0	0.001	ND	87	2	105	87
1,2 Dichloroethane	0.50	0.001	ND	82	1	108	82
Benzene	0.50	0.001	ND	104	2	104	104
Carbon Tetrachloride	0.50	0.001	ND	86	6	109	86
Trichloroethene	0.5	0.001	ND	93	5	110	93
Tetrachloroethene	0.7	0.001	ND	106	3	113	106
Chlorobenzene	100.0	0.001	ND	96	4	107	96
1,4-Dichlorobenzene	7.5	0.001	0.07	95	4	108	95

SURROGATES	% RECOVERY
Dibromofluoromethane	99
Toluene-d8	93
4-Bromofluorobenzene	102

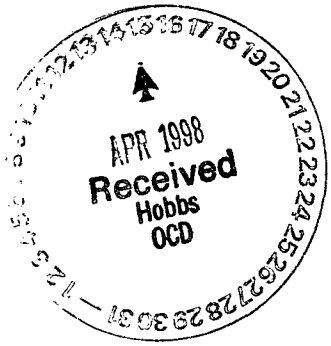
ND = NOT DETECTED

METHODS: EPA SW 846-1311, 8260
CHEMIST: AG

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Director, Dr. Blair Leftwich

4-3-98
Date


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E Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

April 3, 1998
Receiving Date: 03/20/98
Sample Type: Soil
Project No. NA
Project Location: NA

Extraction Date: 03/25/98
Analysis Date: 03/26/98
Sampling Date: 03/19/98
Sample Condition: Intact & Cool
Sample Received by: WW
Project Name: NA

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T94103/981016 Hydrocarbon Contam. Soil	oc	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	78	40*	2	98
1,4-Dichlorobenzene	7.5	0.05	ND	85	15	67	106
o-Cresol	200.0	0.05	ND	88	14	59	110
m,p-Cresol	200.0	0.05	ND	92	13	107	115
Hexachloroethane	3.0	0.05	ND	86	17	61	108
Nitrobenzene	2.0	0.05	ND	84	9	75	105
Hexachlorobutadiene	0.5	0.05	ND	82	12	65	103
2,4,6-Trichlorophenol	2.0	0.05	ND	85	9	76	106
2,4,5-Trichlorophenol	400.0	0.05	ND	84	18	67	105
2,4-Dinitrotoluene	0.13	0.05	ND	75	11	74	94
2,4-D	10.0	0.05	ND	85	16	73	106
Hexachlorobenzene	0.13	0.05	ND	67	11	54	84
2,4,5-TP	1.0	0.05	ND	68	9	52	85
Pentachlorophenol	100.0	0.05	ND	64	18	35	90

*NOTE: RPD out of standard range.

Surrogates	% RECOVERY
2-Fluorophenol	51
Phenol-d6	32
Nitrobenzene-d5	78
2-Fluorobiphenyl	32
2,4,6-Tribromophenol	82
Terphenyl-d14	92

Methods: EPA SW 846-1311, 8270.
CHEMIST: MB
ND - Not Detected



Director, Dr. Blair Leftwich

DATE


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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL REPORT

CLIENT NAVAJO REFINING COMPANY
501 E. MAIN
ARTESIA, NM 88211

SAMPLE NO. : 981016
INVOICE NO.: 22101837
REPORT DATE: 03-31-98
REVIEWED BY: [illegible]
PAGE : 1 OF 1

CLIENT SAMPLE ID : Hydrocarbon contam. Soil
SAMPLE TYPE .....: Soil
SAMPLED BY .....: B Madrid
SUBMITTED BY ....: B Madrid
SAMPLE SOURCE ...: --

AUTHORIZED BY : B. MADRID
CLIENT P.O. : --
SAMPLE DATE ...: 03-19-98
SUBMITTAL DATE : 03-20-98
EXTRACTION DATE: --

TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date	Test Method	Analyst
Arsenic (TCLP)	<0.050	mg/L	0.050	03-26-98	SW846 7061	N. Munir
Barium (TCLP)	<5.0	mg/L	5.0	03-25-98	SW846 7080A	N. Munir
Cadmium (TCLP)	<0.25	mg/L	0.25	03-23-98	SW846 7130	N. Munir
Chromium (TCLP)	<0.50	mg/L	0.50	03-23-98	SW846 7190	N. Munir
Lead (TCLP)	1.4	mg/L	0.75	03-25-98	SW846 7420	N. Munir
Mercury (TCLP)	<0.010	mg/L	0.010	03-24-98	SW846 7471A	N. Munir
Selenium (TCLP)	0.053	mg/L	0.050	03-26-98	SW846 7741A	N. Munir
Silver (TCLP)	<0.25	mg/L	0.25	03-25-98	SW846 7760A	N. Munir

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(1) Copy to Client

ANALYTICAL RESULTS REPORTED HEREIN APPLY ONLY TO THE SAMPLE(S) TESTED. FURTHERMORE, THIS REPORT CAN ONLY BE COPIED IN ITS ENTIRETY

MANAGING DIRECTOR

04/07/98 09:25 FAX 008


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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

April 3, 1998
Receiving Date: 03/20/98
Sample Type: Solids
Project No: NA
Project Location: NA

Extraction Date: 03/27/98
Analysis Date: 03/27/98
Sampling Date: 03/19/98
Sample Condition: Intact & Cool
Sample Received by: WW
Project Name: NA

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY (mm/y)	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.	—
T94103/981015	Activated Alumnia	Non-reactive	<10	<2.5	Non-corrosive	4.0	Non-ignitable
T94103/981016	Hydrocarbon Contam.Soil	Non-reactive	<10	<2.5	Non-corrosive	7.2	Non-ignitable
CC	Quality Control	—	—	—	—	7.0	—
RPD		0	0	0	0	0	0
% Extraction Accuracy		—	—	—	—	—	—
% Instrument Accuracy		—	—	—	—	100	—

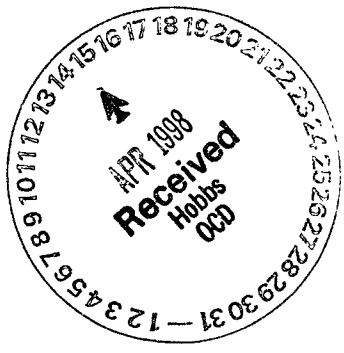
METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

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Director, Dr. Blair Leftwich

4-3-98
DATE

Sent By: TRACEANALYSIS; At: 19155854944 8067941296; 06 Apr 98 12:43PM;Job 828;Page 1/5
To: TRACEANALYSIS EP
04/07/98 09:25 FAX 009


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TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: NAVAJO REFINING CO. Phone #:

Address: 501 E. MAIN Fax #:

Contact Person: BRYAN MADRID

Invoice to: (If different from above)

Project #: Project Name:

Project Location: Sampler Signature: Bryan Madrid

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	CARRIER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
98015	ACTIVATED ALUMNIA	1	1L					X				X	3/19/98	11:00
V 1016	HYDROCARBON CONTAM. SOIL	1	1L		X							X	3/19/98	11:15

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC-MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH					Turn Around Time if different from standard	Hold
					X	X	X	X											
					X	X	X	X											

Received by OCD: 12345678 — 12 23 24 25 26 27 28 29 30 31 — APR 1998 — Hobbs

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Bryan Madrid	3/19/98	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				3/20/98	10:00

LAB USE ONLY

Intact - Y / N

Headspace Y / N

Temp 4 °C

Log-In Review

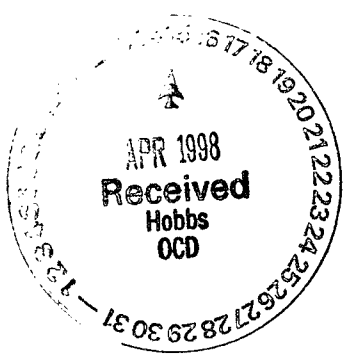
REMARKS:

Carrier # FED-EX 357 9264 306

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

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04-009

APR 1998 Received Hobbs OCD

Estimated Volume 15 55 gallon drums cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Environmental Compliance Manager DATE: 04/14/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 4-17-98

APPROVED BY: _____ TITLE: Env Geologist DATE: 4/23/98

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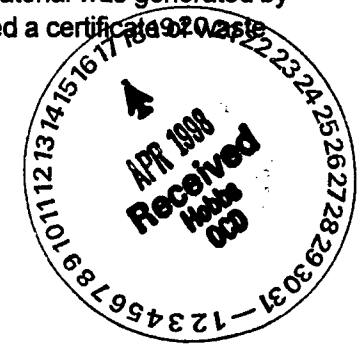
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SIGNATURE: Billie Charo TITLE: Environmental Compliance Manager DATE: 04/14/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 4-17-98

APPROVED BY: _____ TITLE: _____ DATE: _____

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

April 9, 1998

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CRI Inc.
P.O. Box 369
Hobbs, NM 88241

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I would also like to get 15 super sacks of FCC cat fines and 15 fifty-five gallon drums of asphalt sample cans approved into your landfill. These wastes have been approved in the past, and since process has not changed, only a Certificate of Waste Status is enclosed.

The above wastes will be transferred into 15 yard roll off bins before a truck from Lea Land can haul them to your facility.

If you have any questions, please call me at (505) 748-3311. Thank you for your time in this matter.

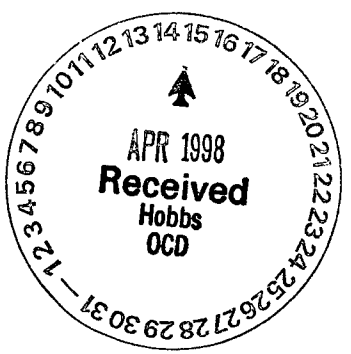
Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.




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CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - ASPHALT SAMPLE CANS

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

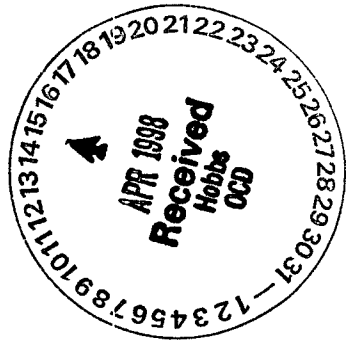
Title/Agency ENV. SPEC.

Address 501 E. MAIN

ARTESIA, NM 88210

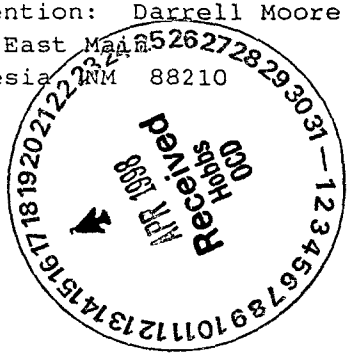
Signature Bryan Madrid

Date 4/9/98


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TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210



September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

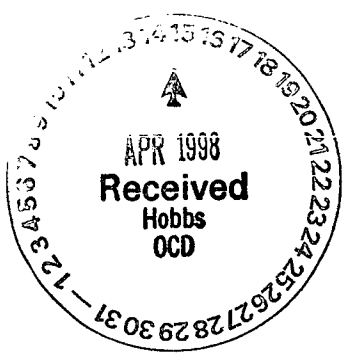
Prep Date: 08/31/95
Analysis Date: 09/06/95
Sampling Date: 08/18/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY FLASHPOINT (°F)
T40096	Ceramic Saddles & Balls	Non-reactive	<10.0	<2.5	Non-corrosive	7.32	Nonignitabl
T40098	Activated Alumina	Non-reactive	<10.0	<2.5	Non-corrosive	7.50	Nonignitabl
T40099	Asphalt	Non-reactive	<10.0	<2.5	Non-corrosive	7.06	>150
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	--	---	---	---
% Instrument Accuracy		---	---	--	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 1010.

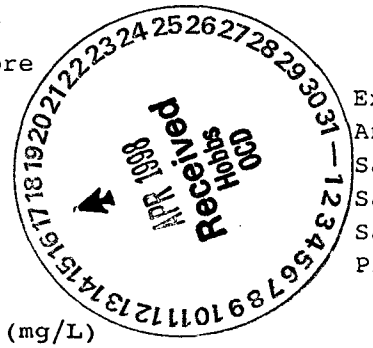
Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
DATE


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TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 East Main
Artesia, NM 88210



September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/22/95
Analysis Date: 08/29/95
Sampling Date: 08/18/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

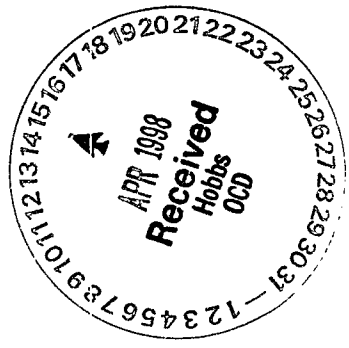
TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ba	Ag	Hg
	EPA LIMIT =	5.0	1.0	5.0	1.0	5.0	100.0	5.0	0.20
T40096	Ceramic Saddles & Balls	<0.1	0.6	<0.1	<0.1	<0.1	<1.0	0.01	<0.01
T40098	Activated Alumina	0.4	0.3	<0.1	<0.1	<0.1	<1.0	0.02	<0.01
T40099	Asphalt	<0.1	0.3	<0.1	<0.1	0.2	<1.0	<0.01	<0.01
QC	Quality Control	2.0	2.23	1.94	2.03	1.94	1.95	0.96	0.052
Reporting Limit		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.01
RPD		4	2	2	2	4	8	12	0
% Extraction Accuracy		89	83	88	89	77	94	84	102
% Instrument Accuracy		100	111	97	102	97	97	96	105

METHODS: EPA SW 846-1311, 6010, 7471.
TCLP METALS SPIKE: 4.0 mg/L As, Se, Cr, Cd, Pb, Ba, 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 2.0 mg/L As, Se, Cr, Cd, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
Date


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6761 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

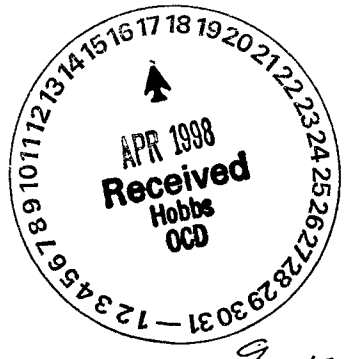
Extraction Date: 08/21/95
Analysis Date: 08/22/95
Sampling Date: 08/18/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T40099 Asphalt	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	57	10	128	114
1,1-Dichloroethene	0.70	0.05	ND	59	3	119	118
Methyl Ethyl Ketone	200.0	0.5	ND	51	6	105	102
Chloroform	6.00	0.05	ND	58	1	118	116
1,2-Dichloroethane	0.50	0.05	ND	55	1	112	110
Benzene	0.50	0.05	ND	57	1	108	114
Carbon Tetrachloride	0.50	0.05	ND	58	3	115	116
Trichloroethene	0.50	0.05	ND	54	1	102	108
Tetrachloroethene	0.70	0.05	ND	55	2	102	110
Chlorobenzene	100.00	0.05	ND	54	0	104	108
1,4-Dichlorobenzene	7.50	0.05	ND	54	0	104	108

SURROGATES	% Recovery
Dibromofluoromethane	107
Toluene-d8	100
4-Bromofluorobenzene	97

ND = Not Detected

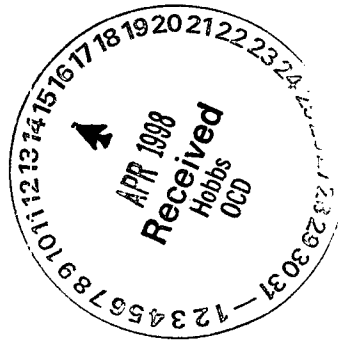
METHODS: EPA SW 846-1311, 8240.



9-12-95

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

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806•794•1296
FAX 806•794•1298

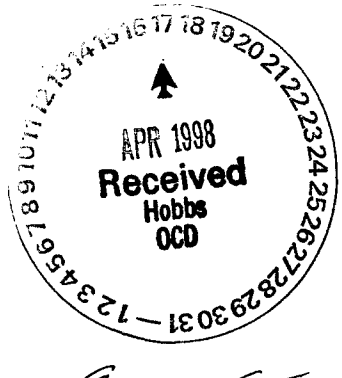
ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/30/95
Analysis Date: 09/02/95
Sampling Date: 08/18/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T40099 Asphalt	QC	%IA
Pyridine	5.0	0.05	ND	83	104
1,4-Dichlorobenzene	7.5	0.05	ND	81	101
o-Cresol	200.0	0.05	ND	81	101
m,p-Cresol	200.0	0.05	ND	157	98
Total Cresol	200.0	0.05	ND	---	---
Hexachloroethane	3.0	0.05	ND	87	109
Nitrobenzene	2.0	0.05	ND	81	101
Hexachlorobutadiene	0.5	0.05	ND	87	109
2,4,6-Trichlorophenol	2.0	0.05	ND	81	101
2,4,5-Trichlorophenol	400.0	0.05	ND	87	109
2,4-Dinitrotoluene	0.13	0.05	ND	80	100
2,4-D	10.0	0.05	ND	84	105
Hexachlorobenzene	0.13	0.05	ND	78	98
2,4,5-TP	1.0	0.05	ND	101	126
Pentachlorophenol	100.0	0.05	ND	91	114
Lindane	0.4	0.001	ND	80	100
Total Heptachlor	0.008	0.001	ND	---	---
Endrin	0.02	0.001	ND	62	78
Methoxychlor	10.0	0.001	ND	68	85
Chlordane	0.03	0.005	ND	---	---
Toxaphene	0.5	0.1	ND	---	---

Surrogates	% RECOVERY
2-Fluorophenol	76
Phenol-d6	77
Nitrobenzene-d5	71
2-Fluorobiphenyl	73
2,4,6-Tribromophenol	64
Terphenyl-d14	68

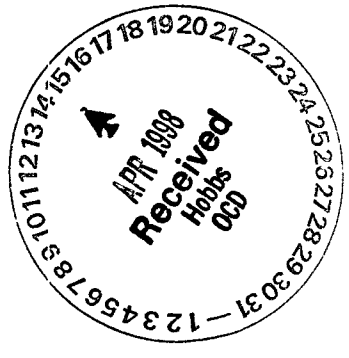


Methods: EPA SW 846-1311, 8270, 8080.
ND - Not Detected

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
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A Laboratory for Advanced Environmental Research and Analysis


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NAVAJO REFINING COMPANY
P. O. BOX 159
ARTESIA, NM 88211-0159
(505) 748-3311, (505) 365-8364, (505) 365-8365 (24 Hours)

MATERIAL SAFETY DATA SHEET

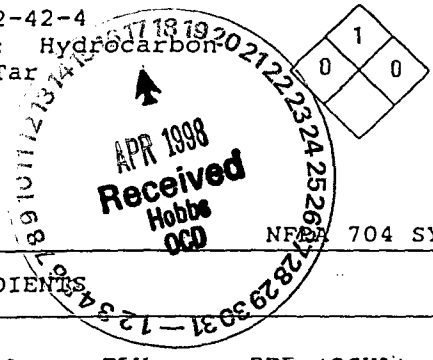
EMERGENCY PHONE NUMBERS:

CHEMTREC: 1-800-424-9300 (for fire, spill and emergency response information)
NEW MEXICO POISON INFORMATION CENTER: 1-800-432-6866 (for poisoning)
TEXAS (EL PASO) POISON INFORMATION CENTER: (915) 533-1244 (for poisoning)
ARIZONA POISON INFORMATION CENTER: 1-800-362-0101 or (602) 253-3334 (for poisoning)

ASPHALT, PENETRATION GRADE

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: ASPHALT, PENETRATION GRADE CAS NUMBER: 8042-42-4
FORMULA: N.A. CHEMICAL FAMILY: Hydrocarbon
SYNONYMS: Petroleum Pitch, 60-70, 85-100, 120-150, Road Tar



NFPA 704 SYMBOL

SECTION 2 - HAZARDOUS INGREDIENTS

AZARDOUS COMPONENTS	CAS NO.	VOL%	TLV	PEL (OSHA)
ASPHALT (containing)	8042-42-4	100	N.A.	N.A.
Hydrogen Sulfide	7783-06-4	<0.1	10 ppm	10 ppm

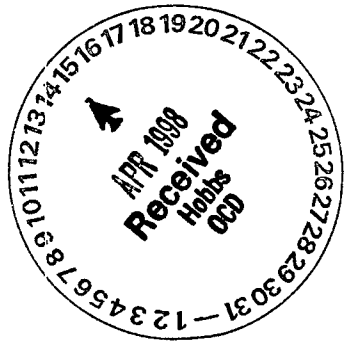
OTHER INGREDIENT INFORMATION:
Asphalt is a complex mixture of paraffinic, aromatic, and naphthenic hydrocarbons. At high temperatures, petroleum asphalt fumes (CAS No. 8052-42-4) may be present. The exposure limit for these fumes is 5 mg/m^3.

SECTION 3 - PHYSICAL DATA

BOILING POINT: >700°F
VAPOR PRESSURE: N.A.
VAPOR DENSITY (AIR=1): N.A.
SOLUBILITY IN WATER: Insoluble
ODOR THRESHOLD: N.A.
SPECIFIC GRAVITY (WATER=1): 1.0-1.1
% VOLATILE BY VOLUME: 0%
EVAPORATION RATE: N.A.
AUTOIGNITION TEMP: 400-700°F
APPEARANCE AND ODOR: Black solid at room temperature with no appreciable odor. Liquid at elevated temperatures with tar like odor.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

CLASSIFICATION: CLASS IIIB, COMBUSTIBLE LIQUID
FLASH POINT: >400°F (COC)
FLAMMABLE LIMITS: LEL = N.A. UEL = N.A.
EXTINGUISHING MEDIA: Dry chemical, CO_2.
SPECIAL FIRE FIGHTING PROCEDURES: Move container from fire area if possible. Use water to keep fire exposed containers cool.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Evacuate a radius of 1500 feet for uncontrolled fires. Water for foam may cause frothing and evolution of steam. Fumes may accumulate from low boiling hydrocarbons and hydrogen sulfide. Iron sulfide may also accumulate.
NFPA FIRE = 1 (low)


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SECTION 5 - REACTIVITY DATA

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID/INCOMPATABILITY: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and sulfur dioxide.

NFPA REACTIVITY = 0 (minimal)

SECTION 6 - HEALTH HAZARD DATA

ROUTES OF ENTRY: At room temperature asphalt is a solid. At elevated temperatures there may be inhalation of fumes or skin contact.

HEALTH HAZARDS: Dermititis, eye, skin or lung irritation. Hot asphalt can cause severe burns. Possibility of skin cancer.

CARCINOGENICITY: Asphalt is not listed by NTP or IARC.

SIGNS AND SYMPTOMS OF EXPOSURE: Skin irritation, irritation of nose and throat, burns from contact with hot asphalt.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Maintain respirations, assist with artificial respiration if needed and give oxygen if available and trained to do so. Seek medical attention.

BURNS: Immediately cool skin by quenching with cold water. Cover with sterile dressing and seek medical assistance.

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NFPA HEALTH = 0 (minimal)

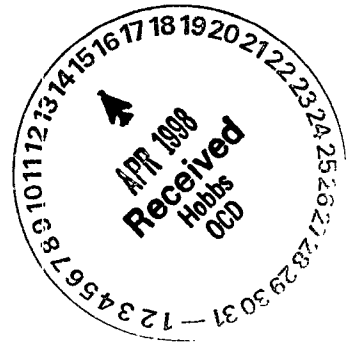
SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spill. Allow to cool. Remove sources of ignition. Pick up with shovels ;or tractors. Place in appropriate waste containers.

WASTE DISPOSAL: Dispose in accordance with RCRA regulations. Do not put in sewers or any water course.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Asphalt is normally stored at high temperatures. It can cause severe burns.

OTHER PRECAUTIONS: Avoid breathing vapors. Always wear protective equipment and clothing when handling hot asphalt. Do not weld on containers unless they have been properly cleaned and purged using safe work practices.


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SECTION 8 - ENVIRONMENTAL AND SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH\MSHA approved respiratory protection in areas exceeding exposure limits, the type to be determined by the degree of exposure.

VENTILATION: Use in well ventilated area. Mechanical exhaust should be explosion proof.

EYE/SKIN PROTECTION: Full face protection, heavy leather gloves, coveralls with long sleeves.

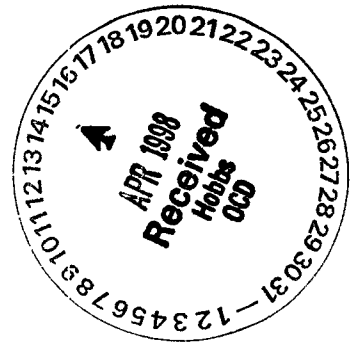
WORK/HYGIENIC PRACTICES: Remove contaminated clothing as soon as possible. Always wash after handling hazardous chemicals.

NOTICE: This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

REFER TO DEPARTMENT OF TRANSPORTATION (DOT) EMERGENCY RESPONSE GUIDEBOOK GUIDE 27 FOR ADDITIONAL EMERGENCY INFORMATION.



This information is believed to be accurate and as reliable as information available to us. We make no warranty or guarantee as to its accuracy and assume no liability from its use. Users should determine the suitability of the information for their particular purposes.


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TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298

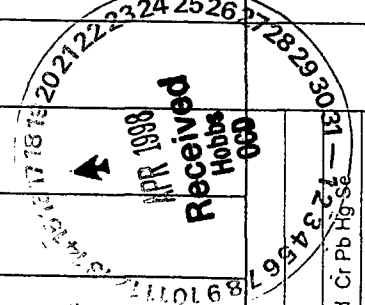
CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #:
FAX #:

Company Name & Address: Navajo Refining Co.

Project #:
Project Name :

Project Location: Artesia & Lovington N. Mex.
Sampler Signature: Darrell Moore



LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI
~~40094~~	COP-95 Catalyst	1						X						8/14/95	13:30			X	~~X~~	X	X		X
96 40095	Ceramic Saddle Balls	1						X						" "	13:45			X		X	X		X
~~96~~	HDS Catalyst	1						X						" "	14:00			X		X	X		X
98 ~~97~~	Activated Alumina	1						X						" "	14:15			X		X	X		X
99 ~~98~~	Asphalt	1						X						" "	14:30			X		X	X		X

SPECIAL HANDLING	
Turn around # of days	
Fax ASAP	
Report TWC direct	
Hold	X

Relinquished by: Darrell Moore	Date: 8/18/95	Times: 16:30	Received by:
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date: 8-21-95	Times:	Received by Laboratory: MS CT

REMARKS

233AB

233AB


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NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
DISTRICT I Hobbs
PO BOX 1980
Hobbs, NM 88241-1981
(505) 393-6161

Jennifer A. Salisbury
CABINET SECRETARY

RECEIVED
MAY 11 1998
Environmental Bureau
Oil Conservation Division

May 8, 1998

Mr. Darrell Moore
Navajo Refining Company
P.O. Box 159
Artesia, NM 88211-0159

Mr. Ken Marsh
P.O. Box 369
Hobbs, NM 88241

Re: C-138 Request dated 4/30/98; Sewer Inserts.

Dear Mr. Moore and Mr. Marsh:

New Mexico Oil Conservation Division (NMOCD) is in receipt of your request to dispose of waste solids generated in the sewer inserts which is an integral part i.e. constructed inside, of your Artesia's Refinery wastewater collection systems. After several hours of research I cannot find any clear-cut Regulatory Interpretation Memo "RIM" concerning this specific issue. **Therefore the NMOCD cannot approve of this waste stream at this time.**

After checking with Mr. John Tymkowych, Program Manager of the New Mexico Hazardous & Radioactive Material Bureau (NMHRMB) it appears the approval of this waste being classified other than a F037 RCRA "listed waste" will have to be presented by the generator to the NMHRMB for their approval. Please call Mr. Tymkowych at 505-827-1508.

Once the NMHRMB approves please provide NMOCD written correspondence from NMHRMB, then we can process your C-138 in the normal manner with the usual acceptable documentation.

The NMOCD has reviewed your request and feels this waste stream if generated in a manner that isolates it from the normal F037 wastewater stream and does not contain chemical constituents that originally caused the wastewater to be classified as F037, then it should not be classified as F037, but will still be required to pass the hazardous characteristics test. This scenario was presented to the EPA RCRA Hot Line on May 7, 1998 with the same conclusion as above, however was disclaimed as not being an official or legal opinion.

The NMOCD also agrees this will assist in reducing your hazardous waste as required under RCRA's waste minimization program, enhance your NMOCD discharge plan requirements by reducing the overall environmental impact of your operations, and of course be more cost effective for Industry.

If you require any further information or assistance please do not hesitate to call (505-393-6161) or write this office.

Sincerely Yours,

Wayne Price

Wayne Price-Environmental Engineer

cc: Chris Williams-NMOCD District I Supervisor
Tim Gumm-NMOCD District II Supervisor
Roger Anderson-Environmental Bureau Chief, Santa Fe, NM
Martyne Kieling-Environmental Bureau, Santa Fe, NM
John Tymkowych-NMHRMB Santa Fe, NM

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

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

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APR 23 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from the Navajo Refining Artesia facility. These are fine particles of regenerated catalyst that are collected from the cyclones at the FCC unit. The catalyst is regenerated using hot air to burn carbon dioxide off of the material. The air is then removed using teritary cyclones and the smaller particles of catalyst come out with the air. They are generated by the breaking up of the larger particles of catatlyst. I have included a certificate of waste and a chain of custody.

04-008

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Printed in Hobbs 4/23/98

Estimated Volume 15 super sacs cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

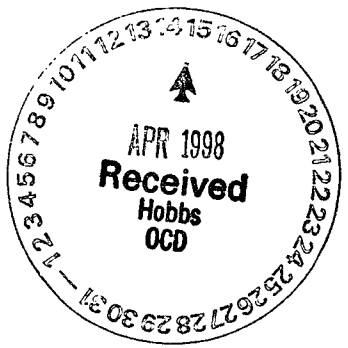
SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Environmental Compliance Manager DATE: 04/14/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 4-17-98

APPROVED BY: _____ TITLE: Env Geologist DATE: 4/23/98


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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
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1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
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The following information is from the Navajo Refining Artesia facility. These are fine particles of regenerated catalyst that are collected from the cyclones at the FCC unit. The catalyst is regenerated using hot air to bum carbon dioxide off of the material. The air is then removed using teritary cyclones and the smaller particles of catalyst come out with the air. They are generated by the breaking up of the larger particles of catatlyst. I have included a certificate of waste and a chain of custody.

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Estimated Volume 15 super sacs cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Environmental Compliance Manager DATE: 04/14/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR Tech DATE: 4-17-98

APPROVED BY: _____ TITLE: _____ DATE: _____

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

April 9, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

Enclosed you will find the analysis and Certificate of Waste Status for 45 yards of hydrocarbon contaminated soil generated at Navajo's Artesia plant. This dirt was the result of spill clean ups from various places around the plant such as the VGO rack, diesel loading rack, and asphalt loading rack.

I would also like to get 15 super sacks of FCC cat fines and 15 fifty-five gallon drums of asphalt sample cans approved into your landfill. These wastes have been approved in the past, and since process has not changed, only a Certificate of Waste Status is enclosed.

The above wastes will be transferred into 15 yard roll off bins before a truck from Lea Land can haul them to your facility.

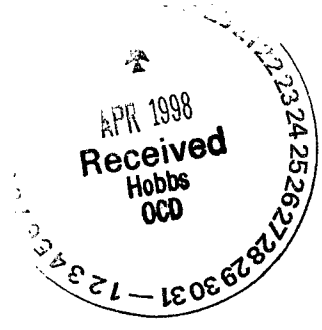
If you have any questions, please call me at (505) 748-3311. Thank you for your time in this matter.

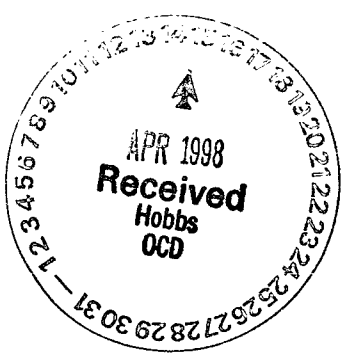
Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.




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CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - FCC CAT FINES

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

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Name BRYAN MADRID

Title/Agency ENV. SPEC.

Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 4/9/98

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GRACE

Davison Chemical Division
W. R. Grace & Co.
P. O. Box 2117
Baltimore, Maryland 21203
(301) 659-9000

MATERIAL SAFETY DATA SHEET

SAFETY DATA

Zeolitic, Non-Promoted Grades

PRODUCT: _____

April 15, 1991

DATE: _____

Emergency Contact:

J.H. Convey, Manager, Environmental Control Telephone No. (Home) 301-874-2009 (Office) 301-659-9058

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the ultimate user who may come in contact with the material.

TRADE NAME: DAVISON FLUID CRACKING CATALYST, Zeolitic, Non-Promoted Grades (See attachment for specific grades)

CHEMICAL NAME & FAMILY: Silica Alumina (Zeolitic) Catalyst

SYNONYMS: Zeolitic Silica, Alumina Catalyst, Ge[illegible]Catalyst

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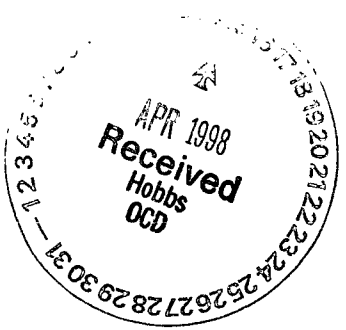
CHEMICAL NOTATION OR STRUCTURE: $xSiO_2 . yAl_2O_3 . zH_2O . mNa_2O . nRE_2O_3$

INGREDIENTS:	SiO_2 ** Silica (Synthetic)	Al_2O_3 Alumina	SiO_2 Silica Gel	Quartz	SO_4 Sulfate	RE_2O_3 Rare Earths	TiO_2 Titania	Na_2O Sodium Oxide	H_2O Water
OSHA: PEL mg/m³ total	6	10	6	0.1	n.l.	n.l.	n.l.	n.l.	n.l.
respirable		5		n.l.					
ACGIH: TLV mg/m³ total	10	10	10	n.l.	n.l.	n.l.	10	n.l.	n.l.
respirable				0.1					
CAS REGISTRY NO:	7631-86-9	1344-28-1	63231-67-4(old) 112926-00-8(new)	60676-86-0	n.l.	68188-83-0	13463-67-7	1313-59-3	7732-18-5
	VV7322000	BK1200000	VV7310000	n.l.	n.l.	VV7328000	XR2275000	WC4800000	n.l.

RTECS NO: n.l. = not listed ** Should not be confused with quartz, cristobalite, or tridymite.

TSCA: EPA has defined zeolites as complex chemical products consisting of silica (SiO_2) and alumina (Al_2O_3), in various proportions plus metallic oxides and certain cations. For purposes of TSCA, zeolites are statutory mixtures.

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the


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PRECAUTIONS IN USE:

Prevent dusty conditions that would cause personnel to be exposed to high concentrations of dust.

Workplace dust levels should be kept below the OSHA PEL's and ACGIH TLV's given in Ingredients, page 1. If concentrations exceed these levels, a properly fitted, NIOSH approved, respirator and goggles should be worn.

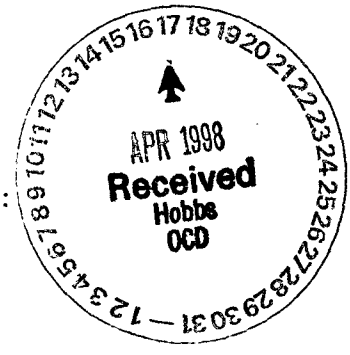
Prolonged contact with catalyst dust may cause drying irritation of the skin. Longsleeve shirt and gloves with tight fitting wristlets should be used to reduce skin exposure. See SPECIAL INFORMATION, page 4.

FIRST AID:

EYES: Immediately wash the eyes with large amounts of water, occasionally lifting upper & lower lids. If irritation occurs and persists, seek medical attention.
SKIN: Wash area with soap and water. Personnel should shower after handling this material if frequent contact with dust is experienced.
INHALATION: If inhalation causes irritation or discomfort, remove person from exposure and seek medical help if symptoms do not disappear.
INGESTION: If ingested, drink 2 glasses of water and consult a physician.

TOXICOLOGY

ANIMAL TOXICOLOGY



TESTS FOR DOT HAZARD CLASSIFICATION:

Not classified as a hazardous material.
Test results for a similar Davison Fluid Cracking Catalyst were:

- 48-hour oral LD_{50} (rat): greater than 31,600 mg/kg
- 48-hour dermal LD_{50} (rabbit): greater than 2,000 mg/kg

Not considered an ocular irritant.

TESTS FOR FDA APPROVAL FOR USE IN FOODS: Not a food-grade product.

HUMAN TOXICOLOGY: No known hazards in normal usage. With regard to employee exposure to FCC dust, there has been no indication of an incidence of lung problems higher than the background for the population-at-large for employees in our FCC production facilities. Davison has produced Amorphous Grades since 1942, Zeolitic, Non-Promoted Grades since 1964, and Zeolitic Promoted Grades since 1977. The maximum concentration of quartz for all grades is 1.0%. Quartz has been classified by IARC as a Class 2A Carcinogen. Quartz can cause silicosis or other fibrotic lung disease with prolonged exposure. The primary route of entry is inhalation.


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ENVIRONMENTAL DATA

Product is not known to have any adverse effect on the aquatic environment. However, waste or contaminated material should be placed where it can not be washed into streams or waterways. See SPECIAL INFORMATION, page 4.

TYPICAL CHEMICAL & PHYSICAL INFORMATION

APPEARANCE: Off-white fine powder (microspheroides)

pH IN 5% SLURRY: 3-6

ODOR: None

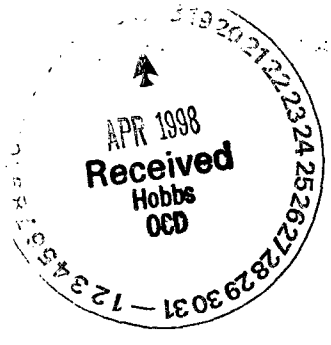
SPECIFIC GRAVITY: Approximately 2.1

BULK DENSITY: .45 grams/cc to 1.00 grams/cc depending on grade.

SOLUBILITY IN WATER: Nil.

APPROXIMATE ANALYSIS:

		Wt.%
Alumina	Al_2O_3	20-60
Silica	SiO_2	40-80
Rare Earths	RE_2O_3	0-10
Sulfate	SO_4	0.1-2.5
Sodium Oxide	Na_2O	0-1.0
Titania	TiO_2	0-1.0
Total Volatiles		2-16
Quartz	SiO_2 max.	1.0



STABILITY: Stable

REACTIVITY: Reacts with HF, otherwise inert.

FIRE & EXPLOSION DATA: Non-flammable, will not explode.


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REGULATORY STATUS

OSHA— See Ingredients, page 1.

NIOSH— FCC's have not been included on the list of substances requiring toxicity studies.

EPA— This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under § 313 of Title III SARA.

ACGIH— See Ingredients, page 1.

USDA— Not applicable.

FDA— Not applicable.

DOT— Not classified as a hazardous material.



HANDLING INFORMATION

STORAGE AND TRANSPORTATION: No special requirements.

DISPOSAL: Fresh catalyst is non-hazardous. Landfill in accordance with state, local and federal regulations. Cover disposed material promptly to avoid dusty conditions. See SPECIAL INFORMATION, below.

SPILLAGE AND CLEANUP: Fresh Catalyst should be swept up or washed to a sewer system that is treated to remove solids.

CONTAINERS: Drums, bins, truck hoppers or hopper cars depending on requirements. Follow standard operating procedure when using pneumatic transfer into process.

SPECIAL INFORMATION

This Material Safety Data Sheet provides information applicable to the catalyst as shipped. Safe handling and proper disposal of spent catalyst may require special precautions and additional requirements due to the presence of heavy metals picked up in the FCC unit. Contact the Davison representatives if you desire such information.

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the use and conditions of use of this information and the material described herein are not within the control of Grace, Grace assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Grace's Terms and Conditions of Sale, including those limiting warranties and remedies.

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Hobbs
OCD

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

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

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MAY 22 1998
Environmental Bureau
Oil Conservation Division

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Originated 8/8/

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Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ — 2/ PRICE 5/18/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator Navajo Refining
	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

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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.

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is for the Navajo Refining Artesia facility. Navajo would like to use process knowledge to get their sandblasting material approved for shipment to our facility. I have included a certificate of waste and MSDS sheets.

05-003

MAY RECEIVED Hobbs OCD

Estimated Volume 30 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 05/14/98

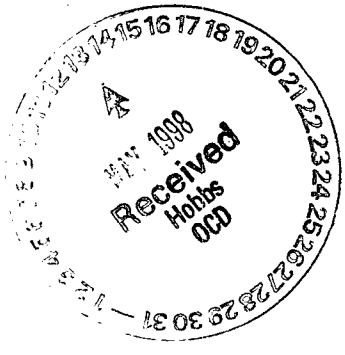
TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 5/18/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 5/22/98




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OCD

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

May 8, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get approximately 30 yards of blast sand generated at Navajo's Artesia plant profiled into your facility. This sand resulted from the blasting of a new tank to remove scale and rust in preparation for painting. Since this is a new tank and has never been in service, I feel through process knowledge that this waste is non hazardous. When approved, a truck from Lea Land will haul this material to your landfill. I have also enclosed a Certificate of Waste Status for this media.

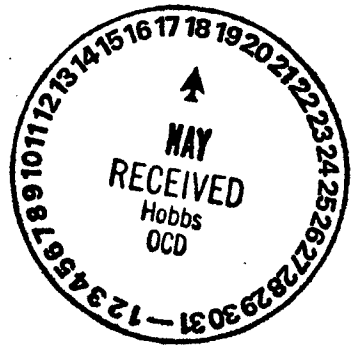
If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

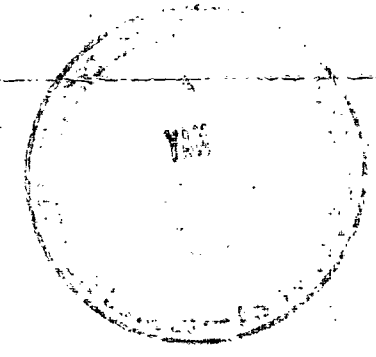
Sincerely,

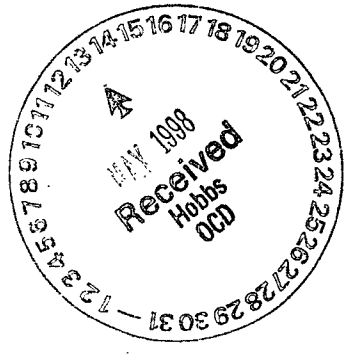
Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.






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Hobbs
OCD

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - BLAST SAND

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

Title/Agency ENV. SPEC.

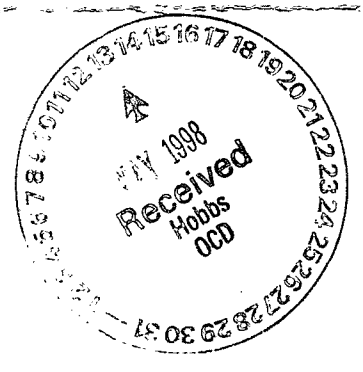
Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 5/8/98

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MATERIAL SAFETY DATA SHEET

IDENTITY: Crystalline Silica (Quartz) **Date Prepared: July 1997**

SECTION I

TEXAS MINING, LP dba
OGLEBAY NORTON INDUSTRIAL SANDS
1000 Oglebay Norton Drive
P.O. Box 429
Brady, Texas 76825

Emergency Telephone Number
800-858-4123
Telephone Number for Information
915-597-0721

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Hazardous Components: Silica, Crystalline Quartz (respirable)

Specific Chemical Identity: Silicon Dioxide SiO_2 (CAS 14808-60-7)

Common Names: Silica, Flint, Sand, Crystalline Silica, Crystalline Free Silica, Quartz, Ground Silica, trade names (see Page 4)

OSHA PEL: Exposure to airborne crystalline silica shall not exceed an 8-hour time-weighted average limit as stated in the 1996 29 CFR §1910.1000 Table Z-3 for Mineral Dusts, Specifically "Silica: Crystalline: Quartz(respirable)."

	Mppcf	Mg/M^3
Crystalline Quartz (Respirable)	$\frac{250}{\%SiO_2+5}$	$\frac{10\ mg/M^3}{\%SiO_2+2}$
Quartz (Total Dust)		$\frac{30\ mg/M^3}{\%SiO_2+2}$

Other Limits Recommended:

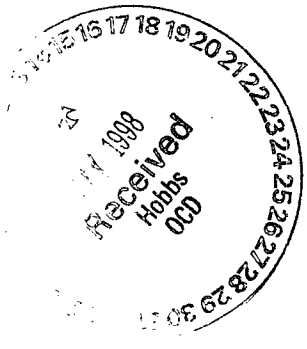
a) **ACGIH TLV:** Crystalline Quartz **TLV-TWA = 0.1 mg/M^3** (Respirable Dust)
See Documentation of the Threshold Limit Values and Biological Exposure Indices, ACGIH, Sixth Edition, 1991

b) **NIOSH:** National Institute for Occupational Safety and Health. Recommended standard maximum permissible concentration = $0.05mg/M^3$ (respirable free silica) as determined by a full shift sample up to 10-hour working day, 40-hour work week. See NIOSH criteria for a Recommended Standard Occupational Exposure to Crystalline Silica.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point:	4046°F	**Specific Gravity (H_2O=1):**	2.65
Vapor Pressure (mm Hg.):	None	**Melting Point:**	3050°F
Vapor Density (Air=1):	None	**Evap. Rate** (Butyl Acet=1)	none
Solubility in Water:	Insoluble in water		
Appearance and Odor:	White to tan sand, granular, crushed, or ground No odor or taste.		




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SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: Non-flammable
Flammable Limits: None **LEL:** None **UEL:** None
Extinguishing Media: None required
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: None

SECTION V - REACTIVITY DATA

Stability: Stable **Conditions to avoid:** None

Incompatibility: Avoid contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, manganese trioxide, and oxygen difluoride may cause fires.

Hazardous Decomposition or Byproducts: Silica will dissolve in Hydrofluoric Acid and produce a corrosive gas - silicon tetrafluoride.

Hazardous Polymerization: Will not occur

SECTION VI - HEALTH HAZARD DATA

Route(s) of Entry: **Inhalation?** YES **Skin?** No **Ingestion?** No

Health Hazards (Acute and Chronic)
Crystalline silica can affect the lungs if it is inhaled in excessive quantities. Immediate (acute) effects include irritation of the eyes, nose and throat. Prolonged or repeated inhalation of excessive quantities of quartz dust containing respirable crystalline silica for extended intervals may result in a delayed (chronic) pulmonary disease called silicosis. Silicosis is a form of pulmonary fibrosis which under some circumstances may be disabling, progressive and sometimes fatal. This disease is characterized by the presence of typical nodulation in the lungs, persistent cough and shortness of breath. Rapidly developing (acute) silicosis may occur after a short interval of heavy exposure in certain occupations such as sandblasting.

Carcinogenicity: There is no general consensus in the medical science community, based on epidemiology or other information, supporting that respirable crystalline silica dust represents a carcinogenic hazard to workers.

OSHA? No

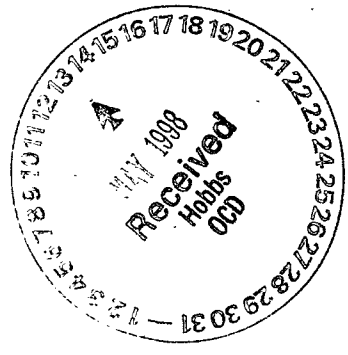
NPT? Yes The National Toxicology Program published its sixth annual report on carcinogens in 1992 which concludes that respirable crystalline silica may reasonably be anticipated to be a carcinogen.

IARC Monographs? Yes IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans (Vol. 68, 1997) concludes (with 10 yes and 7 no votes) that there is sufficient evidence for the carcinogenicity of inhaled crystalline silica to humans.

Signs and Symptoms of Exposure: Breathlessness, wheezing, cough, sputum production.

Medical Condition Generally Aggravated by Exposure:
Pulmonary function may be reduced by inhalation of respirable crystalline silica. Also lung scarring produced by such inhalation may lead to a progressive massive fibrosis of the lungs which may aggravate other pulmonary conditions and diseases and which increases susceptibility to pulmonary tuberculosis. Progressive massive fibrosis may by accompanied by right heart enlargement, heart failure, and pulmonary failure. **Smoking aggravates the effects of exposure.**

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Emergency and First Aid Procedures:
For sand in eyes, flush immediately with water. If irritation persists, seek medical attention. For gross inhalation, remove person immediately to fresh air, give artificial respiration as needed, seek immediate medical attention.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Take if Material is Released or Spilled: Use dustless methods (vacuum) and place in closable container for disposal, or flush with water. **Do not dry sweep.** Wear protective equipment specified below.

Waste Disposal Method:
Dispose in accordance with Federal, State, and Local regulations

Precautions To Be Taken in Handling and Storing:
Avoid breakage of bagged material or spills of bulk material. See control measure in Section VIII.

Other Precautions:
Use dustless systems for handling, storage, and clean up so that airborne dust does not exceed the PEL. Use adequate ventilation and dust collection. Practice good housekeeping. Do not permit dust to collect on walls, floors, sills, ledges, machinery, or equipment. Maintain, clean and fit test respirators in accordance with OSHA regulations. Maintain and test ventilation and dust collection equipment. Wash or vacuum clothing which has become dusty. See also control measures in Section VIII.

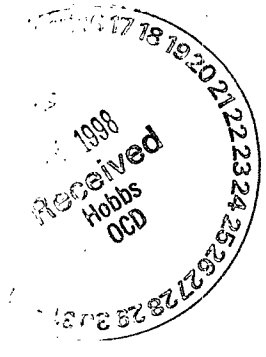
See OSHA Hazard Communication Rule 29 CFR Sections 1910.1200, 1915.99, 1917.28, 1918.90, 1926.59, and 1928.21, state and local worker or community "right to know" laws and regulations. **We recommend that smoking be prohibited in all areas where respirators must be used. WARN YOUR EMPLOYEES (AND YOUR CUSTOMER-USERS IN CASE OF RESALE) BY POSTING AND OTHER MEANS OF THE HAZARD AND OSHA PRECAUTIONS TO BE USED. PROVIDE TRAINING FOR YOUR EMPLOYEES ABOUT THE OSHA PRECAUTIONS.** See also American Society for Testing and Materials (ASTM) standard practice E1132-86, "Standard practice for Health Requirements Relating to Occupational Exposure to Quartz Dust."

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION FOR CRYSTALLINE SILICA

Particulate Concentration	Minimum Respiratory Protection**
5 x PEL or less	Any dust respirator.
10 x PEL or less	Any dust respirator, except single-use or quarter-mask respirator Any fume respirator or hi efficiency particulate filter respirator Any supplied-air respirator Any self-contained breathing apparatus.
50 x PEL or less	High efficiency particulate filter respirator with full facepiece Any supplied-air respirator with a full facepiece, helmet, or hood Any self-contained breathing apparatus with a full facepiece
500x PEL or less	Powered air-purifying respirator w/high effic. Particulate filter Type C supplied-air respirator operated in pressure-demand or other positive pressure or continuous-flow mode
Greater than 500 x PEL	Self-contained breathing apparatus with a full facepiece operated in pressure-demand or other positive or entry and escape from pressure mode

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RESPIRATORY PROTECTION FOR CRYSTALLINE SILICA (Continued)

Particulate Concentration	**Minimum Respiratory Protection****
Unknown concentrations	A combination respirator which includes a Type C supplied-air respirator with a full facepiece operated in pressure-demand or other positive pressure continuous-flow mode and an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive pressure mode
Abrasive blasting	Any type C, supplied-air respirator with a full facepiece, hood, or helmet, operated in a positive pressure mode (see 29CFR1910.94(a)) Anyone in the vicinity of the blasting site during blasting and during cleanup should wear proper respiratory protection. (See 29CFR1910.94(5)(iii)) Also see 30CFR Part 11.

****Only NIOSH-approved or MSHA-approved equipment should be used. See 29CFR1910.134 Also see ANSI standard Z88.2-1980 "Practices for Respiratory Protection", and Standard Z9.4-1984 "Ventilation and Safe Practices of Abrasive Blasting Operations."**

VENTILATION:

Local Exhaust: Use sufficient local exhaust to reduce level of respirable crystalline silica to below the PEL. See ACGIH "Industrial Ventilation, A Manual of Recommended Practice."

Mechanical: See "Other Precautions" under Section VII

Special: See "Other Precautions" under Section VII

Other: See "Other Precautions" under Section VII

Protective Gloves: Optional

Eye Protection: Wear protective shield or safety glasses

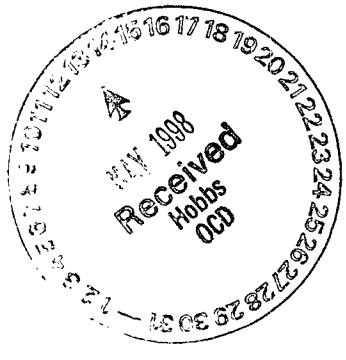
Other Protective Clothing and Equipment: Optional

Work/Hygienic Practices: Avoid creating and breathing dust.
See "Other Precautions" under Section VII

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, express or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our silica. Customer-users of silica must comply with all applicable health and safety laws, regulations, and orders.

TRADE NAMES - None




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

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

Form C-13
Originated 8/8/

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Oil Conservation Division

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to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Navajo Refining
	5. Originating Site Lovington Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs,	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Lovington Highway	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is for the Navajo Refining Artesia facility. This material was generated by a failed gasket causing the spill of gas oil to bare ground. I have included a certificate of waste and a chain of custody.

06-007

JUN 1998
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Hobbs
OCD

Sent to Hobbs 6-29-98

Estimated Volume 30 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Cham
Waste Management Facility/Authorized Agent
TITLE: Envir. Compliance Manager DATE: 06/23/98

TYPE OR PRINT NAME: Billie Cham TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: E-MAIL DATE: 6/24/98

APPROVED BY: Martyne J. Kieling TITLE: Env Geologist DATE: 6-29-98

District I - (505) 393-6161
P.O. Box 1980
Hobbs, NM 88241-1980
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Artesia, NM 88210
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1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

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

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JUN 29 1998
Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs,	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 East Main	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is for the Navajo Refining Artesia facility FCC Cat Fines. This material has been approved in the past and I have included a certificate of waste.

96-29-93 Sent to NMOCD

00-006

JUN 1998 RECEIVED Hobbs OCD

Estimated Volume 25 super sacs cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 06/23/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: [signature] TITLE: FIELD REP. II DATE: 6/26/98

APPROVED BY: Martyn J. Kilpatrick TITLE: Env. Geologist DATE: 6/29/98

istrict I - (505) 393-6161
. O. Box 1980
obbs, NM 88241-1980
istrict II - (505) 748-1283
11 S. First
rtesia, NM 88210
istrict III - (505) 334-6178
)00 Rio Brazos Road
ztec, NM 87410
istrict 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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Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Street Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is for the Navajo Refining Artesia facility. I have included a certificate of waste and a chain of custody.

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OCD

Estimated Volume 15 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 07/31/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 7/31/98

APPROVED BY: _____ TITLE: Bureau Chief DATE: 8/10/98

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

July 30, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get approximately 15 yards of chloride guard generated at Navajo's Artesia plant profiled into your facility. This catalyst strips hydrogen chloride from reformate in hydrogen chloride drum D-363. Enclosed you will find a Certificate of Waste Status along with a TCLP analysis that verifies this waste is non hazardous. If approved, a truck from Lea Land Incorporated will haul this media in a 20 yard roll off bin to your landfill.

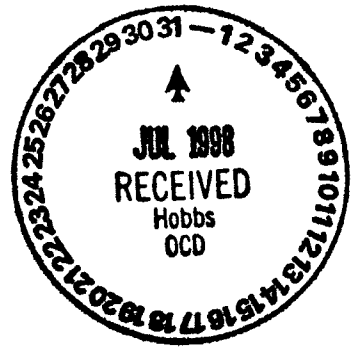
If you have any questions, please call me at (505) 748-3311. Thank you for your time in this matter.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.



CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - CHLORIDE GUARD

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

Title/Agency ENV. SPEC.

Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 7/30/98

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TRACEANALYSIS, INC.

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E-Mail: info@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 Main Street
Artesia, NM 88210

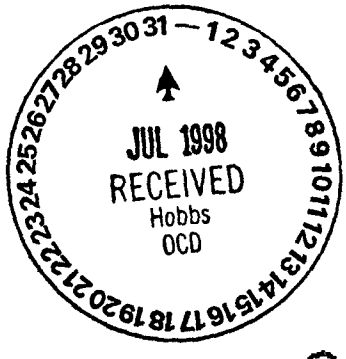
July 21, 1998
Receiving Date 07/03/98
Sample Type: Catalyst
Job Number
Project Location:

Extraction Date: 07/06/98
Analysis Date: 07/07/98
Sampling Date: 07/01/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name:

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T102038/982860 D-363 Chloride Guard	CV	RPD	%EA	%IA
Vinyl chloride	0.20	0.050	ND	120	1	111	120
1,1-Dichloroethene	0.70	0.050	ND	87	0	110	87
Methyl Ethyl Ketone	200.0	0.50	ND	84	5	101	84
Chloroform	6.00	0.050	ND	89	1	111	89
1,2-Dichloroethane	0.50	0.050	ND	97	1	106	97
Benzene	0.50	0.050	ND	86	1	111	86
Carbon Tetrachloride	0.50	0.050	ND	102	1	97	102
Trichloroethene	0.50	0.050	ND	87	0	109	87
Tetrachloroethene	0.70	0.050	ND	89	0	114	89
Chlorobenzene	100.00	0.050	ND	86	0	110	86
1,4-Dichlorobenzene	7.50	0.050	ND	86	1	109	86

SURROGATES	% Recovery
Dibromofluoromethane	94
Toluene-d8	99
4-Bromofluorobenzene	98

ND = Not Detected



METHODS: EPA SW 846-1311, 0260.
CHEMIST: DG

Director, Dr. Blair Leftwich

7-21-98
DATE

TRACEANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 (800•378•1296 806•794•1296 FAX 806•794•1298
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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 Main Street
Artesia, N.M. 88210

July 21, 1998
Receiving Date: 07/03/98
Sample Type: Catalyst
Project #:
Project Location:

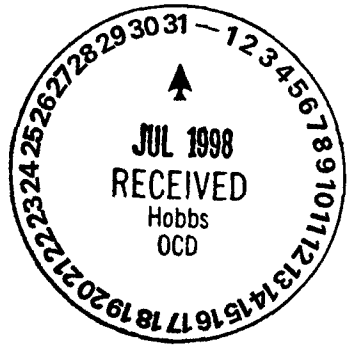
Extraction Date: 7/11/98
Analysis Date: 07/16/98
Sampling Date: 07/01/98
Sample Condition: I & C
Sample Received by: VW
Project Name:

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T102038/982860 D-363 Chloride Guard	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	68	17	44	85
1,4-Dichlorobenzene	7.5	0.05	ND	80	8	66	100
o-Cresol	200.0	0.05	ND	70	6	55	88
m,p-Cresol	200.0	0.05	0.07	64	4	91	80
Hexachloroethane	3.0	0.05	ND	66	4	56	83
Nitrobenzene	2.0	0.05	ND	78	1	75	96
Hexachlorobutadiene	0.5	0.05	ND	87	4	69	109
2,4,6-Trichlorophenol	2.0	0.05	ND	82	11	70	103
2,4,5-Trichlorophenol	400.0	0.05	ND	86	9	76	108
2,4-Dinitrotoluene	0.13	0.05	ND	74	9	76	93
2,4-D	10.0	0.05	ND	91	86*	2	114
Hexachlorobenzene	0.13	0.05	ND	80	4	87	100
2,4,5-TP	1.0	0.05	ND	93	53*	74	116
Pentachlorophenol	100.0	0.05	ND	79	3	60	99

Surrogates	% RECOVERY
2-Fluorophenol	47
Phenol-d5	40
Nitrobenzene-d5	86
2-Fluorobiphenyl	76
2,4,6-Tribromophenol	93
Terphenyl-d14	87

ND - Not Detected

***NOTE: RPD out of control limits due to concentration of sample.**



Methods: EPA SW 846-1311, 8270.
CHEMIST: MB

Director, Dr. Blair Leftwich

7-21-98
DATE

TRACE ANALYSIS, INC.

ANALYTICAL REPORT

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6775 Gateway Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

CLIENT NAVAJO REFINING CO.
501 E. MAIN
ARTESIA, NM 88211

SAMPLE NO. : 982860
INVOICE NO.: 22102386
REPORT DATE: 07-13-98
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : D-363 Chloride Guard
SAMPLE TYPE .....: Solid
SAMPLED BY .....: B Madrid
SUBMITTED BY ....: B Madrid
SAMPLE SOURCE ...: --

AUTHORIZED BY : B. MADRID
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-98
SUBMITTAL DATE : 07-02-98
EXTRACTION DATE: --

REMARKS -

Detection limit was raised as sample was analyzed diluted to avoid matrix interference for the following parameter(s): Barium.

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TCLP Metals

DATA TABLE

Parameter	Result	Unit	Detection Limit	Analysis Date	Test Method	Analyst
Arsenic (TCLP) .....:	<0.050	mg/L	0.050	07-09-98	SW846 7061	N. Munir
Barium (TCLP) .....:	<25.	mg/L	25.	07-10-98	SW846 7080A	N. Munir
Cadmium (TCLP) .....:	<0.25	mg/L	0.25	07-10-98	SW846 7130	N. Munir
Chromium (TCLP) .....:	<0.50	mg/L	0.50	07-10-98	SW846 7190	N. Munir
Lead (TCLP) .....:	<0.75	mg/L	0.75	07-09-98	SW846 7420	N. Munir
Mercury (TCLP) .....:	<0.010	mg/L	0.010	07-09-98	SW846 7471A	N. Munir
Selenium (TCLP) .....:	<0.050	mg/L	0.050	07-08-98	SW846 7741A	N. Munir
Silver (TCLP) .....:	<0.25	mg/L	0.25	07-10-98	SW846 7760A	N. Munir

ANALYTICAL RESULTS REPORTED HEREIN APPLY ONLY TO THE SAMPLES TESTED. PURTHERMORE, THIS REPORT CAN ONLY BE COPIED IN ITS ENTIRETY.

(1) Copy to Client

MANAGING DIRECTOR

07/30/98 10:28 FAX

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4725 Robin Avenue, Suite A El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 Main Street
Artesia, NM 88210

July 22, 1998
Receiving Date: 07/03/98
Sample Type: Catalyst
Project No:
Project Location:

Extraction Date: 7/11/98
Analysis Date: 7/18/98
Sampling Date: 7/01/98
Sample Condition: I & C
Sample Received by: VW
Project Name:

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	--	500	250	--	<2 >12.5	--
T102036	D-363 Chloride Guard	Non-reactive	<10	<2.5	Non-corrosive	11.7	Nonignitable
QC	Quality Control	--	--	--	--	7.0	--
RPD		0	0	0	0	0	0
% Extraction Accuracy		--	--	--	--	--	--
% Instrument Accuracy		--	--	--	--	100	--

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OCD
Hobbs

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1
CHEMIST: RC

Director Dr. Blair Leftwich

7-22-98
DATE

07/24/98 16:37 FAX 008

ent By: TRACEANALYSIS 88; 18067941296; 23 Jul'98 12:55; Job 458;Page 3/3

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Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

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

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Originated 8/8/

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District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK w/ Price 8/18/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator Navajo Refining
	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs,	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Navajo Refining Artesia facility. The material has been approved in the past. I have included a certificate of waste and a chain of custody

08-005

AUG 1998
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OCD

Estimated Volume 20 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 08/17/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 8/18/98

APPROVED BY: _____ TITLE: Bureau Chief DATE: 8/27/98

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

August 13, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

Asphalt samples here at Navajo's Artesia plant are required to be saved for a period of one year. Periodically, older ones need to be disposed of to make room for new ones. A recent cleanout of our storage area resulted in the accumulation of approximately 20 yards of this waste that I would like to get profiled into your facility. Asphalt has been approved in the past, and since process has not changed, I have enclosed only a Certificate of Waste Status. If accepted, a truck from Lea Land Incorporated will haul these samples in a 20 yard roll off bin.

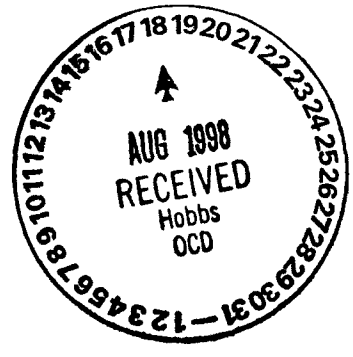
If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.



CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - ASPHALT

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.



Name BRYAN MADRID

Title/Agency ENV. SPEC.

Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 8/13/98

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moo
501 East Main
Artesia, NM 88210



September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Prep Date: 08/31/95
Analysis Date: 09/06/95
Sampling Date: 08/18/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY FLASHPOINT (^{o}F)
T40096	Ceramic Saddles & Balls	Non-reactive	<10.0	<2.5	Non-corrosive	7.32	Nonignitabl
T40098	Activated Alumina	Non-reactive	<10.0	<2.5	Non-corrosive	7.50	Nonignitabl
T40099	Asphalt	Non-reactive	<10.0	<2.5	Non-corrosive	7.06	>150
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	--	---	---	---
% Instrument Accuracy		---	---	--	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 1010.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/22/95
Analysis Date: 08/29/95
Sampling Date: 08/18/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ba	Ag	Hg
	EPA LIMIT =	5.0	1.0	5.0	1.0	5.0	100.0	5.0	0.20
T40096	Ceramic Saddles & Balls	<0.1	0.6	<0.1	<0.1	<0.1	<1.0	0.01	<0.01
T40098	Activated Alumina	0.4	0.3	<0.1	<0.1	<0.1	<1.0	0.02	<0.01
T40099	Asphalt	<0.1	0.3	<0.1	<0.1	0.2	<1.0	<0.01	<0.01
QC	Quality Control	2.0	2.23	1.94	2.03	1.94	1.95	0.96	0.052
Reporting Limit		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.01
RPD		4	2	2	2	4	8	12	0
% Extraction Accuracy		89	83	88	89	77	94	84	102
% Instrument Accuracy		100	111	97	102	97	97	96	105

METHODS: EPA SW 846-1311, 6010, 7471.
TCLP METALS SPIKE: 4.0 mg/L As, Se, Cr, Cd, Pb, Ba, 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 2.0 mg/L As, Se, Cr, Cd, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
Date

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AUG 1995
Hobbs
OCD

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/21/95
Analysis Date: 08/22/95
Sampling Date: 08/18/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T40099 Asphalt	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	57	10	128	114
1,1-Dichloroethene	0.70	0.05	ND	59	3	119	118
Methyl Ethyl Ketone	200.0	0.5	ND	51	6	105	102
Chloroform	6.00	0.05	ND	58	1	118	116
1,2-Dichloroethane	0.50	0.05	ND	55	1	112	110
Benzene	0.50	0.05	ND	57	1	108	114
Carbon Tetrachloride	0.50	0.05	ND	58	3	115	116
Trichloroethene	0.50	0.05	ND	54	1	102	108
Tetrachloroethene	0.70	0.05	ND	55	2	102	110
Chlorobenzene	100.00	0.05	ND	54	0	104	108
1,4-Dichlorobenzene	7.50	0.05	ND	54	0	104	108

SURROGATES	% Recovery
Dibromofluoromethane	107
Toluene-d8	100
4-Bromofluorobenzene	97

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



9-12-95

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

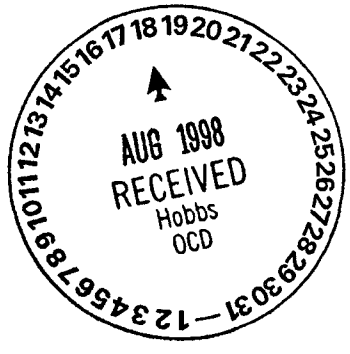
ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/30/95
Analysis Date: 09/02/95
Sampling Date: 08/18/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T40099 Asphalt	QC	%IA
Pyridine	5.0	0.05	ND	83	104
1,4-Dichlorobenzene	7.5	0.05	ND	81	101
o-Cresol	200.0	0.05	ND	81	101
m,p-Cresol	200.0	0.05	ND	157	98
Total Cresol	200.0	0.05	ND	---	---
Hexachloroethane	3.0	0.05	ND	87	109
Nitrobenzene	2.0	0.05	ND	81	101
Hexachlorobutadiene	0.5	0.05	ND	87	109
2,4,6-Trichlorophenol	2.0	0.05	ND	81	101
2,4,5-Trichlorophenol	400.0	0.05	ND	87	109
2,4-Dinitrotoluene	0.13	0.05	ND	80	100
2,4-D	10.0	0.05	ND	84	105
Hexachlorobenzene	0.13	0.05	ND	78	98
2,4,5-TP	1.0	0.05	ND	101	126
Pentachlorophenol	100.0	0.05	ND	91	114
Lindane	0.4	0.001	ND	80	100
Total Heptachlor	0.008	0.001	ND	---	---
Endrin	0.02	0.001	ND	62	78
Methoxychlor	10.0	0.001	ND	68	85
Chlordane	0.03	0.005	ND	---	---
Toxaphene	0.5	0.1	ND	---	---

Surrogates	% RECOVERY
2-Fluorophenol	76
Phenol-d6	77
Nitrobenzene-d5	71
2-Fluorobiphenyl	73
2,4,6-Tribromophenol	64
Terphenyl-d14	68



Methods: EPA SW 846-1311, 8270, 8080.
ND - Not Detected

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
DATE

NAVAJO REFINING COMPANY
P. O. BOX 159
ARTESIA, NM 88211-0159
(505) 748-3311, (505) 365-8364, (505) 365-8365 (24 Hours

MATERIAL SAFETY DATA SHEET

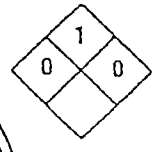
EMERGENCY PHONE NUMBERS:

CHEMTREC: 1-800-424-9300 (for fire, spill and emergency response information)
NEW MEXICO POISON INFORMATION CENTER: 1-800-432-6866 (for poisoning)
TEXAS (EL PASO) POISON INFORMATION CENTER: (915) 533-1244 (for poisoning)
ARIZONA POISON INFORMATION CENTER: 1-800-362-0101 or (602) 253-3334 (for poisoning)

ASPHALT, PENETRATION GRADE

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: ASPHALT, PENETRATION GRADE CAS NUMBER: 8042-42-4
FORMULA: N.A. CHEMICAL FAMILY: Hydrocarbon
SYNONYMS: Petroleum Pitch, 60-70, 85-100, 120-150, Road Tar



NFPA 704 SYMBOL

AUG 1998
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SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS NO.	VOL%	TLV	PEL (OSHA)
ASPHALT (containing)	8042-42-4	100	N.A.	N.A.
Hydrogen Sulfide	7783-06-4	<0.1	10 ppm	10 ppm

OTHER INGREDIENT INFORMATION:
Asphalt is a complex mixture of paraffinic, aromatic, and naphthenic hydrocarbons. high temperatures, petroleum asphalt fumes (CAS No. 8052-42-4) may be present. The exposure limit for these fumes is 5 mg/m^3.

SECTION 3 - PHYSICAL DATA

BOILING POINT: >700°F
VAPOR PRESSURE: N.A.
VAPOR DENSITY (AIR=1): N.A.
SOLUBILITY IN WATER: Insoluble
ODOR THRESHOLD: N.A.
SPECIFIC GRAVITY (WATER=1): 1.0-1.1
% VOLATILE BY VOLUME: 0%
EVAPORATION RATE: N.A.
AUTOIGNITION TEMP: 400-700°F
APPEARANCE AND ODOR: Black solid at room temperature with no appreciable odor. Liquid at elevated temperatures with tar like odor.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

CLASSIFICATION: CLASS IIIB, COMBUSTIBLE LIQUID
FLASH POINT: >400°F (COC)
FLAMMABLE LIMITS: LEL = N.A. UEL = N.A.
EXTINGUISHING MEDIA: Dry chemical, CO_2.
SPECIAL FIRE FIGHTING PROCEDURES: Move container from fire area if possible. Use water to keep fire exposed containers cool.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Evacuate a radius of 1500 feet for uncontrolled fires. Water for foam may cause frothing and evolution of steam. Fumes may accumulate from low boiling hydrocarbons and hydrogen sulfide. Iron sulfide may also accumulate.
NFPA FIRE = 1 (low)

SECTION 5 - REACTIVITY DATA

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID/INCOMPATABILITY: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and sulfur dioxide.

NFPA REACTIVITY = 0 (minimal)

SECTION 6 - HEALTH HAZARD DATA

ROUTES OF ENTRY: At room temperature asphalt is a solid. At elevated temperatures there may be inhalation of fumes or skin contact.

HEALTH HAZARDS: Dermititis, eye, skin or lung irritation. Hot asphalt can cause severe burns. Possibility of skin cancer.

CARCINOGENICITY: Asphalt is not listed by NTP or IARC.

SIGNS AND SYMPTOMS OF EXPOSURE: Skin irritation, irritation of nose and throat, burns from contact with hot asphalt.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Maintain respirations, assist with artificial respiration if needed and give oxygen if available and trained to do so. Seek medical attention.

BURNS: Immediately cool skin by quenching with cold water. Cover with a sterile dressing and seek medical assistance.

NFPA HEALTH = 0 (minimal)

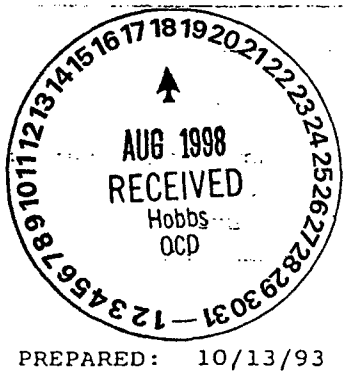
SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spill. Allow to cool. Remove sources of ignition. Pick up with shovels ;or tractors. Place in appropriate waste containers.

WASTE DISPOSAL: Dispose in accordance with RCRA regulations. Do not put in sewers or any water course.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Asphalt is normally stored at high temperatures. It can cause severe burns.

OTHER PRECAUTIONS: Avoid breathing vapors. Always wear protective equipment and clothing when handling hot asphalt. Do not weld on containers unless they have been properly cleaned and purged using safe work practices.



SECTION 8 - ENVIRONMENTAL AND SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH\MSHA approved respiratory protection in areas exceeding exposure limits, the type to be determined by the degree of exposure.

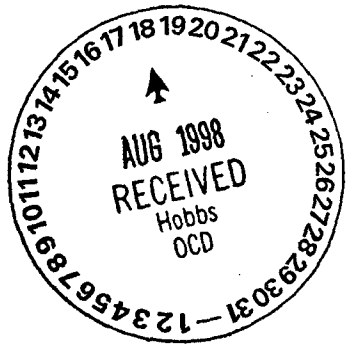
VENTILATION: Use in well ventilated area. Mechanical exhaust should be explosion proof.

EYE/SKIN PROTECTION: Full face protection, heavy leather gloves, coveralls with long sleeves.

WORK/HYGIENIC PRACTICES: Remove contaminated clothing as soon as possible. Always wash after handling hazardous chemicals.

NOTICE: This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

REFER TO DEPARTMENT OF TRANSPORTATION (DOT) EMERGENCY RESPONSE GUIDEBOOK GUIDE 27 FOR ADDITIONAL EMERGENCY INFORMATION.



This information is believed to be accurate and as reliable as information available to us. We make no warranty or guarantee as to its accuracy and assume no liability from its use. Users should determine the suitability of the information for their particular purposes.

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #:
FAX #:
Company Name & Address: Navajo Refining Co.
Project #:
Project Name :
Project Location: Artesia & Lovington N. Mex.
Sampler Signature: Darrell Moore

RECEIVED AUG 1998 Hobbs OCD

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX, MTBE	TPH	TCLP Metals Ag As Ba Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI	SPECIAL HANDLING: Turn around # of days	Fax ASAP	Report,TWC direct	Hold
~~40095~~	~~DO~~ 95 Catalyst	1						X						8/14/95	13:30			X	X	X	X		X				X
96 40095	Ceramic Saddle Balls	1						X						" "	13:45			X		X	X		X				
~~96~~	HDS Catalyst	1						X						"	14:00			X		X	X		X				
98 ~~97~~	Activated Alumina	1						X						" "	14:15			X		X	X		X				
99 ~~98~~	Asphalt	1						X						" "	14:30			X		X	X		X				

Relinquished by:	Date:	Times:	Received by:
Darrell Moore	8/18/95	16:30	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date: 8-21-95	Times:	Received by Laboratory: MS CT

REMARKS

233AB

233AB

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Street	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from the Navajo Artesia facility's FCC Cat fines. The material has been approved in the past. I have included a certificate of waste.

10-001

Estimated Volume 25 supersacs cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compiance Manager DATE: 10/02/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr Spec DATE: 10/7/98

APPROVED BY: _____ TITLE: _____ DATE: _____

TELEPHONE
(505) 748-3311

EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

September 28, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get approximately 300 pipeline filters profiled into your facility. These filters are used to separate solids from finished products being transferred in pipelines to our El Paso terminal. They are changed out on a regular basis and stored in 20 yard roll off bins until approved for disposal.

In a November 10, 1997 letter, Mr. John M. Tymkowych of the New Mexico Environmental Department (NMED), Hazardous and Radioactive Material Bureau (HRMB), confirms that process knowledge and previous analyses are sufficient evidence to prove this waste stream is non hazardous. With that in mind, since process has not changed, I have only enclosed a Certificate of Waste Status along with a copy of the above mentioned letter.

I have also enclosed a Certificate of Waste Status for the usual 25 supersacks of FCC cat fines and 5 drums of asphalt sample cans.

If approved, a truck from Lea Land Incorporated will haul these wastes in 20 yard roll off bins to your facility.

If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING COMPANY

Sources: PETROLEUM REFINING - FCC CAT FINES

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

Title/Agency ENV. SPEC.

Address 501 E. MAIN
ARTESIA, NM 88210

Signature Bryan Madrid

Date 9/28/98

GRACE

Davison Chemical Division
W. R. Grace & Co.
P. O. Box 2117
Baltimore, Maryland 21203
(301) 659-9000

MATERIAL SAFETY DATA SHEET

SAFETY DATA

Zeolitic, Non-Promoted Grades

PRODUCT: _____

April 15, 1991

DATE: _____

Emergency Contact:

J.H. Convey, Manager, Environmental Control Telephone No. (Home) 301-874-2009 (Office) 301-659-9058

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the ultimate user who may come in contact with the material.

TRADE NAME: DAVISON FLUID CRACKING CATALYST, Zeolitic, Non-Promoted Grades (See attachment for specific grades)

CHEMICAL NAME & FAMILY: Silica Alumina (Zeolitic) Catalyst

SYNONYMS: Zeolitic Silica, Alumina Catalyst, Gel or Sol Catalyst

CHEMICAL NOTATION OR STRUCTURE: $xSiO_2 . yAl_2O_3 . zH_2O . mNa_2O . nRE_2O_3$

INGREDIENTS:	SiO_2 ** Silica (Synthetic)	Al_2O_3 Alumina	SiO_2 Silica Gel	Quartz	SO_4 Sulfate	RE_2O_3 Rare Earths	TiO_2 Titania	Na_2O Sodium Oxide	H_2O Water
OSHA: PEL mg/m³ total	6	10	6	0.1	n.l.	n.l.	n.l.	n.l.	n.l.
respirable		5		n.l.					
ACGIH: TLV mg/m³ total	10	10	10	n.l.	n.l.	n.l.	10	n.l.	n.l.
respirable				0.1					
CAS REGISTRY NO:	7631-86-9	1344-28-1	63231-67-4(old) 112926-00-8(new)	60676-86-0	n.l.	68188-83-0	13463-67-7	1313-59-3	7732-18-5
RTECS NO:	VV7322000	BK1200000	VV7310000	n.l.	n.l.	VV7328000	XR2275000	WC4800000	n.l.

n.l. = Not listed ** Should not be confused with quartz, cristobalite, or tridymite.

TSCA: EPA has defined zeolites as complex chemical products consisting of silica (SiO_2) and alumina (Al_2O_3), in various proportions plus metallic oxides and certain cations. For purposes of TSCA, zeolites are statutory mixtures.

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and ...

PRECAUTIONS IN USE:

Prevent dusty conditions that would cause personnel to be exposed to high concentrations of dust.

Workplace dust levels should be kept below the OSHA PEL's and ACGIH TLV's given in Ingredients, page 1. If concentrations exceed these levels, a properly fitted, NIOSH approved, respirator and goggles should be worn.

Prolonged contact with catalyst dust may cause drying irritation of the skin. Longsleeve shirt and gloves with tight fitting wristlets should be used to reduce skin exposure. See SPECIAL INFORMATION, page 4.

FIRST AID:

EYES: Immediately wash the eyes with large amounts of water, occasionally lifting upper & lower lids. If irritation occurs and persists, seek medical attention.
SKIN: Wash area with soap and water. Personnel should shower after handling this material if frequent contact with dust is experienced.
INHALATION: If inhalation causes irritation or discomfort, remove person from exposure and seek medical help if symptoms do not disappear.
INGESTION: If ingested, drink 2 glasses of water and consult a physician.

TOXICOLOGY

ANIMAL TOXICOLOGY

TESTS FOR DOT HAZARD CLASSIFICATION:

Not classified as a hazardous material.
Test results for a similar Davison Fluid Cracking Catalyst were:

- 48-hour oral LD_{50} (rat): greater than 31,600 mg/kg
- 48-hour dermal LD_{50} (rabbit): greater than 2,000 mg/kg

Not considered an ocular irritant.

TESTS FOR FDA APPROVAL FOR USE IN FOODS: Not a food-grade product.

HUMAN TOXICOLOGY: No known hazards in normal usage. With regard to employee exposure to FCC dust, there has been no indication of an incidence of lung problems higher than the background for the population-at-large for employees in our FCC production facilities. Davison has produced Amorphous Grades since 1942, Zeolitic, Non-Promoted Grades since 1964, and Zeolitic Promoted Grades since 1977. The maximum concentration of quartz for all grades is 1.0%. Quartz has been classified by IARC as a Class 2A Carcinogen. Quartz can cause silicosis or other fibrotic lung disease with prolonged exposure. The primary route of entry is inhalation.

ENVIRONMENTAL DATA

Product is not known to have any adverse effect on the aquatic environment. However, waste or contaminated material should be placed where it can not be washed into streams or waterways. See SPECIAL INFORMATION, page 4.

TYPICAL CHEMICAL & PHYSICAL INFORMATION

APPEARANCE: Off-white fine powder (microspheroides)

pH IN 5% SLURRY: 3-6

ODOR: None

SPECIFIC GRAVITY: Approximately 2.1

BULK DENSITY: .45 grams/cc to 1.00 grams/cc depending on grade.

SOLUBILITY IN WATER: Nil.

APPROXIMATE ANALYSIS:

			Wt.%
Alumina	Al_2O_3		20-60
Silica	SiO_2		40-80
Rare Earths	RE_2O_3		0-10
Sulfate	SO_4		0.1-2.5
Sodium Oxide	Na_2O		0-1.0
Titania	TiO_2		0-1.0
Total Volatiles			2-16
Quartz	SiO_2	max.	1.0

STABILITY: Stable

REACTIVITY: Reacts with HF, otherwise inert.

FIRE & EXPLOSION DATA: Non-flammable, will not explode.

REGULATORY STATUS

OSHA— See Ingredients, page 1.

NIOSH— FCC's have not been included on the list of substances requiring toxicity studies.

EPA— This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under § 313 of Title III SARA.

ACGIH— See Ingredients, page 1.

USDA— Not applicable.

FDA— Not applicable.

DOT— Not classified as a hazardous material.

HANDLING INFORMATION

STORAGE AND TRANSPORTATION: No special requirements.

DISPOSAL: Fresh catalyst is non-hazardous. Landfill in accordance with state, local and federal regulations. Cover disposed material promptly to avoid dusty conditions. See SPECIAL INFORMATION, below.

SPILLAGE AND CLEANUP: Fresh Catalyst should be swept up or washed to a sewer system that is treated to remove solids.

CONTAINERS: Drums, bins, truck hoppers or hopper cars depending on requirements. Follow standard operating procedure when using pneumatic transfer into process.

SPECIAL INFORMATION

This Material Safety Data Sheet provides information applicable to the catalyst as shipped. Safe handling and proper disposal of spent catalyst may require special precautions and additional requirements due to the presence of heavy metals picked up in the FCC unit. Contact the Davison representatives if you desire such information.

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the use and conditions of use of this information and the material described herein are not within the control of Grace, Grace assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Grace's Terms and Conditions of Sale, including those limiting warranties and remedies.

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Street	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from the Navajo Artesia facility's asphalt. The material has been approved in the past. I have included a certificate of waste.

10-002

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

SIGNATURE: Billie Charo TITLE: Envir. Compiance Manager DATE: 10/02/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr Spec DATE: 10/7/98

APPROVED BY: _____ TITLE: " DATE: "

TELEPHONE
(505) 748-3311

EASYLINK
62905278

NAVAJO REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

September 28, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get approximately 300 pipeline filters profiled into your facility. These filters are used to separate solids from finished products being transferred in pipelines to our El Paso terminal. They are changed out on a regular basis and stored in 20 yard roll off bins until approved for disposal.

In a November 10, 1997 letter, Mr. John M. Tymkowych of the New Mexico Environmental Department (NMED), Hazardous and Radioactive Material Bureau (HRMB), confirms that process knowledge and previous analyses are sufficient evidence to prove this waste stream is non hazardous. With that in mind, since process has not changed, I have only enclosed a Certificate of Waste Status along with a copy of the above mentioned letter.

I have also enclosed a Certificate of Waste Status for the usual 25 supersacks of FCC cat fines and 5 drums of asphalt sample cans.

If approved, a truck from Lea Land Incorporated will haul these wastes in 20 yard roll off bins to your facility.

If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING COMPANY

Sources: PETROLEUM REFINING - ASPHALT

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING Co. concur with the status of the waste from the subject site.

Name BRYAN MADRID

Title/Agency ENV. SPEC.

Address 501 E MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 9/28/98

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Prep Date: 08/31/95
Analysis Date: 09/06/95
Sampling Date: 08/18/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY FLASHPOINT (^{o}F)
T40096	Ceramic Saddles & Balls	Non-reactive	<10.0	<2.5	Non-corrosive	7.32	Nonignitabl
T40098	Activated Alumina	Non-reactive	<10.0	<2.5	Non-corrosive	7.50	Nonignitabl
T40099	Asphalt	Non-reactive	<10.0	<2.5	Non-corrosive	7.06	>150
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	--	---	---	---
% Instrument Accuracy		---	---	--	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 1010.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/22/95
Analysis Date: 08/29/95
Sampling Date: 08/18/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ba	Ag	Hg
	EPA LIMIT =	5.0	1.0	5.0	1.0	5.0	100.0	5.0	0.20
T40096	Ceramic Saddles & Balls	<0.1	0.6	<0.1	<0.1	<0.1	<1.0	0.01	<0.01
T40098	Activated Alumina	0.4	0.3	<0.1	<0.1	<0.1	<1.0	0.02	<0.01
T40099	Asphalt	<0.1	0.3	<0.1	<0.1	0.2	<1.0	<0.01	<0.01
QC	Quality Control	2.0	2.23	1.94	2.03	1.94	1.95	0.96	0.052
Reporting Limit		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.01
RPD		4	2	2	2	4	8	12	0
% Extraction Accuracy		89	83	88	89	77	94	84	102
% Instrument Accuracy		100	111	97	102	97	97	96	105

METHODS: EPA SW 846-1311, 6010, 7471.
TCLP METALS SPIKE: 4.0 mg/L As, Se, Cr, Cd, Pb, Ba, 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 2.0 mg/L As, Se, Cr, Cd, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

BS

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/21/95
Analysis Date: 08/22/95
Sampling Date: 08/18/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T40099 Asphalt	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	57	10	128	114
1,1-Dichloroethene	0.70	0.05	ND	59	3	119	118
Methyl Ethyl Ketone	200.0	0.5	ND	51	6	105	102
Chloroform	6.00	0.05	ND	58	1	118	116
1,2-Dichloroethane	0.50	0.05	ND	55	1	112	110
Benzene	0.50	0.05	ND	57	1	108	114
Carbon Tetrachloride	0.50	0.05	ND	58	3	115	116
Trichloroethene	0.50	0.05	ND	54	1	102	108
Tetrachloroethene	0.70	0.05	ND	55	2	102	110
Chlorobenzene	100.00	0.05	ND	54	0	104	108
1,4-Dichlorobenzene	7.50	0.05	ND	54	0	104	108

SURROGATES	% Recovery
Dibromofluoromethane	107
Toluene-d8	100
4-Bromofluorobenzene	97

ND = Not Detected

METHODS: EPA SW 846-1311, 8240.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

9-12-95
DATE

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Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 East Main
Artesia, NM 88210

September 12, 1995
Receiving Date: 08/21/95
Sample Type: Solid
Project No: NA
Project Location: Artesia, Lovington, NM

Extraction Date: 08/30/95
Analysis Date: 09/02/95
Sampling Date: 08/18/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T40099 Asphalt	QC	%IA
Pyridine	5.0	0.05	ND	83	104
1,4-Dichlorobenzene	7.5	0.05	ND	81	101
o-Cresol	200.0	0.05	ND	81	101
m,p-Cresol	200.0	0.05	ND	157	98
Total Cresol	200.0	0.05	ND	---	---
Hexachloroethane	3.0	0.05	ND	87	109
Nitrobenzene	2.0	0.05	ND	81	101
Hexachlorobutadiene	0.5	0.05	ND	87	109
2,4,6-Trichlorophenol	2.0	0.05	ND	81	101
2,4,5-Trichlorophenol	400.0	0.05	ND	87	109
2,4-Dinitrotoluene	0.13	0.05	ND	80	100
2,4-D	10.0	0.05	ND	84	105
Hexachlorobenzene	0.13	0.05	ND	78	98
2,4,5-TP	1.0	0.05	ND	101	126
Pentachlorophenol	100.0	0.05	ND	91	114
Lindane	0.4	0.001	ND	80	100
Total Heptachlor	0.008	0.001	ND	---	---
Endrin	0.02	0.001	ND	62	78
Methoxychlor	10.0	0.001	ND	68	85
Chlordane	0.03	0.005	ND	---	---
Toxaphene	0.5	0.1	ND	---	---

Surrogates	% RECOVERY
2-Fluorophenol	76
Phenol-d6	77
Nitrobenzene-d5	71
2-Fluorobiphenyl	73
2,4,6-Tribromophenol	64
Terphenyl-d14	68

Methods: EPA SW 846-1311, 8270, 8080.
ND - Not Detected

9-12-95

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE

NAVAJO REFINING COMPANY
P. O. BOX 159
ARTESIA, NM 88211-0159
(505) 748-3311, (505) 365-8364, (505) 365-8365 (24 Hours)

MATERIAL SAFETY DATA SHEET

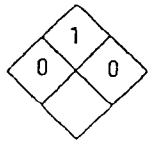
EMERGENCY PHONE NUMBERS:

CHEMTREC: 1-800-424-9300 (for fire, spill and emergency response information)
NEW MEXICO POISON INFORMATION CENTER: 1-800-432-6866 (for poisoning)
TEXAS (EL PASO) POISON INFORMATION CENTER: (915) 533-1244 (for poisoning)
ARIZONA POISON INFORMATION CENTER: 1-800-362-0101 or (602) 253-3334 (for poisoning)

ASPHALT, PENETRATION GRADE

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: ASPHALT, PENETRATION GRADE CAS NUMBER: 8042-42-4
FORMULA: N.A. CHEMICAL FAMILY: Hydrocarbon
SYNONYMS: Petroleum Pitch, 60-70, 85-100, 120-150, Road Tar



NFPA 704 SYMBOL

SECTION 2 - HAZARDOUS INGREDIENTS

AZARDOUS COMPONENTS	CAS NO.	VOL%	TLV	PEL (OSHA)
ASPHALT (containing)	8042-42-4	100	N.A.	N.A.
Hydrogen Sulfide	7783-06-4	<0.1	10 ppm	10 ppm

OTHER INGREDIENT INFORMATION:
Asphalt is a complex mixture of paraffinic, aromatic, and naphthenic hydrocarbons. At high temperatures, petroleum asphalt fumes (CAS No. 8052-42-4) may be present. The exposure limit for these fumes is 5 mg/m^3.

SECTION 3 - PHYSICAL DATA

BOILING POINT: >700°F
VAPOR PRESSURE: N.A.
VAPOR DENSITY (AIR=1): N.A.
SOLUBILITY IN WATER: Insoluble
ODOR THRESHOLD: N.A.
SPECIFIC GRAVITY (WATER=1): 1.0-1.1
% VOLATILE BY VOLUME: 0%
EVAPORATION RATE: N.A.
AUTOIGNITION TEMP: 400-700°F
APPEARANCE AND ODOR: Black solid at room temperature with no appreciable odor. Liquid at elevated temperatures with tar like odor.

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

CLASSIFICATION: CLASS IIIB, COMBUSTIBLE LIQUID
FLASH POINT: >400°F (COC)
FLAMMABLE LIMITS: LEL = N.A. UEL = N.A.
EXTINGUISHING MEDIA: Dry chemical, CO_2.
SPECIAL FIRE FIGHTING PROCEDURES: Move container from fire area if possible. Use water to keep fire exposed containers cool.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Evacuate a radius of 1500 feet for uncontrolled fires. Water for foam may cause frothing and evolution of steam. Fumes may accumulate from low boiling hydrocarbons and hydrogen sulfide. Iron sulfide may also accumulate.
NFPA FIRE = 1 (low)

SECTION 5 - REACTIVITY DATA

STABILITY: Stable
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID/INCOMPATABILITY: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and sulfur dioxide.

NFPA REACTIVITY = 0 (minimal)

SECTION 6 - HEALTH HAZARD DATA

ROUTES OF ENTRY: At room temperature asphalt is a solid. At elevated temperatures there may be inhalation of fumes or skin contact.

HEALTH HAZARDS: Dermititis, eye, skin or lung irritation. Hot asphalt can cause severe burns. Possibility of skin cancer.

CARCINOGENICITY: Asphalt is not listed by NTP or IARC.

SIGNS AND SYMPTOMS OF EXPOSURE: Skin irritation, irritation of nose and throat, burns from contact with hot asphalt.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Maintain respirations, assist with artificial respiration if needed and give oxygen if available and trained to do so. Seek medical attention.

BURNS: Immediately cool skin by quenching with cold water. Cover with a sterile dressing and seek medical assistance.

NFPA HEALTH = 0 (minimal)

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Contain spill. Allow to cool. Remove sources of ignition. Pick up with shovels ;or tractors. Place in appropriate waste containers.

WASTE DISPOSAL: Dispose in accordance with RCRA regulations. Do not put in sewers or any water course.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Asphalt is normally stored at high temperatures. It can cause severe burns.

OTHER PRECAUTIONS: Avoid breathing vapors. Always wear protective equipment and clothing when handling hot asphalt. Do not weld on containers unless they have been properly cleaned and purged using safe work practices.

SECTION 8 - ENVIRONMENTAL AND SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use NIOSH\MSHA approved respiratory protection in areas exceeding exposure limits, the type to be determined by the degree of exposure.

VENTILATION: Use in well ventilated area. Mechanical exhaust should be explosion proof.

EYE/SKIN PROTECTION: Full face protection, heavy leather gloves, coveralls with long sleeves.

WORK/HYGIENIC PRACTICES: Remove contaminated clothing as soon as possible. Always wash after handling hazardous chemicals.

NOTICE: This product contains a toxic chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

REFER TO DEPARTMENT OF TRANSPORTATION (DOT) EMERGENCY RESPONSE GUIDEBOOK GUIDE 27 FOR ADDITIONAL EMERGENCY INFORMATION.

This information is believed to be accurate and as reliable as information available to us. We make no warranty or guarantee as to its accuracy and assume no liability from its use. Users should determine the suitability of the information for their particular purposes.

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #:
FAX #:
Company Name & Address: Navajo Refining Co.
Project #:
Project Name :
oject Location: Artesia & Lovington N.M.
Sampler Signature: Darrell Moore

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	OTHER	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	TDS	RCI
~~95~~ ~~40094~~	UOP-95 Catalyst	1						X						8/18/95	13:30			X	X	X	X		X
96 40095	Ceramic Sulfur Balls	1						X						" "	13:45			X		X	X		X
~~96~~	HDS Catalyst	1						X							14:00			X		X	X		X
98 ~~97~~	Activated Alumina	1						X						" "	14:15			X		X	X		X
99 ~~98~~	Asphalt	1						X						" "	14:30			X		X	X		X

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Report TWC direct; Hold X

Relinquished by:	Date:	Times:	Received by:
Darrell Moore	8/18/95	16:30	
Relinquished by:	Date:	Times:	Received by:
Relinquished by:	Date: 8-21-95	Times:	Received by Laboratory: MS CT

REMARKS

233AB

233AB

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

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

Form C-13
Originated 8/8/

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to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is for the Navajo Refining Artesia Facility's pipeline filters. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

10-003

Estimated Volume 300 filters cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 10/02/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: Chris Williams TITLE: DISTRICT 1 SUPERVISOR DATE: 10/4/98

APPROVED BY: W P Ln 5 IZ TITLE: P St Engr Spec DATE: 10/7/98


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CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - PIPELINE FILTERS

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

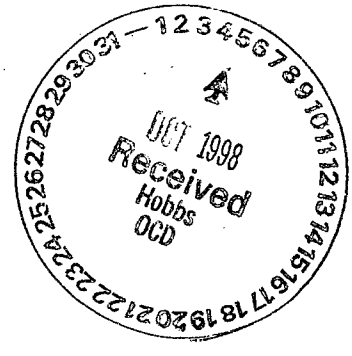
Title/Agency ENV. SPEC.

Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 9/28/98


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TELEPHONE
(505) 748-3311

EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

September 28, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get approximately 300 pipeline filters profiled into your facility. These filters are used to separate solids from finished products being transferred in pipelines to our El Paso terminal. They are changed out on a regular basis and stored in 20 yard roll off bins until approved for disposal.

In a November 10, 1997 letter, Mr. John M. Tymkowych of the New Mexico Environmental Department (NMED), Hazardous and Radioactive Material Bureau (HRMB), confirms that process knowledge and previous analyses are sufficient evidence to prove this waste stream is non hazardous. With that in mind, since process has not changed, I have only enclosed a Certificate of Waste Status along with a copy of the above mentioned letter.

I have also enclosed a Certificate of Waste Status for the usual 25 supersacks of FCC cat fines and 5 drums of asphalt sample cans.

If approved, a truck from Lea Land Incorporated will haul these wastes in 20 yard roll off bins to your facility.

If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

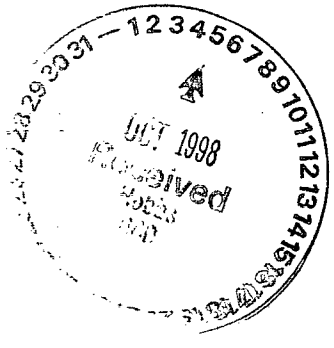
Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI


OCT 1998
Received

State of New Mexico
ENVIRONMENT DEPARTMENT
Hazardous & Radioactive Materials Bureau
2044 Galisteo
P.O. Box 26110
Santa Fe, New Mexico 87502
(505) 827-1557
Fax (505) 827-1544

GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

EDGAR T. THORNTON, III
DEPUTY SECRETARY

November 10, 1997

Mr. Darrell Moore
Environmental Manager for Water and Waste
Navajo Refining Company
P.O. Box 159
Artesia, New Mexico 88211-0159

Dear Mr. Moore:

RE: Disposal of Pipeline Filters

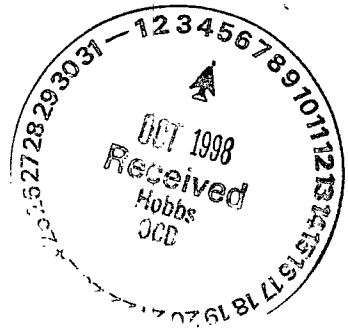
Based on the information Navajo Refining Company (NRC), has provided on the above captioned subject, the New Mexico Environment Department (NMED), Hazardous and Radioactive Materials Bureau (HRMB), finds that your knowledge of process (KOP) is sufficient at this point in time to support a non-hazardous waste designation for these filters. However, NMED must point out that should any changes be made to the "process" or "processes" which generate this waste, NRC must perform another hazardous waste determination on the filters affected. NMED/HRMB may also sample this waste stream at periodic intervals in the future as well.

If you have any further questions or if I can be of any other assistance, please call me at (505) 827-1508.

Sincerely,

John M. Tymkowych
RCRA Inspection/Enforcement Program Manager
Hazardous and Radioactive Materials Bureau

cc: Benito J. Garcia, Chief HRMB
Navajo, Blue, 1997


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TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

August 9, 1995
Receiving Date: 07/25/95
Sample Type: Filter
Project No: NA
Project Location: El Paso, TX

Extraction Date: 07/25/95
Analysis Date: 07/27/95
Sampling Date: 07/24/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ba	Ag	Hg
	EPA LIMIT =	5.0	1.0	5.0	1.0	5.0	100.0	5.0	0.20
T38998	JP-8 Filter PD 8" F-1A	3.0	<0.2	<0.1	<0.1	<0.1	<1.0	<0.01	<0.01
QC	Quality Control	4.9	4.8	4.7	4.6	4.7	4.5	5.3	0.05
Reporting Limit		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.01
RPD		6	2	0	2	2	0	16	4
% Extraction Accuracy		76	97	89	84	85	89	93	96
% Instrument Accuracy		97	96	94	91	94	90	106	101

METHODS: EPA SW 846-1311, 6010, 7471.
TCLP METALS SPIKE: 4.0 mg/L As, Se, Cr, Cd, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cr, Cd, Pb, Ba, Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

8-9-95
Date

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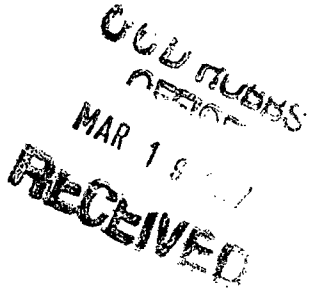
ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

August 9, 1995
Receiving Date: 07/25/95
Sample Type: Filter
Project No: NA
Project Location: El Paso, TX

Extraction Date: 07/25/95
Analysis Date: 07/27/95
Sampling Date: 07/24/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T38998 JP-8 Filter PD 8" F-1A	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.1	ND	0.048	7	94	96
1,1-Dichloroethene	0.70	0.1	ND	0.057	0	108	114
Methyl Ethyl Ketone	200.0	1.0	ND	0.053	12	120	106
Chloroform	6.00	0.1	ND	0.051	3	99	102
1,2-Dichloroethane	0.50	0.1	ND	0.051	6	97	102
Benzene	0.50	0.1	ND	0.054	0	96	108
Carbon Tetrachloride	0.50	0.1	ND	0.055	2	105	110
Trichloroethene	0.50	0.1	ND	0.053	1	97	106
Tetrachloroethene	0.70	0.1	ND	0.054	6	103	108
Chlorobenzene	100.00	0.1	ND	0.053	2	101	106
1,4-Dichlorobenzene	7.50	0.1	ND	0.053	3	103	106

SURROGATES	% Recovery
Dibromofluoromethane	101
Toluene-d8	98
4-Bromofluorobenzene	98



ND = Not Detected

METHODS: EPA SW 846-1311, 8240.

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Director, Dr. Bruce McDonell

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Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

August 9, 1995
Receiving Date: 07/25/95
Sample Type: Filter
Project No: NA
Project Location: El Paso, TX

Extraction Date: 07/27/95
Analysis Date: 08/02/95
Sampling Date: 07/24/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T38998 JP-8 Filter PD 8" F-1A	RPD	%EA	QC	%IA
Pyridine	5.0	0.001	ND	16	53	47.1	94
1,4-Dichlorobenzene	7.5	0.001	ND	6	71	49.5	99
o-Cresol	200.0	0.05	0.091	12	61	46.2	92
m,p-Cresol	200.0	0.05	0.156	4	75	50.5	101
Total Cresol	200.0	0.1	0.247	6	64	96.7	97
Hexachloroethane	3.0	0.001	ND	10	58	46.6	93
Nitrobenzene	2.0	0.001	ND	2	88	50.5	101
Hexachlorobutadiene	0.5	0.001	ND	2	83	54.5	109
2,4,6-Trichlorophenol	2.0	0.1	ND	12	73	48.3	99
2,4,5-Trichlorophenol	400.0	01	ND	6	78	53.7	107
2,4-Dinitrotoluene	0.13	0.001	ND	30	60	40.1	80
2,4-D	10.0	0.01	ND	16	73	47.4	95
Hexachlorobenzene	0.13	0.001	ND	8	81	53.6	107
2,4,5-TP	1.0	0.01	ND	4	85	52.8	106
Pentachlorophenol	100.0	0.001	ND	26	64	43.2	86
Lindane	0.4	0.001	ND	28	75	53.9	108
Total Heptachlor	0.008	0.001	ND	16	59	98.3	98
Endrin	0.02	0.001	ND	24	76	50.5	101
Methoxychlor	10.0	0.001	ND	6	72	54.3	108
Chlordane	0.03	0.0002	ND	36	105	0.500	100
Toxaphene	0.5	0.005	ND	2	100	4.980	100

Surrogates	**% RECOVERY**
2-Fluorophenol	64
Phenol-d6	39
Nitrobenzene-d5	32
2-Fluorobiphenyl	76
2,4,6-Tribromophenol	88
Terphenyl-d14	88



Methods: EPA SW 846-1311, 8270, 8080.
ND - Not Detected

8-9-95

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

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TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

RECEIVED
MAR 19 1997

August 9, 1995
Receiving Date: 07/25/95
Sample Type: Filter
Project No: NA
Project Location: El Paso, TX

Extraction Date: 07/25/95
Analysis Date: 07/27/95
Sampling Date: 07/24/95
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: NA

TCLP METALS (mg/L)

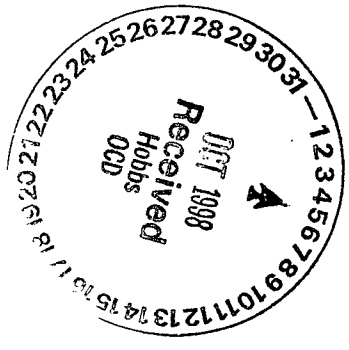
TA#	Field Code	As	Se	Cr	Cd	Pb	Ba	Ag	Hg
	EPA LIMIT =	5.0	1.0	5.0	1.0	5.0	100.0	5.0	0.20
T38997	El Paso PD Filter F-1 Gasoline 8"	5.4	<0.2	<0.1	<0.1	<0.1	<1.0	<0.01	<0.01
QC	Quality Control	4.9	4.8	4.7	4.6	4.7	4.5	5.3	0.05
Reporting Limit		0.1	0.2	0.1	0.1	0.1	1.0	0.01	0.01
RPD		6	2	0	2	2	0	16	4
Extraction Accuracy		76	97	89	84	85	89	93	96
% Instrument Accuracy		97	96	94	91	94	90	106	101

METHODS: EPA SW 846-1311, 6010, 7471.
TCLP METALS SPIKE: 4.0 mg/L As, Se, Cr, Cd, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cr, Cd, Pb, Ba, Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

8-9-95
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Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

August 9, 1995
Receiving Date: 07/25/95
Sample Type: Filter
Project No: NA
Project Location: El Paso, TX

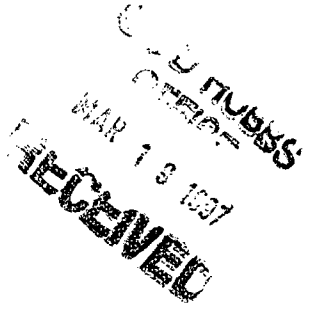
Extraction Date: 07/25/95
Analysis Date: 07/27/95
Sampling Date: 07/24/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T38997 El Paso PD Filter F-1 Gasoline 8"	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.1	ND	0.048	7	94	96
1,1-Dichloroethene	0.70	0.1	ND	0.057	0	108	114
Methyl Ethyl Ketone	200.0	1.0	ND	0.053	12	120	106
Chloroform	6.00	0.1	ND	0.051	3	99	102
1,2-Dichloroethane	0.50	0.1	ND	0.051	6	97	102
Benzene	0.50	0.1	0.15	0.054	0	96	108
Carbon Tetrachloride	0.50	0.1	ND	0.055	2	105	110
Trichloroethene	0.50	0.1	ND	0.053	1	97	106
Tetrachloroethene	0.70	0.1	ND	0.054	6	103	108
Chlorobenzene	100.00	0.1	ND	0.053	2	101	106
1,4-Dichlorobenzene	7.50	0.1	ND	0.053	3	103	106

SURROGATES	% Recovery
Dibromofluoromethane	102
Toluene-d8	98
4-Bromofluorobenzene	99

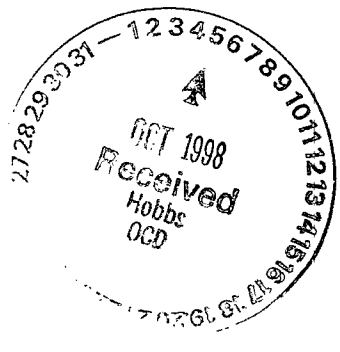
ND = Not Detected

METHODS: EPA SW 846-1311, 8240.



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Director, Dr. Bruce McDonell

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ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

August 9, 1995
Receiving Date: 07/25/95
Sample Type: Filter
Project No: NA
Project Location: El Paso, TX

Extraction Date: 07/27/95
Analysis Date: 08/02/95
Sampling Date: 07/24/95
Sample Condition: I & C
Sample Received by: MS
Project Name: NA

T38997

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	El Paso PD Filter F-1 Gasoline 8"	RPD	%EA	QC	%IA
Pyridine	5.0	0.001	0.003	16	53	47.1	94
1,4-Dichlorobenzene	7.5	0.001	ND	6	71	49.5	99
o-Cresol	200.0	0.05	0.204	12	61	46.2	92
m,p-Cresol	200.0	0.05	0.467	4	75	50.5	101
Total Cresol	200.0	0.1	0.671	6	64	96.7	97
Hexachloroethane	3.0	0.001	ND	10	58	46.6	93
Nitrobenzene	2.0	0.001	ND	2	88	50.5	101
Hexachlorobutadiene	0.5	0.001	ND	2	83	54.5	109
',6-Trichlorophenol	2.0	0.1	ND	12	73	48.3	99
,5-Trichlorophenol	400.0	01	ND	6	78	53.7	107
2,4-Dinitrotoluene	0.13	0.001	ND	30	60	40.1	80
2,4-D	10.0	0.01	ND	16	73	47.4	95
Hexachlorobenzene	0.13	0.001	ND	8	81	53.6	107
2,4,5-TP	1.0	0.01	ND	4	85	52.8	106
Pentachlorophenol	100.0	0.001	ND	26	64	43.2	86
Lindane	0.4	0.001	ND	28	75	53.9	108
Total Heptachlor	0.008	0.001	ND	16	59	98.3	98
Endrin	0.02	0.001	ND	24	76	50.5	101
Methoxychlor	10.0	0.001	ND	6	72	54.3	108
Chlordane	0.03	0.0002	ND	36	105	0.500	100
Toxaphene	0.5	0.005	ND	2	100	4.980	100

Surrogates	**% RECOVERY**
2-Fluorophenol	68
Phenol-d6	38
Nitrobenzene-d5	53
2-Fluorobiphenyl	73
2,4,6-Tribromophenol	88
Terphenyl-d14	86

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Methods: EPA SW 846-1311, 8270, 8080.
ND - Not Detected

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

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Lubbock, Texas 79424
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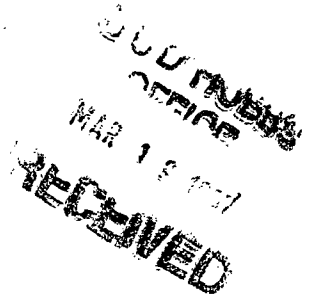
ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

February 17, 1997
Receiving Date: 02/04/97
Sample Type: Cartridge Filters
Project No: NA
Project Location: Artesia, NM

Prep Date: 02/16/97
Analysis Date: 02/16/97
Sampling Date: 02/03/97
Sample Condition: Intact
Sample Received by: JH
Project Name: NA

TA#	FIELD CODE	TCLP As (mg/L)
	EPA LIMIT =	5.0
T66926	Pipeline Cartridge Filters (Artesia)	<1.0
QC	Quality Control	5.3
REPORTING LIMIT		1.0
RPD		0
% Extraction Accuracy		90
% Instrument Accuracy		106

METHODS: EPA SW 846-1311, 6010.
CHEMIST: RR
TCLP As SPIKE: 2.0 mg/L TCLP As.
TCLP As QC: 5.0 mg/L TCLP As.

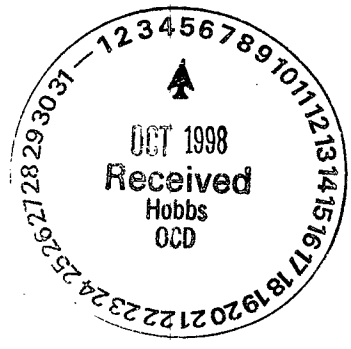


BB

2-17-97

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
OCT 1998
Received
Hobbs
OCD

66926

0 25

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378-1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore

Phone #:

FAX #:

Company Name & Address: Navajo Refining Co.

Project #:

Project Name :

Project Location: Artesia NM

Sampler Signature: Darrell Moore

ANALYSIS REQUEST

SPECIAL HANDLING

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Other	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	X=TCLP As	Turn around # of days	Fax ASAP	Hold
66926	Pipeline Cartridge Filters (Artesia)	5						X					2/3/97	13:00									X			

RECEIVED
FEB 4 1997
ENVIRONMENTAL

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	Relinquished by:	Date:	Time:	Received at Laboratory by: J.O. Hardell	Date: 2/4/97	Time: 10:10

REMARKS

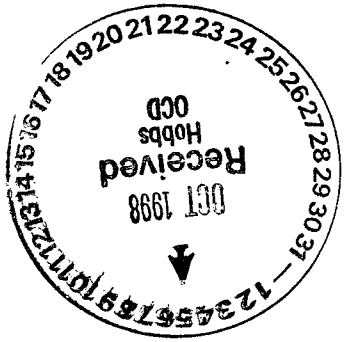
We need results ASAP

Make a composite sample from the five filters

(F) 2-18-97

I

35AL


Received
Hobbs
OCD
OCT 1998

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

January 22, 1997
Receiving Date: 01/18/97
Sample Type: Cartridge Filters
Project No: NA
Project Location: El Paso, TX

Prep Date: 01/20/97
Analysis Date: 01/22/97
Sampling Date: 01/17/97
Sample Condition: Intact & Cool
Sample Received by: DH
Project Name: NA

TA#	FIELD CODE	TCLP As (mg/L)
	EPA LIMIT =	5.0
T65963	Pipeline Cartridge Filters	<1.0
QC	Quality Control	4.8
REPORTING LIMIT		1.0
RPD		11
% Extraction Accuracy		106
% Instrument Accuracy		95

METHODS: EPA SW 846-1311, 6010.
CHEMIST: RR
TCLP As SPIKE: 2.0 mg/L TCLP As.
TCLP As QC: 5.0 mg/L TCLP As.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

1-22-97
DATE


OCT 1998
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65963

220

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore

Phone #: 505-748-3311

FAX #: 505-748-9077

Company Name & Address: Navajo Refining

Project #:

Project Name :

Project Location: El Paso TX

Sampler Signature: Darrell Moore

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	MATRIX: Other	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	SAMPLING: DATE	SAMPLING: TIME
65963	Pipeline Cartridge Filters							X					1/17/96	15:00

ANALYSIS REQUEST

BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	X TCLP As (Composite)

SPECIAL HANDLING

Turn around # of days	Fax ASAP	Hold

RECEIVED
MAR 7 1996
HOBBS

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Darrell Moore	1/17/96	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				1-18-96	10:45

REMARKS

Composite of all elements. One analysis. Need results ASAP

C/T

1-22

018aq


Received
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OCT 1998

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Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

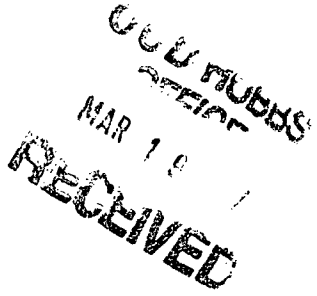
ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

October 18, 1996
Receiving Date: 10/17/96
Sample Type: Filters
Project No: NA
Project Location: El Paso, TX

Extraction Date: 10/17/96
Analysis Date: 10/18/96
Sampling Date: 10/16/96
Sample Condition: Intact & Cool
Sample Received by: ML
Project Name: NA

TA#	Field Code	TCLP As (mg/L)
T60621	Cartridge Filters-El Paso	<0.10
QC	Quality Control	4.81
Reporting Limit		0.10
RPD		0
% Extraction Accuracy		104
% Instrument Accuracy		96

METHODS: EPA SW 846-1311, 6010.
CHEMIST: RR
TCLP As SPIKE: 8.0 mg/L TCLP As.
TCLP As QC: 5.0 mg/L TCLP As.



10-18-96

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

Date


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
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6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS R[illegible] T

Project Manager: Darrell Moore

Phone #:

FAX #:

Company Name & Address: Navajo Refining

Project #:

Project Name :

Project Location: El Paso, Tx

Sampler Signature: Darrell Moore

ANALYSIS REQUEST

SPECIAL HANDLING

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
	Cartridge Filters FILTERS						X				X	4/4/06	14:20

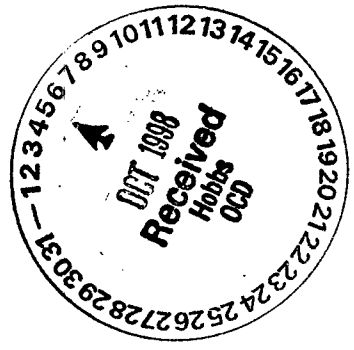
BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	TCLP PAH's					Fa.	Hold		
									X								

CH2M HILL RECEIVED APR 17 2006

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Darrell Moore	4/14/06	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

REMARKS

Need a composite sample of the six filters. One result.


OCT 1998
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6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

November 12, 1996
Receiving Date: 11/01/96
Sample Type: Cartridge Filters
Project No: NA
Project Location: NA

Prep Date: 11/06/96
Analysis Date: 11/11/96
Sampling Date: 10/31/96
Sample Condition: Intact & Cool
Sample Received by: ML
Project Name: NA

TA#	FIELD CODE	TCLP As (mg/L)
	EPA LIMIT =	5.0
T61451	Cartridge Filters - El Paso	<0.10
QC	Quality Control	5.32
REPORTING LIMIT		0.10
RPD		3
% Extraction Accuracy		105
% Instrument Accuracy		106

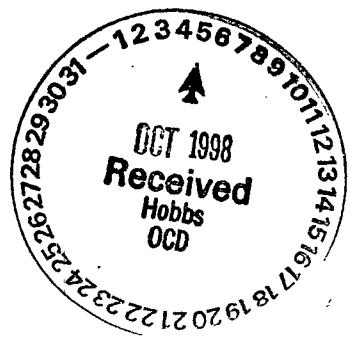
METHODS: EPA SW 846-1311, 6010.
CHEMIST: RR
TCLP As SPIKE: 1 mg/L TCLP As.
TCLP As QC: 5 mg/L TCLP As.



11-12-96

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

DATE


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TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #: 505-748-3311
FAX #: 505-748-9077

Company Name & Address: Navajo Refining Co.

Project #:
Project Name :

Project Location:
Sampler Signature: Darrell Moore

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	other	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
61449	Alky Cooling Twr Inlet	2		X					X		X		10/31/96	14:15
50	" " " Outlet	"		"					"		"		"	14:30
51	Cartridge Filters - El Paso							X				X	10/31/96	14:40

ANALYSIS REQUEST

BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	TCLP As
			See List				"		X
			"						

SPECIAL HANDLING

Turn around # of days
Fax ASAP
Hold

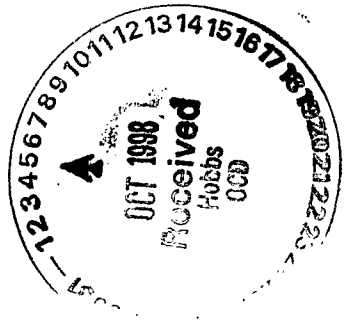
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Darrell Moore	10/31/96	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: M Rhoades	11-1-96	11:30

REMARKS
Cartridge Filters need to be composited.
We want one result.

11-13

CI

306AJ


OCT 1998
Received
Hobbs
OCD

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

November 15, 1996
Receiving Date: 11/09/96
Sample Type: Cartridge Filters
Project No: NA
Project Location: El Paso

Prep Date: 11/12/96
Analysis Date: 11/14/96
Sampling Date: 11/08/96
Sample Condition: Intact & Cool
Sample Received by: DH
Project Name: NA

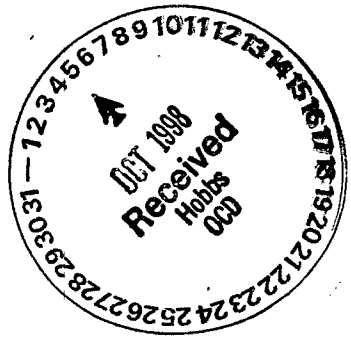
TA#	FIELD CODE	TCLP As (mg/L)
	EPA LIMIT =	5.0
T62133	Filter Pile - Cartridge Filters	<0.10
T62134	Bin #3 - Cartridge Filters	<0.10
QC	Quality Control	2.51
REPORTING LIMIT		0.10
RPD		4
% Extraction Accuracy		95
% Instrument Accuracy		105



METHODS: EPA SW 846-1311, 6010.
CHEMIST: RR
TCLP As SPIKE: 1 mg/L TCLP As.
TCLP As QC: 2.4 mg/L TCLP As.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

11-15-96
DATE


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TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore

Phone #:

FAX #:

Company Name & Address: Navajo Refining

Project #:

Project Name :

Project Location: El Paso

Sampler Signature: Darrell Moore

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Other	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE		SAMPLING: DATE	TIME
	Filter Pile - Cartridge Filters							X						11/8/96	14:00
	Bin # 3 - Cartridge Filters							X						" "	14:10

ANALYSIS REQUEST

BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	TCLP Pb				
									X				
									X				

Turn around # of days

SPECIAL HANDLING

Relinquished by: Darrell Moore **Date:** 11/8/96 **Time:** 16:15

Received by: **Date:** **Time:**

Relinquished by: **Date:** **Time:**

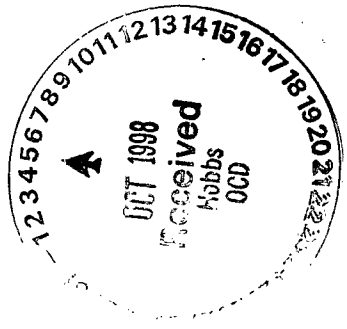
Received by: **Date:** **Time:**

Relinquished by: **Date:** **Time:**

Received at Laboratory by: **Date:** **Time:**

REMARKS

Need results as soon as possible.


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
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6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING COMPANY
Attention: Darrell Moore
501 E. Main
Artesia, NM 88210

February 25, 1997
Receiving Date: 02/17/97
Sample Type: Filter
Project No: NA
Project Location: El Paso

Prep Date: 02/21/97
Analysis Date: 02/21/97
Sampling Date: 02/14/97
Sample Condition: Intact
Sample Received by: JH
Project Name: NA

TA#	FIELD CODE	TCLP As (mg/L)
	EPA LIMIT =	5.0
T67747	Pipeline Cartridge Filters	0.49
QC	Quality Control	5.0
REPORTING LIMIT		0.10
RPD		4
% Extraction Accuracy		105
% Instrument Accuracy		100



METHODS: EPA SW 846-1311, 6010.
CHEMIST: RR
TCLP As SPIKE: 2.0 mg/L TCLP As.
TCLP As QC: 5.0 mg/L TCLP As.

Director, Dr. Blair Leftwich
Director, Dr. Bruce McDonell

2-25-97
DATE


OCT 1998
Received
Hobbs
OCD

6114.1

234

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Darrell Moore
Phone #:
FAX #:

Company Name & Address: Navajo Refining

Project #:
Project Name :

Project Location: ~~El~~ El Paso
Sampler Signature: Darrell Moore

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Other	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE		SAMPLING: DATE	TIME
67747	Pipeline Cartridge Filters							X				X		2/14/97	14:00

ANALYSIS REQUEST

BTEX, MTBE	TPH	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270	X TCLP As

SPECIAL HANDLING

Turn around # of days	Fax ASAP	Hold

J. MUBBS
FINE
FAXED

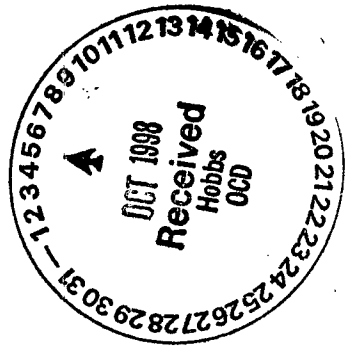
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Darrell Moore	2/14/97	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: J. C. Hartell	2/17/97	0:35

REMARKS
Need results ASAP.

0.25

61

48AG


OCT 1998
Received
Hobbs
OCD

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

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

RECEIVED
OCT 15 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Navajo Refining Artesia Facility's trickling sludge. The material was generated by cleaning out the trickling filter. I have included a certificate of waste and a chain of custody.

10-005

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Estimated Volume 1200 bbls & 30 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 10/08/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: Chris Williams TITLE: DISTRICT 1 SUPERVISOR DATE: 10/16/98

APPROVED BY: Martyne J Kieling TITLE: Env. Geologist DATE: 10-15-98


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OSTI

TELEPHONE
(505) 748-3311

EASYLINK
62905278

REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

October 7, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

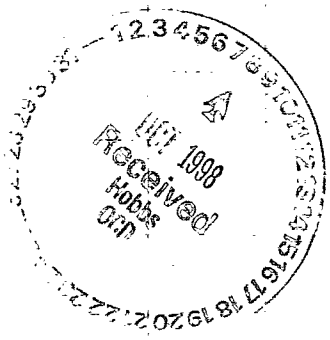
Dear Mr. Marsh:

The trickling filter at Navajo's Artesia plant was recently cleaned out to improve flow from our wastewater treatment system to the ponds. Approximately 1200 barrels of sludge from the bottom of the trickling filter and 30 yards of contaminated soil from clean up was generated and is ready for disposal.

Eventhough the trickling filter is part of our wastewater treatment system, sludges generated in aggressive biological treatment units are not included in the listing of F037 and F038 hazardous wastes. The following excerpt is from 40 CFR §261.31:

F037 -------- Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once through cooling waters segregated for treatment from other process or oily cooling waters, **sludges generated in aggressive biological treatment units as defined in §261.31(b)(2)** (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes **are not included in this listing.**

F038 ------- Petroleum refinery secondary (emulsified) oil/water/solids separation sludge--Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, **sludges and floats generated in aggressive biological treatment units as defined in §261.31(b)(2)** (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and F037, K048, and K051 wastes **are not included in this listing.**


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§261.31(b)(2)(i)

For the purposes of F037 and F038 listings, aggressive biological treatment units are defined as units which employ one of the following treatment methods: activated sludge; **trickling filter;** rotating biological contactor for the continuous accelerated biological oxidation of wastewaters; or high-rate aeration.

Although the above confirms that this sludge is not a listed hazardous waste, Navajo still must verify through a TCLP analysis that it is not characteristically hazardous. Enclosed you will find that analysis along with a Certificate of Waste Status. If approved, a truck from Controlled Recovery Incorporated will transport the sludge in a pumper truck and a truck from Lea Land Incorporated will haul the soil in 20 yard roll off bins.

If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

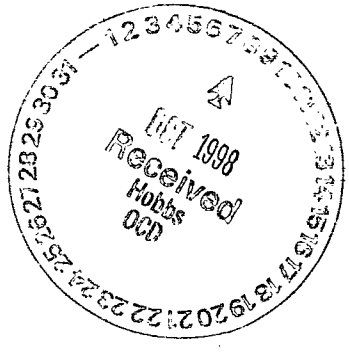
Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI


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OCD

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING CO.

Sources: PETROLEUM REFINING - TRICKLING FILTER SLUDGE

Disposal Location: CONTROLLED RECOVERY INCORPORATED

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING CO. concur with the status of the waste from the subject site.

Name BRYAN MADRID

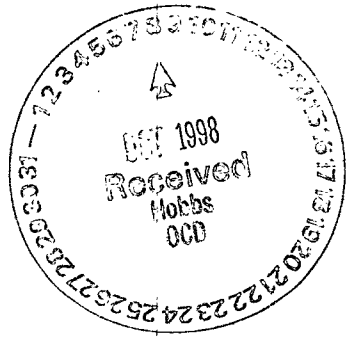
Title/Agency ENV. SPEC.

Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 10/7/98


OCT 1998
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OCD

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

October 06, 1998
Receiving Date: 09/22/98
Sample Type: Sludge
Project No: NA
Project Location: NA

Extraction Date: 09/22/98
Analysis Date: 09/23/98
Sampling Date: 09/21/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: NA

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T107868 Trickle Filter	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	77	81*	31	96
1,4-Dichlorobenzene	7.5	0.05	ND	85	11	67	106
o-Cresol	200.0	0.05	ND	73	18	66	91
m,p-Cresol	200.0	0.05	ND	77	13	115	96
Hexachloroethane	3.0	0.05	ND	92	10	71	115
Nitrobenzene	2.0	0.05	ND	83	16	84	104
Hexachlorobutadiene	0.5	0.05	ND	71	11	64	89
2,4,6-Trichlorophenol	2.0	0.05	ND	66	13	73	83
2,4,5-Trichlorophenol	400.0	0.05	ND	69	15	65	86
2,4-Dinitrotoluene	0.13	0.05	ND	81	10	97	101
2,4-D	10.0	0.05	ND	96	10	69	120
Hexachlorobenzene	0.13	0.05	ND	74	10	74	93
2,4,5-TP	1.0	0.05	ND	79	6	63	99
Pentachlorophenol	100.0	0.05	ND	71	5	49	89

Surrogates	**% RECOVERY**
2-Fluorophenol	37
Phenol-d6	29
Nitrobenzene-d5	65
2-Fluorobiphenyl	84
2,4,6-Tribromophenol	72
Terphenyl-d14	84

***NOTE: RPD out of limits.**

ND - Not Detected

Methods: EPA SW 846-1311, 8270.
CHEMIST: DG

Director, Dr. Blair Leftwich

06 OCT 98
DATE


Oct 1998
Received
Hobbs
OCD

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

October 06, 1998
Receiving Date: 09/22/98
Sample Type: Sludge
Project No: NA
Project Location: NA

Extraction Date: 09/22/98
Analysis Date: 09/23/98
Sampling Date: 09/21/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: NA

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T107868 Trickle Filter	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	96	9	109	96
1,1-Dichloroethene	0.70	0.05	ND	119	2	111	119
Methyl Ethyl Ketone	200.0	0.5	ND	89	5	87	89
Chloroform	6.00	0.05	ND	118	1	111	118
1,2-Dichloroethane	0.50	0.05	ND	88	3	96	88
Benzene	0.50	0.05	ND	117	3	75	117
Carbon Tetrachloride	0.50	0.05	ND	112	5	111	112
Trichloroethene	0.50	0.05	ND	117	5	109	117
Tetrachloroethene	0.70	0.05	ND	109	15	104	109
Chlorobenzene	100.00	0.05	ND	112	3	83	112
1,4-Dichlorobenzene	7.50	0.05	ND	119	5	108	119

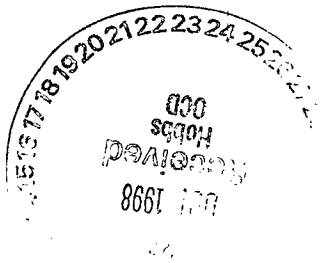
SURROGATES	% Recovery
Dibromofluoromethane	89
Toluene-d8	111
4-Bromofluorobenzene	112

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: AG

Director, Dr. Blair Leftwich

06 OCT 98
DATE


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TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

Sent By: TRACEANALYSIS; 7941298; 7 Oct'98 9:10AM; Job 625;Page 4/6

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

October 06, 1998
Receiving Date: 09/22/98
Sample Type: Sludge
Project No: NA
Project Location: NA

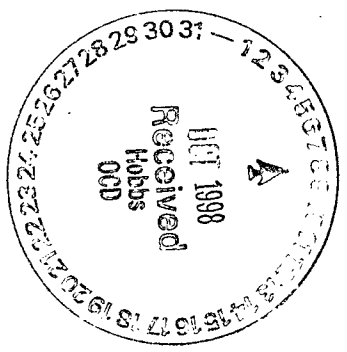
Extraction Date: 09/23/98
Analysis Date: 09/23/98
Sampling Date: 09/21/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: NA

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY (mm/yr)	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	>6.5 mm/yr	<2 >12.5	---
T107868	Trickle Filter	Non-reactive	<10	<2.5	Non-Corrosive	7.8	Nonignitable
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	---	---	---	---
% Instrument Accuracy		---	---	---	---	100	---

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

DATE


Received
OCD
Hobbs
OCT 1998

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NAVAJO REFINING
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

October 06, 1998
Receiving Date: 09/22/98
Sample Type: Sludge
Project No: NA
Project Location: NA

Sampling Date: 09/21/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: NA

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T107868	Trickle Filter	<0.10	0.31	<0.02	0.08	<0.10	<0.05	0.50	<0.01
ICV		0.98	1.0	0.98	0.99	1.0	1'.0	1.0	5.0
CCV		0.99	0.98	0.98	0.98	0.97	1.0	0.99	5.0
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.10	0.01
RPD		5	0	0	0	0	0*	6	6
% Extraction Accuracy		85	90	80	90	80	105*	85	105
% Instrument Accuracy		98	99	98	98	98	100	99	100
EXTRACTION DATE		09/22/98	09/22/98	09/22/98	09/22/98	09/22/98	09/22/98	09/22/98	09/22/98
ANALYSIS DATE		09/24/98	09/24/98	09/24/98	09/24/98	09/24/98	09/24/98	09/24/98	09/24/98

***NOTE: Used LCS for Extraction Accuracy and RPD for Ag due to matrix problems.**

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: MS
METHODS: EPA SW 846-1311, 6010B, 7470A.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba, Ag; 0.05 mg/L Hg.
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba, Ag; 5.0 mg/L Hg.

Director, Dr. Blair Leftwich

06 Oct 98
Date

Sent By: TRACEANALYSIS; 7941298; 7 Oct'98 9:09AM; Job 625;Page 3/6

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OCT 1998

107863-68

Page 1 of 1

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 384 / 385

Company Name: NAVAJO REFINING CO. Phone #: (505) 748-3311
Address: 501 E. MAIN Fax #: (505) 748-9077
Contact Person: BRYAN MADRID
Invoice to: (If different from above)
Project #: Project Name:
Project Location: Sampler Signature: Bryan Madrid

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
107863	HCS-1C	1			X						X	9/21/98	9:00
64	HCS-2C	1			X						X	9/21/98	9:10
65	HCS-3C	1			X						X	9/21/98	9:15
66	HCS-4C	1			X						X	9/21/98	9:20
67	HCS-5C	1			X						X	9/21/98	9:30
68	TRICKLE FILTER	1	1L			[redacted]	X				X	9/21/98	8:00

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH Method 418.1	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
		X			X	X	X	X							
		X			X	X	X	X							
		X			X	X	X	X							
		X			X	X	X	X							
		X			X	X	X	X							
					X	X	X	X							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Bryan Madrid	9/21/98	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Melissa Wardlaw	9-22-98	10:20 A

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp -2 °
Log-in Review ONS

REMARKS:

9/24/98

10/7

Carrier # Federal 2nd Day

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

7 Oct '98 12:22PM; Job 650;Page 1/1
7941298;
Sent By: TRACEANALYSIS;

Received
OCT 1998
Hobbs
OCD

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

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

RECEIVED
NOV 2 : 1998
nmental Bureau
servation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from the Navajo Refining Artesia facility. I have provided a certificate of waste.

Note: Triple Rinsed & Crushed MJK

11-004

Estimated Volume ~~150 drums~~ 400 drums See attached MJK cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 11/18/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn J. Kitz TITLE: Env Geologist DATE: 11-24-98



TELEPHONE
(505) 748-3311

EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

November 11, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

Enclosed you will find a Certificate of Waste Status for crushed, triple rinsed fifty-five gallon drums that I would like to get profiled into your facility. These drums at one time contained catalysts, oil, and chemicals used in a petroleum refinery.

If approved, approximately 150 drums will be hauled by Lea Land Incorporated in 20 yard roll off bins. If you have any questions, please call me at (505) 748-3311. Thank you for your time.

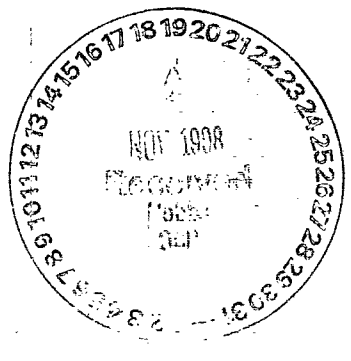
Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI


NOV 1998

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: NAVAJO REFINING Co.

Sources: PETROLEUM REFINING - EMPTY 55 GALLON DRUMS

Disposal Location: CRI

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned, as the agent for NAVAJO REFINING Co concur with the status of the waste from the subject site.

Name BRYAN MADRID

Title/Agency ENV. SPEC

Address 501 E. MAIN

ARTESIA, NM 88210

Signature Bryan Madrid

Date 11/11/98


MAY 1998

CRI

CONTROLLED RECOVERY INC.

P.O. BOX 388, HOBBS, NM 88241
(505) 393-1079 • FAX (505) 393-3615

December 16, 1998

DEC 18

Martyne J. Kieling
2040 South Pacheco Street
Santa Fe, NM 87505

RE: Navajo Refining C-138 #11-004, dated 11-18-98

Dear Ms. Kieling:

I am confirming our telephone conversation yesterday, 12-15-98, to increase the volume of drums from 150 to 400, with your verbal approval.

Thanks for your help.

Sincerely,

Ken Marsh

Cc: Bryan Madrid
Navajo Refining
P. O. Box 159
Artesia, NM 88211-0159

MK 12-21-98

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 10:31	Date 12-14-98

Originating Party	Other Parties
Ken Marsh · CRI	Marilyn Kicling

Subject

Amoco Crude oil tank Floating ~~Seal~~ Roof Foam Seal.

Discussion

Tested For RCT Benzene & Semi Vol

Conclusions or Agreements

OK unit For G138

Distribution

Signed Marilyn Kicling

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

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

RECEIVED
DEC 21 1998
Environmental Bureau
Oil Conservation Division

Form C-1
Originated 8/8

Submit Origi
Plus 1 C
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P. O. Box 388, Hobbs	8. State NM
7. Location of Material (Street Address or ULSTR) 501 E. Main	Artesia, NM

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

1) Hydrocarbon contaminated soil - appx. 60 yds.
2) TK62 soil - appx. 60 yds.
3) CBO soil - appx. 60 yds.
4) D-363 Catalyst - appx. 30 yds.
5) FCC catalyst fines - appx. 150 yds.
6) Asphalt sample cans - appx. 15 drums

Enclosed please find a certificate of waste, analytical data, chain of custody, where applicable and prior approvals.

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

SIGNATURE: _____ TITLE: Manager DATE: 12-16-98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. 505-393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne J. Kelly TITLE: Env. Geologist DATE: 12-21-98



TELEPHONE
(505) 748-3311

EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCTG
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

December 14, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get the following wastes profiled into your facility.

1) Hydrocarbon contaminated soil
2) Tk 62 soil
3) CBO soil
4) D-363 Catalyst
5) FCC catalyst fines
6) Asphalt sample cans

Previously Accepted

Enclosed you will find a Certificate of Waste Status for each media along with an analysis where applicable.

If you have any questions, please call me at (505) 748-3311. Thank you for your time in this matter.

Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI 1998

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: **Hydrocarbon contaminated soil**

ESTIMATED VOLUME: **60 yards**

GENERATING PROCESS: **Soil came from various spill clean ups from around the plant.**

REMARKS: **Analysis enclosed**

NMOCD FACILITY: **Controlled Recovery Incorportated**

TRUCKING COMPANY: **Lea Land Incorporated**

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Bryan Madrid
SIGNATURE

NAME: BRYAN MADRID
PRINTED

ADDRESS: 501 E. MAIN
ARTESIA, NM 88210

DATE: 12/14/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: **Tk 62 soil**

ESTIMATED VOLUME: **60 yards**

GENERATING PROCESS: **This soil came from underneath a slurryt oil tank (Tk 62) that was removed from the plant.**

REMARKS: **Analysis enclosed**

NMOCD FACILITY: **Controlled Recovery Incorportated**

TRUCKING COMPANY: **Lea Land Incorporated**

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Bryan Madrid
SIGNATURE

NAME: BRYAN MADRID
PRINTED

ADDRESS: 501 E. MAIN
ARTESIA, NM 88210

DATE: 12/14/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: **CBO Soil**

ESTIMATED VOLUME: **60 yards**

GENERATING PROCESS: **This soil came from clean up of an area around the CBO rack at Navajo's Artesia facility.**

REMARKS: **Analysis enclosed**

NMOCD FACILITY: **Controlled Recovery Incorportated**

TRUCKING COMPANY: **Lea Land Incorporated**

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Bryan Madrid
SIGNATURE

NAME: BRYAN MADRID
PRINTED

ADDRESS: 501 E. MAIN
ARTESIA, NM 88210

DATE: 12/14/98

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
L-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia NM, 88210

December 10, 1998
Receiving Date: 11/6/98
Sample Type: Soil
Project No: NA
Project Location:N/A

Extraction Date: 11/9/98
Analysis Date: 11/10/98
Sampling Date: 11/5/98
Sample Condition: Intact & Cool
Sample Received by: NG
Project Name: N/A

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T112044 Contam Soil Conc.	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.001	ND	101	3	155*	101
1,1-Dichloroethene	0.70	0.001	ND	90	2	103	90
Methyl Ethyl Ketone	200.0	0.001	ND	84	6	93	84
Chloroform	6.00	0.001	ND	89	9	100	89
1,2-Dichloroethane	0.50	0.001	ND	95	14	106	95
Benzene	0.50	0.001	ND	96	4	105	96
Carbon Tetrachloride	0.50	0.001	ND	94	5	133	94
Trichloroethene	0.50	0.001	ND	91	2	101	91
Tetrachloroethene	0.70	0.001	ND	95	2	103	95
Chlorobenzene	100.00	0.001	ND	97	2	99	97
1,4-Dichlorobenzene	7.50	0.001	ND	90	0	100	90

SURROGATES	% Recovery
Dibromofluoromethane	92
Toluene-d8	84
4-Bromofluorobenzene	82

*EA out of control limits are 70-130.

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: JS

Director, Dr. Blair Leftwich

12-10-98
DATE

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 10, 1998
Receiving Date: 11/6/98
Sample Type: Solid
Project No: NA
Project Location: NA

Extraction Date: 11/10/98
Analysis Date: 11/25/98
Sampling Date: 11/5/98
Sample Condition: I & C
Sample Received by: NG
Project Name: N/A

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T112044 Contam Soil Conc.	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	86	1	29	108
1,4-Dichlorobenzene	7.5	0.05	ND	83	14	56	104
o-Cresol	200.0	0.05	ND	88	19	43	110
m,p-Cresol	200.0	0.05	ND	86	19	74	108
Hexachloroethane	3.0	0.05	ND	84	15	63	105
Nitrobenzene	2.0	0.05	ND	82	14	63	103
Hexachlorobutadiene	0.5	0.05	ND	84	14	62	105
2,4,6-Trichlorophenol	2.0	0.05	ND	85	18	51	106
2,4,5-Trichlorophenol	400.0	0.05	ND	88	17	53	110
2,4-Dinitrotoluene	0.13	0.05	ND	84	18	46	105
2,4-D	10.0	0.05	ND	89	7	9	111
Hexachlorobenzene	0.13	0.05	ND	86	16	62	108
2,4,5-TP	1.0	0.05	ND	74	4	24	93
Pentachlorophenol	100.0	0.05	ND	93	15	49	116

Surrogates	**% RECOVERY**
2-Fluorophenol	34
Phenol-d6	24
Nitrobenzene-d5	68
2-Fluorobiphenyl	57
2,4,6-Tribromophenol	54
Terphenyl-d14	68

ND - Not Detected

Methods: EPA SW 846-1311, 8270.
CHEMIST: DG

Director, Dr. Blair Leftwich

12-10-98
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ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 11, 1998
Receiving Date: 11/6/98
Sample Type: Soil
Project No: NA
Project Location: N/A

Extraction Date: 11/9/98
Analysis Date: 11/10/98
Sampling Date: 11/5/98
Sample Condition: Intact & Cool
Sample Received by: NG
Project Name: N/A

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T112045 TK 62 Soil Conc.	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	101	3	155*	101
1,1-Dichloroethene	0.70	0.05	ND	90	2	103	90
Methyl Ethyl Ketone	200.0	0.5	ND	84	6	93	84
Chloroform	6.00	0.05	ND	89	9	100	89
1,2-Dichloroethane	0.50	0.05	ND	95	14	106	95
Benzene	0.50	0.05	ND	96	4	105	96
Carbon Tetrachloride	0.50	0.05	ND	94	5	133	94
Trichloroethene	0.50	0.05	ND	91	2	101	91
Tetrachloroethene	0.70	0.05	ND	95	2	103	95
Chlorobenzene	100.00	0.05	ND	97	2	99	97
1,4-Dichlorobenzene	7.50	0.05	ND	90	0	100	90

SURROGATES	% Recovery
Dibromofluoromethane	92
Toluene-d8	90
4-Bromofluorobenzene	80

*EA out of control limits are 70-130.

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: JG

Director, Dr. Blair Leftwich

12-11-98
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ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 10, 1998
Receiving Date: 11/6/98
Sample Type: Solid
Project No: NA
Project Location: NA

Extraction Date: 11/10/98
Analysis Date: 11/21/98
Sampling Date: 11/5/98
Sample Condition: I & C
Sample Received by: NG
Project Name: N/A

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T112045 TK 62 Soil Conc.	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	86	1	29	108
1,4-Dichlorobenzene	7.5	0.05	ND	83	14	56	104
o-Cresol	200.0	0.05	ND	88	19	43	110
m,p-Cresol	200.0	0.05	ND	86	19	74	108
Hexachloroethane	3.0	0.05	ND	84	15	63	105
Nitrobenzene	2.0	0.05	ND	82	14	63	103
Hexachlorobutadiene	0.5	0.05	ND	84	14	62	105
2,4,6-Trichlorophenol	2.0	0.05	ND	85	16	51	106
2,4,5-Trichlorophenol	400.0	0.05	ND	88	17	53	110
2,4-Dinitrotoluene	0.13	0.05	ND	84	18	46	105
2,4-D	10.0	0.05	ND	89	7	9	111
Hexachlorobenzene	0.13	0.05	ND	86	16	62	108
2,4,5-TP	1.0	0.05	ND	74	4	24	93
Pentachlorophenol	100.0	0.05	ND	93	15	49	116

Surrogates	**% RECOVERY**
2-Fluorophenol	46
Phenol-d6	37
Nitrobenzene-d5	61
2-Fluorobiphenyl	50
2,4,6-Tribromophenol	66
Terphenyl-d14	62

ND - Not Detected

Methods: EPA SW 846-1311, 8270.
CHEMIST: DG

Director, Dr. Blair Leftwich

12-10-98
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ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 11, 1998
Receiving Date: 11/6/98
Sample Type: Soil
Project No: NA
Project Location: N/A

Extraction Date: 11/9/98
Analysis Date: 11/10/98
Sampling Date: 11/5/98
Sample Condition: Intact & Cool
Sample Received by: NG
Project Name: N/A

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T112046 CBO Soil Conc.	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	101	3	155*	101
1,1-Dichloroethene	0.70	0.05	ND	90	2	103	90
Methyl Ethyl Ketone	200.0	0.5	ND	84	6	93	84
Chloroform	6.00	0.05	ND	89	9	100	89
1,2-Dichloroethane	0.50	0.05	ND	95	14	106	95
Benzene	0.50	0.05	ND	96	4	105	96
Carbon Tetrachloride	0.50	0.05	ND	94	5	133	94
Trichloroethene	0.50	0.05	ND	91	2	101	91
Tetrachloroethene	0.70	0.05	ND	95	2	103	95
Chlorobenzene	100.00	0.05	ND	97	2	99	97
1,4-Dichlorobenzene	7.50	0.05	ND	90	0	100	90

SURROGATES	% Recovery
Dibromofluoromethane	95
Toluene-d8	87
4-Bromofluorobenzene	80

*EA out of control limits are 70-130.

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: JS

Director, Dr. Blair Leftwich

12-11-98
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ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 10, 1998
Receiving Date: 11/6/98
Sample Type: Soild
Project No: NA
Project Location: NA

Extraction Date: 11/10/98
Analysis Date: 11/21/98
Sampling Date: 11/5/98
Sample Condition: I & C
Sample Received by: NG
Project Name: N/A

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T112046 CBO Soil Conc.	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	86	1	29	108
1,4-Dichlorobenzene	7.5	0.05	ND	83	14	56	104
o-Cresol	200.0	0.05	ND	88	19	43	110
m,p-Cresol	200.0	0.05	ND	86	19	74	108
Hexachloroethane	3.0	0.05	ND	84	15	63	105
Nitrobenzene	2.0	0.05	ND	82	14	63	103
Hexachlorobutadiene	0.5	0.05	ND	84	14	62	105
2,4,6-Trichlorophenol	2.0	0.05	ND	85	16	51	106
2,4,5-Trichlorophenol	400.0	0.05	ND	88	17	53	110
2,4-Dinitrotoluene	0.13	0.05	ND	84	18	46	105
2,4-D	10.0	0.05	ND	89	7	9	111
Hexachlorobenzene	0.13	0.05	ND	86	16	62	108
2,4,5-TP	1.0	0.05	ND	74	4	24	93
Pentachlorophenol	100.0	0.05	ND	93	15	49	116

Surrogates	**% RECOVERY**
2-Fluorophenol	38
Phenol-d6	27
Nitrobenzene-d5	74
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	68
Terphenyl-d14	72

ND - Not Detected

Methods: EPA SW 846-1311, 8270.
CHEMIST: DG

Director, Dr. Blair Leftwich

12-10-98
DATE

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ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 9,1998
Receiving Date: 11/6/98
Sample Type: Soil
Project No: N/A
Project Location: N/A

Sampling Date: 11/5/98
Sample Condition: I & C
Sample Received by: NG
Project Name: Soil

TCLP METALS

TA#	FIELD CODE	As (mg/L)	Se (mg/L)	Cd (mg/L)	Cr (mg/L)	Pb (mg/L)	Ag (mg/L)	Ba (mg/L)	Hg (mg/L)
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T112044	Contam Soil	0.15	0.25	<0.02	<0.05	0.12	<0.05	1.30	<0.010
T112045	TK 62 Soil	0.36	0.25	<0.02	<0.05	0.42	<0.05	0.20	<0.010
T112046	CBO Soil	0.56	0.33	<0.02	<0.05	0.17	<0.05	0.25	<0.010
ICV		1.0	1.0	1.0	1.0	1.0	0.20	1.0	0.0052
CCV		1.0	1.0	1.0	1.0	1.0	0.20	1.0	0.0055
REPORTING LIMIT		0.10	0.10	0.02	0.05	0.10	0.05	0.10	0.010
RPD		0	0	0	0	5	2	6	0
% Extraction Accuracy		100	90	95	95	95	102	95	106
% Instrument Accuracy		100	100	100	100	100	100	100	108
PREP DATE		11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/8/98	11/7/98
ANALYSIS DATE		11/25/98	11/25/98	11/25/98	11/25/98	11/25/98	11/25/98	11/25/98	11/9/98

METHODS: EPA SW 846-1311, 6010B, 7470.
CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: BP
TCLP METALS SPIKE: 2.0 mg/L As, Se Cd, Cr, Pb, Ba: 0.40 mg/L Ag Hg SPIKE 0.050 mg/L
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba: 0.20 mg/L Ag Hg CV: 0.0050 mg/L

Director, Dr. Blair Leftwich

12-9-98
Date

Sent By: TRACEANALYSIS; 7941298; 11 Dec'98 3:12PM;Job 165;Page 1/8

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Sent By: TRACEANALYSIS; 7941298; 11 Dec'98 3:13PM;Job 165;Page 2/8

ANALYTICAL RESULTS FOR
Navajo Refining Co.
Attention: Bryan Madrid
501 E. Main
Artesia, NM 88210

December 11, 1998
Receiving Date: 11/06/98
Sample Type: Solids/Sludge
Project No: N/A
Project Location: N/A

Extraction Date: 11/10/98
Analysis Date: 11/10/98
Sampling Date: 10/06/98
Sample Condition: Intact & Cool
Sample Received By: NG
Project Name: N/A

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
T112044	Contam Soil	Non-reactive	<10	<2.5	Non-corrosive	8.6	Nonignitable
T112045	TK 62 Soil	Non-reactive	<10	<2.5	Non-corrosive	7.4	Nonignitable
T112046	CBO Soil	Non-reactive	<10	<2.5	Non-corrosive	7.5	Nonignitable
RPD		0	0	0	0	0	0
% Extraction Accuracy		100	100	100	100	100	100
% Instrument Accuracy		---	---	---	---	---	---

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

12-11-98
DATE

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: **D-363 Catalyst**

ESTIMATED VOLUME: **30 yards**

GENERATING PROCESS: **Catalyst strips hydorgen chloride from reformate in the Continuous Catalytic Regeneration (CCR) Reformer Unit.**

REMARKS: **Ealier analysis enclosed - Process has not changed.**

NMOCD FACILITY: **Controlled Recovery Incorportated**

TRUCKING COMPANY: **Lea Land Incorproated**

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Bryan Madrid
SIGNATURE

NAME: BRYAN MADRID
PRINTED

ADDRESS: 501 E. MAIN
ARTESIA, NM 88210

DATE: 12/14/98

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ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 Main Street
Artesia, NM 88210

July 21, 1998
Receiving Date: 07/03/98
Sample Type: Catalyst
Job Number:
Project Location:

Extraction Date: 07/06/98
Analysis Date: 07/07/98
Sampling Date: 07/01/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name:

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T102038/982860 D-363 Chloride Guard	CV	RPD	%EA	%IA
Vinyl chloride	0.20	0.050	ND	120	1	111	120
1,1-Dichloroethene	0.70	0.050	ND	87	0	110	87
Methyl Ethyl Ketone	200.0	0.50	ND	84	5	101	84
Chloroform	6.00	0.050	ND	89	1	111	89
1,2-Dichloroethane	0.50	0.050	ND	87	1	105	87
Benzene	0.50	0.050	ND	86	1	111	86
Carbon Tetrachloride	0.50	0.050	ND	102	1	97	102
Trichloroethene	0.50	0.050	ND	87	0	109	87
Tetrachloroethene	0.70	0.050	ND	89	0	114	89
Chlorobenzene	100.00	0.050	ND	85	0	110	85
1,4-Dichlorobenzene	7.50	0.050	ND	86	1	109	86

SURROGATES	**% Recovery**
Dibromofluoromethane	94
Toluene-d8	99
4-Bromofluorobenzene	98

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: DG

Director, Dr. Blair Leftwich

7-21-98
DATE

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ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 Main Street
Artesia, N.M. 88210

July 21, 1998
Receiving Date: 07/03/98
Sample Type: Catalyst
Project #:
Project Location:

Extraction Date: 7/11/98
Analysis Date: 07/18/98
Sampling Date: 07/01/98
Sample Condition: I & C
Sample Received by: VW
Project Name:

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T102038/982860 D-363 Chloride Guard	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	68	17	44	85
1,4-Dichlorobenzene	7.5	0.05	ND	80	6	66	100
o-Cresol	200.0	0.05	ND	70	6	55	88
m,p-Cresol	200.0	0.05	0.07	64	4	91	80
Hexachloroethane	3.0	0.05	ND	66	4	56	83
Nitrobenzene	2.0	0.05	ND	78	1	75	98
Hexachlorobutadiene	0.5	0.05	ND	87	4	69	109
2,4,6-Trichlorophenol	2.0	0.05	ND	82	11	70	103
2,4,5-Trichlorophenol	400.0	0.05	ND	86	9	76	108
2,4-Dinitrotoluene	0.13	0.05	ND	74	9	76	93
2,4-D	10.0	0.05	ND	91	86*	2	114
Hexachlorobenzene	0.13	0.05	ND	80	4	67	100
2,4,5-TP	1.0	0.05	ND	93	53*	74	116
Pentachlorophenol	100.0	0.05	ND	79	3	60	99

Surrogates	**% RECOVERY**
2-Fluorophenol	47
Phenol-d6	40
Nitrobenzene-d5	86
2-Fluorobiphenyl	76
2,4,6-Tribromophenol	93
Terphenyl-d14	87

ND - Not Detected

***NOTE: RPD out of control limits due to concentration of sample.**

Methods: EPA SW 846-1311, 8270.
CHEMIST: MB

Director, Dr. Blair Leftwich

7-21-98
DATE

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ANALYTICAL REPORT

CLIENT NAVAJO REFINING CO.
501 E. MAIN
ARTESIA, NM 88211

SAMPLE NO. : 982860
INVOICE NO.: 22102386
REPORT DATE: 07-13-98
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : D-363 Chloride Guard
SAMPLE TYPE .....: Solid
SAMPLED BY .....: B Madrid
SUBMITTED BY ....: B Madrid
SAMPLE SOURCE ...: --

AUTHORIZED BY : B. MADRID
CLIENT P.O. : --
SAMPLE DATE ...: 07-01-98
SUBMITTAL DATE : 07-02-98
EXTRACTION DATE: --

REMARKS -

Detection limit was raised as sample was analyzed diluted to avoid matrix interference for the following parameter(s): Barium.

TCLP Metals

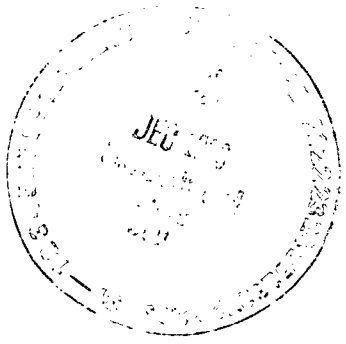
D A T A T A B L E

Parameter	Result	Unit	Detection Limit	Analysis Date	Test Method	Analyst
Arsenic (TCLP)	<0.050	mg/L	0.050	07-09-98	SW846 7061	N. Munir
Barium (TCLP)	<25.	mg/L	25.	07-10-98	SW846 7080A	N. Munir
Cadmium (TCLP)	<0.25	mg/L	0.25	07-10-98	SW846 7130	N. Munir
Chromium (TCLP)	<0.50	mg/L	0.50	07-10-98	SW846 7190	N. Munir
Lead (TCLP)	<0.75	mg/L	0.75	07-09-98	SW846 7420	N. Munir
Mercury (TCLP)	<0.010	mg/L	0.010	07-09-98	SW846 7471A	N. Munir
Selenium (TCLP)	<0.050	mg/L	0.050	07-08-98	SW846 7741A	N. Munir
Silver (TCLP)	<0.25	mg/L	0.25	07-10-98	SW846 7760A	N. Munir

ANALYTICAL RESULT(S) REPORTED HEREIN APPLY ONLY TO THE SAMPLE(S) TESTED. FURTHERMORE, THIS REPORT CAN ONLY BE COPIED IN ITS ENTIRETY.

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MANAGING DIRECTOR



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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
NAVAJO REFINING CO.
Attention: Bryan Madrid
501 Main Street
Artesia, NM 88210

July 22, 1998
Receiving Date: 07/03/98
Sample Type: Catalyst
Project No:
Project Location:

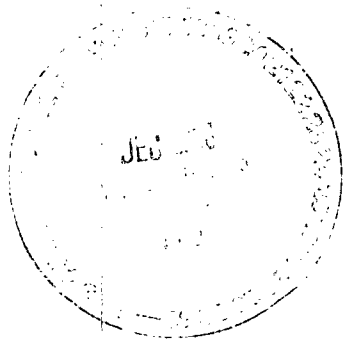
Extraction Date: 7/11/98
Analysis Date: 7/18/98
Sampling Date: 7/01/98
Sample Condition: I & C.
Sample Received by: VW
Project Name:

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
T102038	D-363 Chlordide Guard	Non-reactive	<10	<2.5	Non-corrosive	11.7	Nonignitable
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	---	---	---	---
% Instrument Accuracy		---	---	---	---	100	---

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

7-22-98
DATE



TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: NAVAJO REFINING CO. Phone #: (505) 748-3311
Address: 501 E. MAIN Fax #:
Contact Person: BRYAN MADRID
Invoice to: (If different from above)
Project #: Project Name:
Project Location: Sampler Signature: Bryan Madrid

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Cont Type	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
982860	D-363 CHLORIDE Guard	1	1L					X			X	X	7/1/98	15:00

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
					X	X	X	X							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Bryan Madrid	7/1/98	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				7/2/98	10:45

LAB USE ONLY
Intact (Y) N
Headspace Y N N/A
Temp 1°
Log-in Review

REMARKS:

Carrier # LONESTAR 1043443

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: **FCC Catalyst Fines**

ESTIMATED VOLUME: **30 Supersacks**

GENERATING PROCESS: **These are the fine particles from catalyst collected in the cyclones at the FCC Unit during the regeneration process.**

REMARKS: **This waste has been approved in the past and is generated on a regular basis.**

NMOCD FACILITY: **Controlled Recovery Incorportated**

TRUCKING COMPANY: **Lea Land Incorporated**

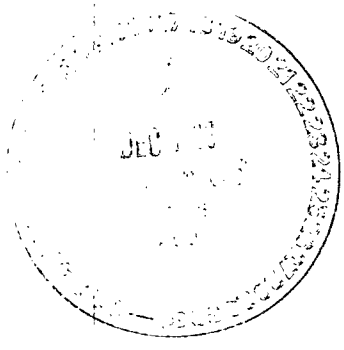
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Bryan Madrid
SIGNATURE

NAME: BRYAN MADRID
PRINTED

ADDRESS: 501 E. MAIN
ARTESIA, NM 88210

DATE: 12/14/98



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR: **Navajo Refining Company**

ADDRESS: **501 East Main**

GENERATING SITE: **Navajo Refining Company**

COUNTY: **Eddy**

STATE: **NM**

TYPE OF WASTE: **Asphalt sample cans**

ESTIMATED VOLUME: **15 drums**

GENERATING PROCESS: **Asphalt samples are taken on a daily basis. After an asphalt sample has been removed from the can for analysis, the contaminated can is put into a barrel until approved for disposal.**

REMARKS: **This waste has been OCD approved in the past and is generated on a regular basis.**

NMOCD FACILITY: **Controlled Recovery Incorportated**

TRUCKING COMPANY: **Lea Land Incorporated**

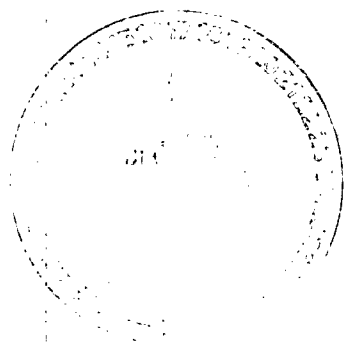
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT: Bryan Madrid
SIGNATURE

NAME: BRYAN MADRID
PRINTED

ADDRESS: 501 E. MAIN
ARTESIA, NM 88210

DATE: 12/14/98



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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Street	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from the Navajo Artesia facility's FCC Cat fines. The material has been approved in the past. I have included a certificate of waste.

10-001

Estimated Volume 25 supersacs cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

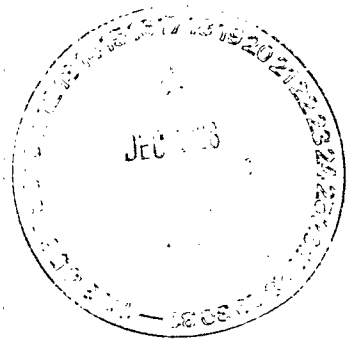
SIGNATURE: Billie Charo TITLE: Envir. Compiance Manager DATE: 10/02/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr Spec DATE: 10/7/98

APPROVED BY: _____ TITLE: " DATE: "



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

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

Form C-1
Originated 8/8

Submit Orig
Plus 1 C
to appropr
District O

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Navajo Refining
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Lea Land
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 501 E Main Street	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from the Navajo Artesia facility's asphalt. The material has been approved in the past. I have included a certificate of waste.

10-002

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

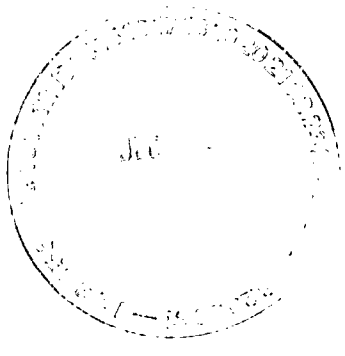
SIGNATURE: Billie Charo TITLE: Envir. Compiance Manager DATE: 10/02/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr Spec DATE: 10/7/98

APPROVED BY: _____ TITLE: " DATE: "



TELEPHONE
(505) 748-3311

EASYLINK
62905278

Navajo REFINING COMPANY

501 EAST MAIN STREET • P. O. BOX 159
ARTESIA, NEW MEXICO 88211-0159

FAX
(505) 746-6410 ACCT
(505) 746-6155 EXEC
(505) 748-9077 ENGR
(505) 746-4438 P / L

September 28, 1998

Ken Marsh
CRI Inc.
P.O. Box 369
Hobbs, NM 88241

Dear Mr. Marsh:

I would like to get approximately 300 pipeline filters profiled into your facility. These filters are used to separate solids from finished products being transferred in pipelines to our El Paso terminal. They are changed out on a regular basis and stored in 20 yard roll off bins until approved for disposal.

In a November 10, 1997 letter, Mr. John M. Tymkowych of the New Mexico Environmental Department (NMED), Hazardous and Radioactive Material Bureau (HRMB), confirms that process knowledge and previous analyses are sufficient evidence to prove this waste stream is non hazardous. With that in mind, since process has not changed, I have only enclosed a Certificate of Waste Status along with a copy of the above mentioned letter.

I have also enclosed a Certificate of Waste Status for the usual 25 supersacks of FCC cat fines and 5 drums of asphalt sample cans.

If approved, a truck from Lea Land Incorporated will haul these wastes in 20 yard roll off bins to your facility.

If you have any questions concerning this matter, please call me at (505) 748-3311. Thank you for your time.

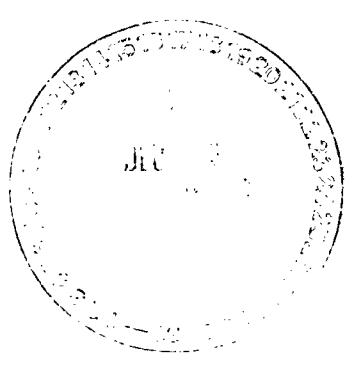
Sincerely,

Bryan Madrid

Bryan Madrid
Environmental Specialist

Encl.

file: CRI



112044-Ale

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste, 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #: 1104

Company Name: NAVAJO REFINING CO. Phone #: (505) 748-3311
Address: 501 E MAIN Fax #: (505) 748-9077
Contact Person: BRYAN MADRID
Invoice to: (If different from above)
Project #: Project Name:
Project Location: Sampler Signature: Bryan Madrid

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
41	CONTAM SOIL	1	1L		X						X	11/5/98	15:30
42	TK-62 SOIL	1	1L		X						X	11/5/98	15:45
43	CRO SOIL	1	1L		X						X	11/5/98	15:50

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH					Turn Around Time if different from standard	Hold
					X	X	X	X											
					X	X	X	X											
					X	X	X	X											

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Bryan Madrid	11/5/98	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by: Mike Owen	Date: 11-6-98	Time: 8:45am

LAB USE ONLY
Intact Y / N
Preservation Y / N
Temp. 5°C
Bottles Provided

REMARKS:

12/11

Carrier # Fed ex #262468294 4

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

Sent By: TRACEANALYSIS; 7941298; 12/17/98 THU 13:13 FAX 7461211 DIVISION ORDER 17 Dec'98 10:28AM;Job 365;Page 1/1 003



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

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

Form C-1
Originated 8/8

RECEIVED
DEC 31 1998
Environmental Bureau
Oil Conservation Division

Submit Orig
Plus 1 C
to appropr
District Of

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Amoco Pipeline 5. Originating Site Artesia Statio
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter unknown
3. Address of Facility Operator P. O. Box 388, Hobbs	8. State NM
7. Location of Material (Street Address or ULSTR) Artesia Station	

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

Foam tank seal, crude oil contaminated. I have included analytical data, chain of custody and a certificate of waste.

12-004

Estimated Volume 3 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: Manager DATE: 12-15-98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. 505-393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: _____ TITLE: Env Geologist DATE: 12-21-98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Amoco Pipeline Co

ADDRESS 502 N. West Ave, Levelland tx

GENERATING SITE Artesia Station, Artesia, N.M.

COUNTY _____ **STATE** N.M.

TYPE OF WASTE Foam tank Seal, Plastic bags & Crude Oil contaminated

ESTIMATED VOLUME 3 cubic yards

GENERATING PROCESS Pipeline gathering facility with breakout tank w/ floating roof. Seal is from floating roof in plastic bags.

REMARKS _____

NMOCD FACILITY _____

TRUCKING COMPANY To be determined by Amoco Pipeline

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT James D Lutter
SIGNATURE

NAME James D. Lutter
PRINTED

ADDRESS 502 N. West Ave
Levelland TX 79336

DATE 12/15/98

Amoco Pipeline Company
Southwest Business District
502 North West Avenue
Levelland Texas 79336-3914
806-897-7000

December 14, 1998

Controlled Recovery Inc.
P.O. Box 388
Hobbs, NM 88241

RE: Knowledge of process statement

Amoco Pipeline Company has determined through current analysis (benzene) and other past analysis of materials contaminated by crude oil that the materials represented as "plastic bags and foam tank seal" will pass TCLP analysis for volatiles.

James Lutter
EH&S Coordinator

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1295

ANALYTICAL RESULTS FOR
AMOCO PIPELINE COMPANY

December 9, 1998
Receiving Date: 11/25/98
Sample Type: Foam
Project No:
Project Location: Artesia Station

Attention: Jim Lutter
502 N. West Ave.
Levelland, Tx. 79336

Sampling Date: 11/25/98
Sample Condition: I & C
Sample Received by: VW
Project Name: Artesia Tank Seal

TCLP METALS

TA#	FIELD CODE	As (mg/L)	Se (mg/L)	Cd (mg/L)	Cr (mg/L)	Pb (mg/L)	Ag (mg/L)	Ba (mg/L)	Hg (mg/L)
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T113647	JDL122598-01	<0.10	<0.10	<0.02	0.22	0.16	<0.05	<0.10	<0.010
ICV		1.0	0.99	1.0	1.0	0.98	0.20	0.98	0.0042
CCV		1.0	0.97	1.0	1.0	0.96	0.20	0.98	0.0045
REPORTING LIMIT		0.10	0.10	0.02	0.05	0.10	0.05	0.10	0.010
RPD		10	0	0	0	13	2	0	6
% Extraction Accuracy		100	95	100	100	110	108	100	90
% Instrument Accuracy		100	98	100	100	97	100	98	92
PREP DATE		11/29/98	11/29/98	11/29/98	11/29/98	11/29/98	11/29/98	11/29/98	11/27/98
ANALYSIS DATE		11/30/98	11/30/98	11/30/98	11/30/98	11/30/98	11/30/98	11/30/98	12/02/98

METHODS: EPA 846-6010B, 3050B, 7471A
CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: BP
TOTAL METALS SPIKE: 2.0 mg/L As, Se Cd, Cr, Pb, Ba: 0.50 mg/L Ag Hg SPIKE 0.0050 mg/L
TOTAL METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba: 0.20 mg/L Ag Hg CV: 0.0050mg/L

Director, Dr. Blair Leftwich

12-9-98
Date

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

Sent By: TRACE ANALYSIS; 12-11-98 02:19PM APL LEVELLAND TX

December 9, 1998
Receiving Date: 11/25/98
Sample Type: Solids
Project No:
Project Location: Artesia Station

ANALYTICAL RESULTS FOR
AMOCO PIPELINE COMPANY
Attention: Jim Lutter
502 N. West Ave.
Levelland, Tx. 79336

Analysis Date: 11/30/98
Sampling Date: 11/25/98
Sample Condition: I & C
Sample Received by: VW
Project Name: Artesia Tank Seal

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250		<2 >12.5	
T113647	JDL 122598-01	Non-reactive	<10	<2.5	Non	6.0	Non
RPD		0	0	0	0	0	0
% Extraction Accuracy		100	100	100	100	100	100
% Instrument Accuracy		—	—	—	—	—	—

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

12-5-98
DATE

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1790
6725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
AMOCO PIPELINE CO.
Attention: Jim Lutter
502 N. West Avenue
Levelland, TX 79336

December 2, 1998
Receiving Date: 11/25/98
Sample Type: Foam
Project No: NA
Project Location: Artesia Station

Prep Date: 12/01/98
Analysis Date: 12/02/98
Sampling Date: 11/25/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Artesia Tank Seal

TA#	Field Code	TCLP BENZENE (mg/L)
T113647	JDL122598-01	<0.050
QC	Quality Control	0.115
REPORTING LIMIT		0.050
RPD		2
% Extraction Accuracy		122
% Instrument Accuracy		115

METHODS: EPA SW 846-1311, 8021B.
CHEMIST: CS
BENZENE SPIKE AND QC: 0.100 mg/L BENZENE.

BS

Director, Dr. Blair Leftwich

12-2-98

Date

701 Aberdeen Avenue, Ste. 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

TraceAnalysis, Inc.

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1028
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

LAB Order ID #:

Company Name: Hanco Pipeline Company
Phone #: 806-897-7017
Address: (Street, City, Zip) 503 N. West Ave, Levelland Tx 79336
Fax #: 806-897-7045
Contact Person: Tim Luttes
Invoice to: (if different from above)
Project #:
Project Name: Odessa Tank Seal
Project Location: Odessa Station
Sampler Signature: Tim Luttes

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Other	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Other	SAMPLING: DATE	TIME
101122598-01		1	qt								X			12/23/98	6:00

MTBE 8021B/602	BTEX 8021B/602	TPH 418.1/TX1005	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC-MS Vol. 8260B/624	GC/MS Semi. Vol. 8270C/625	PCB's 8082/608	Pesticides 8081A/608	BOD, TSS, pH						Turn Around Time if different from standard	Hold
					X	X			X												

Relinquished by: Tim Luttes Date: 12/23/98 Time: 10:40
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time:
Received at Laboratory by: Date: Time:

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp
Log-In Review

REMARKS: Please fax results

Carrier #

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

CHART COPY

DEC 11 '98 02:20PM AP, LEVELLAND TX

AMOCO PIPELINE COMPANY
502 N. WEST AVENUE
LEVELLAND, TX 79336
FAX (806) 897-7045
PHONE (806) 897-7000

FACSIMILE COVER SHEET

Date 12/11/98

Please Deliver To: Ken Marsh

Name:

Company:

Phone

Fax No.

From:

Name: Jim Luther

Phone (806) 897-7017

Fax No. (806) 897-7045

ADDITIONAL COMMENTS:

☐ URGENT ☐ Reply ASAP ☐ For your review ☐ Please comment

Ken, Here are the analysis we discussed couple weeks ago. Let me know when I can bring. Thanks Jim

Number of pages including cover sheet 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
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

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

RECEIVED
DEC 21 1998
Environmental Bureau
Oil Conservation Division

Form C-1
Originated 8/8

Submit Orig
Plus 1 C
to appropr
District Of

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Yard
2. Management Facility Destination Controlled Recovery, Inc	6. Transporter Unknown
3. Address of Facility Operator P. O. Box 388, Hobbs	8. State NM
7. Location of Material (Street Address or ULSTR) 5801 Lovington Hwy. Hobbs, NM	

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

Oilfield cement hauled to well sites, but not used. I have included waste certificate and MSDS sheets for the product.

12-003

Estimated Volume 200 cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: K Marsh TITLE: Manager DATE: 12-15-98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. 505-393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne O'Kelly TITLE: Environmental Geologist DATE: 12-21-98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Halliburton Energy Services

ADDRESS 5801 Lovington Hwy, Hobbs, NM 88240

GENERATING SITE SAME

COUNTY Lea STATE NM

TYPE OF WASTE Waste Cement

ESTIMATED VOLUME 200 Tons

GENERATING PROCESS Return unused Cement from field (Job Locations)

REMARKS

NMOCD FACILITY Controlled Recovery Inc

TRUCKING COMPANY Halliburton Energy Services / Chemical Express

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT Scott Nelson
SIGNATURE

NAME Scott Nelson
PRINTED

ADDRESS 5801 Lovington Hwy.
Hobbs, N.M. 88240

DATE 12-07-98

MSDS Attached

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: CEMENT - PREMIUM PLUS - BULK PART NUMBER: 516002650
PKG QTY: BULK APPLICATION: CEMENTING
SERVICE USED: CEMENTING

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
PORTLAND CEMENT	› 60 %	10 MG/M3	10 MG/M3
SILICA, CRYSTALLINE--QUARTZ	‹3 %	0.1 MG/M3	0.1 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GRAY SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	3.150
BULK DENSITY	94.00 LB/CU.FT.
PH	12.4
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	.1-1.0
BIODEGRADABILITY	N/A
PERCENT VOLATILES	0
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

++

EXTINGUISHING MEDIA:
NONCOMBUSTIBLE
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NO FIRE HAZARD.
NOT APPLICABLE.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE SEVERE IRRITATION WHICH MAY BE PERSISTENT.
SKIN:
CEMENT DUST CAN BE IRRITATING TO SKIN. WET CEMENT CAN DRY THE SKIN AND CAUSE ALKALI BURNS. SENSITIVE INDIVIDUALS MAY DEVELOP ALLERGIC DERMATITIS.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED. CONTAINS TRACE AMOUNTS OF ARSENIC, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXPOSURE TO ARSENIC SHOULD NOT EXCEED THE FEDERAL OSHA PEL UNLESS USED IN A MANNER THAT PRODUCES EXTREMELY HEAVY AIR-BORNE CONCENTRATIONS OF PRODUCT AT LEVELS WELL ABOVE THE ALLOWABLE LIMITS.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- *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.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
STORE IN A DRY LOCATION.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING CEMENT - PREMIUM PLUS - BULK 516.002650

WARNING!
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE SKIN BURNS IF CEMENT IS WET OR WITH CONFINED INTIMATE CONTACT.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: CEMENT - CLASS H - PREMIUM - BULK PART NUMBER: 516002720
PKG QTY: BULK APPLICATION: CEMENTING
SERVICE USED: CEMENT

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
PORTLAND CEMENT	› 60 %	10 MG/M3	10 MG/M3
SILICA, CRYSTALLINE--QUARTZ	‹3 %	0.1 MG/M3	0.1 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GRAY SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	3.150
BULK DENSITY	94.00 LB/CU.FT.
PH	12.4
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	.1-1.0
BIODEGRADABILITY	N/A
PERCENT VOLATILES	0
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

++

EXTINGUISHING MEDIA:
NONCOMBUSTIBLE
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NO FIRE HAZARD.
NOT APPLICABLE.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE SEVERE IRRITATION WHICH MAY BE PERSISTENT.
SKIN:
CEMENT DUST CAN BE IRRITATING TO SKIN. WET CEMENT CAN DRY THE SKIN AND CAUSE ALKALI BURNS. SENSITIVE INDIVIDUALS MAY DEVELOP ALLERGIC DERMATITIS.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED. CONTAINS TRACE AMOUNTS OF ARSENIC, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXPOSURE TO ARSENIC SHOULD NOT EXCEED THE FEDERAL OSHA PEL UNLESS USED IN A MANNER THAT PRODUCES EXTREMELY HEAVY AIR-BORNE CONCENTRATIONS OF PRODUCT AT LEVELS WELL ABOVE THE ALLOWABLE LIMITS.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
STORE IN A DRY LOCATION.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING CEMENT - CLASS H - PREMIUM - BULK 516.002720

WARNING!
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE SKIN BURNS IF CEMENT IS WET OR WITH CONFINED INTIMATE CONTACT.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES

TSCA YES CERCLA 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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: CEMENT - STANDARD - FINE - BULK PART NUMBER: 516004850
PKG QTY: BULK APPLICATION: CEMENT
SERVICE USED: CEMENTING

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

COMPONENT	PERCENT	TLV	PEL
PORTLAND CEMENT	> 60 %	10 MG/M3	10 MG/M3
SILICA, CRYSTALLINE--QUARTZ	< 3 %	0.1 MG/M3	0.1 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GRAY SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	3.150
BULK DENSITY	94.00 LB/CU.FT.
PH	12.4
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	.1-1.0
BIODEGRADABILITY	N/A
PERCENT VOLATILES	0
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT NONE
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

++

EXTINGUISHING MEDIA:
NONCOMBUSTIBLE
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NO FIRE HAZARD.
NOT APPLICABLE.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3 (T) 5 MG/M3 (R)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE MODERATE TO SEVERE EYE IRRITATION WITH CORNEAL INJURY THAT MAY BE SLOW TO HEAL.
SKIN:
CEMENT DUST CAN BE IRRITATING TO SKIN. WET CEMENT CAN DRY THE SKIN AND CAUSE ALKALI BURNS. SENSITIVE INDIVIDUALS MAY DEVELOP ALLERGIC DERMATITIS.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED. CONTAINS TRACE AMOUNTS OF ARSENIC, A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXPOSURE TO ARSENIC SHOULD NOT EXCEED THE FEDERAL OSHA PEL UNLESS USED IN A MANNER THAT PRODUCES EXTREMELY HEAVY AIR-BORNE CONCENTRATIONS OF PRODUCT AT LEVELS WELL ABOVE THE ALLOWABLE LIMITS.
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. WASH CLOTHING BEFORE REUSE.
IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
STORE IN A DRY LOCATION.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING CEMENT - STANDARD - FINE - BULK 516.004850

WARNING!
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE SKIN BURNS IF CEMENT IS WET OR WITH CONFINED INTIMATE CONTACT.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: POZMIX(R) A - BULK PART NUMBER: 516002860
PKG QTY: BULK APPLICATION: LIGHT WEIGHT CEMENT ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
SILICA, CRYSTALLINE--QUARTZ	31-60 %	0.1 MG/M3	0.1 MG/M3
CALCIUM OXIDE	1-10 %	2 MG/M3	5 MG/M3
IRON OXIDE	1-10 %	5 MG/M3	10 MG/M3
MAGNESIUM OXIDE	1-10 %	10 MG/M3	10 MG/M3
SILICA, CRYSTALLINE-CRISTOBALITE	1-10 %	0.05 MG/M3	0.05 MG/M3
ALUMINUM OXIDE	11-30 %	10 MG/M3	10 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GRAY OR BLACK SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.300
BULK DENSITY	74.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	NEG
BIODEGRADABILITY	N/A
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A FLASH MTHD .
AUTOIGNITION TEMPERATURE
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/A UPPER N/A
++
EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 0.1 MG/M3 (AS CRYSTALLINE SILICA)

---------- EFFECTS OF EXPOSURE ----------
PRIMARY ROUTES OF EXPOSURE:
INHALATION.
EYE:
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
REPEATED OVEREXPOSURE TO CRYSTALLINE SILICA MAY CAUSE ACUTE SILICOSIS, A FIBROTIC LUNG CONDITION THAT REDUCES LUNG FUNCTION AND MAY LEAD TO CARDIOPULMONARY IMPAIRMENT. SILICOSIS IS RAPIDLY PROGRESSIVE AND THE ONSET OF SYMPTOMS MAY BE DELAYED.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
OTHER SYMPTOMS AFFECTED:
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. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING POZMIX(R) A - BULK 516,002860

WARNING!
CONTAINS CRYSTALLINE SILICA WHICH MAY CAUSE A DELAYED, PROGRESSIVE LUNG DISEASE (SILICOSIS). THE IARC AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE MILD EYE AND RESPIRATORY TRACT IRRITATION.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACGIH N/D NPR NE ORSM NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: BENTONITE - HALLIBURTON GEL - BULK PART NUMBER: 516002590
PKG QTY: BULK APPLICATION: VISCOSIFIER, LIGHT WT. ADDITIVE
SERVICE USED: IMCO, CEMENTING

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

COMPONENT	PERCENT	TLV	PEL
BENTONITE	> 60 %	10 MG/M3	15 MG/M3
SILICA, CRYSTALLINE-CRISTOBALITE	UNK %	0.05 MG/M3	0.05 MG/M3
SILICA, CRYSTALLINE-TRIDYMITE	UNK %	0.05 MG/M3	0.05 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	PALE YELLOW SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.650
BULK DENSITY	60.00 LB/CU.FT.
PH	9.9
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	INSOLUBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	INSOLUBLE
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: TOX IVN-RAT LD50: 35 MG/KG
UNITED KINGDOM CHEMICAL NOTIFICATION
SCHEME (CNS) CATEGORY 0

PRODUCT TLV: 10 MG/M3 (N)

---------- EFFECTS OF EXPOSURE ----------
PRIMARY ROUTES OF EXPOSURE:
INHALATION.
EYE:
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEAT OR PROLONG EXPOSURES MAY CAUSE A DELAYED RESPIRATORY SYSTEM ILLNESS, SILICOSIS. SYMPTOMS INCLUDE SHORTNESS OF BREATH, COUGH, FEVER, WEIGHT LOSS, CHEST PAIN, REDUCTION OF LUNG FUNCTION AND HEART IMPAIRMENT. ONSET OF SYMPTOMS MAY BE DELAYED.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
OTHER SYMPTOMS AFFECTED:
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. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:

IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING BENTONITE - HALLIBURTON GEL - BULK 516.002590

WARNING!
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: FLOCELE 3/8" PART NUMBER: 890500710
PKG QTY: 25 LB BAG APPLICATION: LOSS CIRCULATION ADDITIVE
SERVICE USED: CEMENTING

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

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
CELLOPHANE	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	COLORLESS SOLID, FLAKES
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.440
BULK DENSITY	15.00 LB/CU.FT.
PH	5.5
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	INSOLUBLE
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
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:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
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 AND CARBON MONOXIDE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3 (T); 5 MG/M3 (R)

---------- EFFECTS OF EXPOSURE ----------
PRIMARY ROUTES OF EXPOSURE:
INHALATION.
EYE:
ESSENTIALLY NON-IRRITATING.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
TREAT AS NUISANCE DUST.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.
---------- EMERGENCY AND FIRST AID PROCEDURES ----------
UNDER NORMAL CIRCUMSTANCES, NO FIRST AID PROCEDURES WOULD BE REQUIRED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE AND/OR CARBON DIOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION IS NOT NORMALLY NEEDED.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.

EYE PROTECTION:
GOGGLES AND/OR FACE SHIELD.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING FLOCELE 3/8" 890.500710

CAUTION!
TREAT AS NUISANCE DUST.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: CALCIUM CHLORIDE - HI-TEST PELLETS PART NUMBER: 890508120
PKG QTY: 80 LB BAG APPLICATION: ACCELERATOR
SERVICE USED: CEMENTING

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

COMPONENT* * * * * * * * * *	PERCENT	TLV	PEL
CALCIUM CHLORIDE	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE SOLID,PELLETS
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.200
BULK DENSITY	64.00 LB/CU.FT.
PH	10
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	60
BIODEGRADABILITY	N/A
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	/1500 F / 815 C
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	0.711 KG/M3
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE

FLASH POINT		N/A			
AUTOIGNITION TEMPERATURE		ND		ND	
FLAMMABLE LIMITS (OZ. PER CU. FT.)	LOWER	N/D		UPPER	N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: TOX ORL-RAT LD50: 1000 MG/KG
TOX ORL-RBT LDLO: 1384 MG/KG
TOX SKN-RBT LD50: >5000 MG/KG
AQU TLM 96: >1000 PPM

PRODUCT TLV: NUISANCE: 10 MG/M3(T)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE MODERATE TO SEVERE EYE IRRITATION WITH CORNEAL INJURY THAT MAY BE SLOW TO HEAL.
SKIN:
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE SEVERE IRRITATION OR BURNS ESPECIALLY IF SKIN IS MOIST OR IF MATERIAL IS CONFINED.
INHALATION:
MAY BE IRRITATING.
INGESTION:
CORROSIVE TO MOUTH, ESOPHAGUS, AND STOMACH UPON INGESTION.
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
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.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES AND/OR FACE SHIELD.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING CALCIUM CHLORIDE - HI-TEST PELLETS 890.508120

WARNING!
IRRITATING TO THE EYES, SKIN AND RESPIRATORY SYSTEM.
MAY CAUSE SKIN BURNS IF CEMENT IS WET OR WITH CONFINED INTIMATE CONTACT.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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 UFON. 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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: GILSONITE(R) RESIN - BULK PART NUMBER: 516003370
PKG QTY: BULK APPLICATION: LOST CIRC & LT WT ADDITIVE
SERVICE USED: CEMENTING

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

COMPONENT	PERCENT	TLV	PEL
NATURAL ASPHALT	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	DARK-BROWN SOLID
ODOR	ASPHALTIC
SPECIFIC GRAVITY (H2O=1)	1.050
BULK DENSITY	65.55 LB/CU.FT.
PH	5.8
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	NIL
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	2
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 1 REACTIVITY 1 SPECIAL NONE

FLASH POINT	599 F /	315 C	FLASH MTHD COC
AUTOIGNITION TEMPERATURE	ND	ND	
FLAMMABLE LIMITS (OZ. PER CU. FT.)	LOWER 0.020	UPPER N/D	

++
EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE TOXIC GASES.
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: TOX DETAILED STUDIES AVAILABLE UPON REQUEST

PRODUCT TLV: 10 MG/M3 (N)

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
SKIN:
MAY CAUSE MILD IRRITATION.
INHALATION:
MAY BE IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO SPECIFIC INFORMATION IS AVAILABLE ON THE CHRONIC EFFECTS OF EXPOSURE.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. *NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL* ATTENTION.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON DIOXIDE AND/OR CARBON MONOXIDE AND UNIDENTIFIED HYDROCARBON VAPORS.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.

GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT ABSORBED MATERIAL TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING GILSONITE(R) RESIN - BULK 516.003370

CAUTION!
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: CFR-3 CEMENT FRICTION REDUCER DEFOAM PART NUMBER: 516002950
PKG QTY: 50 LB BAG APPLICATION: DISPERSANT FOR SALT CEMENT
SERVICE USED: CEMENT

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

COMPONENT+ * * * * * * * * *	PERCENT	TLV	PEL
SULFONIC ACID SALT	› 60 %	NOT EST	NOT EST
SILICA, AMORPHOUS-DIATOMACEOUS EARTH	1-10 %	10 MG/M3	6 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	DARK RED SOLID, POWDER
ODOR	MUSTY
SPECIFIC GRAVITY (H2O=1)	1.290
BULK DENSITY	38.00 LB/CU.FT.
PH	7
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	SOLUBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	0
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	› 600,000
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
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:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND SULFUR OXIDES.
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE 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: AQU TLM96: >3300 PPM (BROWN SHRIMP)

PRODUCT TLV: 10 MG/M3 (T); 5 MG/M3 (R)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE MILD EYE IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INOUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, CARBON DIOXIDE AND/OR CAREON 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.

WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING CFR-3 CEMENT FRICTION REDUCER DEFOAM 516.002950

WARNING!
CAUTION!
IRRITATING TO THE EYES, SKIN AND RESPIRATORY SYSTEM.
TREAT AS NUISANCE DUST.
AIRBORNE DUST MAY BE EXPLOSIVE!
PRODUCT IS VERY SLIPPERY WHEN WET! DO NOT SPREAD WITH WATER.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 08-20-97
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HALAD(R) 9 CEMENT ADDITIVE PART NUMBER: 070155560
PKG QTY: 50 LB BAG APPLICATION: LOW FLUID LOSS ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT* * * * * * * * * *	PERCENT	TLV	PEL
CONDENSATE OF SULFONATED ORGANIC SALT	31-60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	TAN SOLID POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.220
BULK DENSITY	37.20 LB/CU.FT.
PH	5.5
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	10
BIODEGRADABILITY	READILY
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	FORMS GEL
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE

FLASH POINT	N/A			
AUTOIGNITION TEMPERATURE	ND	ND		
FLAMMABLE LIMITS (% BY VOLUME)	LOWER	N/D	UPPER	N/D

++

EXTINGUISHING MEDIA:
USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
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.
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD

HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: >3300 PPM(BROWN SHRIMP)

PRODUCT TLV: NUISANCE: 10 MG/M3(T)

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE SEVERE EYE IRRITATION.
SKIN:
DUST MAY CAUSE MILD SKIN IRRITATION.
INHALATION:
MAY BE IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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:
IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.

WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HALAD(R) 9 CEMENT ADDITIVE 070.155560

WARNING!
MAY CAUSE ALLERGIC RESPIRATORY REACTION IN SUSCEPTIBLE INDIVIDUALS.
MAY CAUSE SKIN AND RESPIRATORY IRRITATION.
MAY CAUSE SEVERE EYE IRRITATION.
AIRBORNE DUST MAY BE EXPLOSIVE!
PRODUCT IS VERY SLIPPERY WHEN WET! DO NOT SPREAD WITH WATER.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA YES EEC NO ACOIN N/D NPR NE ORSM NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A

HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-14-96
DUNCAN, OKLAHOMA 73536

ENERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HALAD(R) 322 CEMENT ADDITIVE PART NUMBER: 516001440
PKG QTY: 50 LB BAG APPLICATION: LOW TEMP. FLUID LOSS ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT	PERCENT	TLV	PEL
CELLULOSE DERIVATIVE	11-30 %	10 MG/M3	15 MG/M3
SILICA, AMORPHOUS-DIATOMACEOUS EARTH	1-10 %	10 MG/M3	6 MG/M3
CONDENSTATE OF SULFONATED ORGANIC SALT	› 60 %	NOT DETERMINOT DETERMINED	

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

PROPERTY	MEASUREMENT
APPEARANCE	REDDISH SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.280
BULK DENSITY	35.20 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	FORMS SOL
BIODEGRADABILITY	READILY
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	› 250,000
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
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:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD

HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: >3300 PPM(BROWN SHRIMP)

PRODUCT TLV: 10 MG/M3 (N)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE EYE IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
EXPOSURE TO THIS PRODUCT.
---------- 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. WASH CLOTHING BEFORE REUSE.
IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE
QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING
DUST.

WASTE DISPOSAL METHOD:
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HALAD(R) 322 CEMENT ADDITIVE 516.001440

CAUTION!
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.
AIRBORNE DUST MAY BE EXPLOSIVE!
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 08-19-97
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HALAD(R) 344 CEMENT ADDITIVE PART NUMBER: 516002270
PKG QTY: 50 LB BAG APPLICATION: FLUID LOSS ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT	PERCENT	TLV	PEL
MODIFIED ACRYLAMIDE COPOLYMER	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE TO OFF-WHITE SOLID POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.220
BULK DENSITY	26.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	SOLUBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	<5
EVAPORATION RATE(BUTYL ACETATE=1)	N/D
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/D
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	SOLUBLE
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.

SPECIAL FIRE FIGHTING PROCEDURES:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND NITROGEN OXIDES.
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: >3300 PPM(BROWN SHRIMP)

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MILD IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTONS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.

GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HALAD(R) 344 CEMENT ADDITIVE 516.002270

CAUTION!
MAY CAUSE MILD IRRITATION TO EYES, SKIN AND THE RESPIRATORY SYSTEM.
TREAT AS NUISANCE DUST.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 NE EEC NO ACOIN NO NPR NE DRSH NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HALAD(R) 413 CEMENT ADDITIVE PART NUMBER: 516005120
PKG QTY: 50 LB BAG APPLICATION: HIGH TEMP FLUID LOSS ADDITIVE
SERVICE USED: CEMENTING

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

COMPONENT * * * * * * * * *	PERCENT	TLV	PEL
ACRYLIC POLYMER	> 60 %	NOT EST	NOT EST

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

PROPERTY	MEASUREMENT
APPEARANCE	BROWN/BLACK SOLID, POWDER
ODOR	SWEET
SPECIFIC GRAVITY (H2O=1)	1.480
BULK DENSITY	42.00 LB/CU.FT.
PH	7.5
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	MISCIBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	280,000
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 1 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (% BY VOLUME) LOWER N/A UPPER N/A

++

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND OXIDES OF NITROGEN AND SULFUR.

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

CALIFORNIA PROPOSITION 65:

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: >3300 PPM (BROWN SHRIMP)

PRODUCT TLV: NOT ESTABLISHED

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE EYE IRRITATION.
SKIN:
PROLONGED CONTACT MAY CAUSE IRRITATION.
INHALATION:
ESSENTIALLY NON-IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
CONTACT WITH WATER MAY CAUSE GELLING.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF NITROGEN AND SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HALAD(R) 413 CEMENT ADDITIVE 516.005120

CAUTION!
MAY CAUSE EYE AND SKIN IRRITATION.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 05-22-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HALAD 447 PART NUMBER: 516007670
PKG QTY: 55 LB BAG APPLICATION: FLUID LOSS ADDITIVE
SERVICE USED: CEMENTING

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
CALCIUM SULFATE	31-60 %	10 MG/M3 (N15 MG/M3	
BORIC ACID	1-10 %	NOT EST.	NOT EST
POLYPROPYLENE GLYCOL	1-10 %	NOT EST	NOT EST
POLYVINYL ALCOHOL	31-60 %	NOT EST	NOT EST

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.640
BULK DENSITY	55.80 LB/CU.FT.
PH	7.5 FOR 4% SOL.
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	SOLUBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT › 212 F / › 100 C FLASH MTHD SETA
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/A UPPER N/A

EXTINGUISHING MEDIA:
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:
THERMAL DECOMPOSITION MAY PRODUCE ACETALDEHYDE, CROTONALDEHYDE, ACETONE AND OXIDES OF SULFUR.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQUATIC TOXICITY:
CASO4 1/2 H2O HAS LOW TOXICITY (96 HR
LD50 500-5000 MG/L). 120 HR,
NITZCHIA LINEARIS: 3200 MG/L.
BORIC ACID HAS VERY LOW TOXICITY. THE
96 HR TLM IN MOSQUITO FISH IS
5,600 MG/L.
POLYPROPYLENE GLYCOL HAS LOW TOXICITY.
THE 96 HR LC50 IN BLUEGILL SUNFISH
IS 1700 PPM.

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST IS MILDLY IRRITATING.
SKIN:
DUST IS MILDLY IRRITATING.
INHALATION:
MIST MAY CAUSE IRRITATION OF UPPER RESPIPATORY SYSTEM.
INGESTION:
GASTROINTESTINAL DISTURBANCES AND WITH LARGE INGESTED DOSES ANEMIA, KIDNEY AND LIVER DAMAGE, CYANOSIS, FEVER, CENTRAL NERVOUS SYTEM STIMULATION, CARDIAL ARRHYTHMIAS, COLLAPSE AND WITH GROSS DOSES POSSIBLY DEATH.
CHRONIC EFFECTS:
NO SPECIFIC INFORMATION IS AVAILABLE ON THE CHRONIC EFFECTS OF EXPOSURE.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.
---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT 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:
GIVE UP TO TWO (2) QUARTS OF WATER AND INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.
NOTE TO PHYSICIANS: ACTIVATED CHARCOAL OR GASTRIC LAVAGE MAY BE ADVISABLE FOR SIGNIFICANT INGESTIONS.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.

INCOMPATIBILITY (MATERIALS TO AVOID):
ALUMINUM AND STRONG ACIDS.
HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE ACETALDEHYDE, CROTONALDEHYDE, ACETONE AND OXIDES OF SULFUR.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
PREVENT RUNOFF FROM ENTERING SEWERS, LAKES, RIVERS, STREAMS OR PUBLIC WATER SUPPLIES.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN DUSTY ENVIRONMENTS.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HALAD 447 516.007670

CAUTION!
HARMFUL AND POSSIBLY FATAL IF SWALLOWED.
MAY CAUSE MILD IRRITATION TO EYES, SKIN AND UPPER RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
STORE IN A COOL WELL VENTILATED LOCATION.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
WASH HANDS AFTER USE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
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.
SPECIAL PRECAUTIONS:
PRODUCT HAS A SHELF LIFE OF 24 MONTHS.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA YES 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 NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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 INDEFENDENT 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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HR-5 ADDITIVE PART NUMBER: 890500770
PKG QTY: 50 LB BAG APPLICATION: RETARDER
SERVICE USED: CEMENTING

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

COMPONENT* * * * * * * * * *	PERCENT	TLV	PEL
MODIFIED LIGNOSULFONATE	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	BLACK SOLID,POWDER
ODOR	MOLASSES-LIKE
SPECIFIC GRAVITY (H2O=1)	1.410
BULK DENSITY	38.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	FREELY
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
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:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
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.
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD

HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: >1000 PPM(BROWN SHRIMP)

PRODUCT TLV: 10 MG/KG(N)

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MILD IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
TREAT AS NUISANCE DUST.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:

IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HR-5 ADDITIVE 890.500770

CAUTION!
MAY CAUSE MILD IRRITATION TO EYES, SKIN AND UPPER RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: HR-7 ADDITIVE PART NUMBER: 890509030
PKG QTY: 50 LB BAG APPLICATION: RETARDER & DISPERSANT
SERVICE USED: CEMENTING

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

COMPONENT	PERCENT	TLV	PEL
MODIFIED LIGNOSULFONATE	UNK %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	BLACK SOLID,POWDER
ODOR	MOLASSES-LIKE
SPECIFIC GRAVITY (H2O=1)	1.410
BULK DENSITY	38.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	FREELY
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 1 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
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:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
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.
ORGANIC DUST IN THE PRESENCE OF A SOURCE OF IGNITION CARRIES A POTENTIAL EXPLOSION HAZARD IF THE CONCENTRATION IN THE AIR IS TOO HIGH. GOOD

HOUSEKEEPING PROCEDURES ARE REQUIRED TO MINIMIZE THIS POTENTIAL HAZARD.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: >1000 PPM(BROWN SHRIMP)

PRODUCT TLV: NUISANCE: 10MG/M3(T)

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MILD IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.

---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING HR-7 ADDITIVE 890.509030

CAUTION!
MAY CAUSE MILD IRRITATION TO EYES, SKIN AND UPPER RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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
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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-14-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: DIACEL D PART NUMBER: 070155240
PKG QTY: 50 LB BAG APPLICATION: LIGHT WEIGHT CEMENT
SERVICE USED: CEMENTING

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
SILICA, CRYSTALLINE--QUARTZ	< 1 %	0.1 MG/M3	0.1 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GREY - OFF-WHITE SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.000
BULK DENSITY	16.70 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	SLIGHT
BIODEGRADABILITY	N/D
PERCENT VOLATILES	NONE
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

++

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: TOX ORL-RAT LD50: 3160 MG/KG

PRODUCT TLV: 10 MG/M3 (T); 5 MG/M3 (R)

---------- EFFECTS OF EXPOSURE ----------
PRIMARY ROUTES OF EXPOSURE:
INHALATION.
EYE:
DUST MAY CAUSE MILD EYE IRRITATION.
INHALATION:
EXCESSIVE EXPOSURE MAY IMPEDE RESPIRATION DUE TO HYGROSCOPIC PROPERTIES.
INHALATION OF DUST OVER EXTENDED PERIODS MAY LEAD TO PNEUMOCONIOSIS, A
CHRONIC LUNG DISEASE.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF
ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
CONTAINS A SMALL AMOUNT (< 1%) OF CRYSTALLINE SILICA. NTP AND IARC HAVE
DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE
SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED
EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
OTHER SYMPTOMS AFFECTED:
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. IF
IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE
QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
HYDROGEN FLUORIDE OR HYDROFLUORIC ACID.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING
DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING DIACEL D 070.155240

CAUTION!
MAY CAUSE MILD EYE AND RESPIRATORY TRACT IRRITATION.
INHALATION OF DUST OVER EXTENDED PERIODS MAY LEAD TO LUNG DISORDER.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 08-16-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4699 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: ECONOLITE ADDITIVE PART NUMBER: 070152500
PKG QTY: 100 LB BAG APPLICATION: DETERGENT;LIGHT WEIGHT ADDITIVE
SERVICE USED: I.C. CHEMICAL SERVS.

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
SODIUM METASILICATE, ANHYDROUS	> 60 %	NOT EST	NOT EST

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE SOLID, CRYSTALLINE
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.750
BULK DENSITY	75.00 LB/CU.FT.
PH	12.7 FOR 1% SOL
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	18
BIODEGRADABILITY	N/D
PERCENT VOLATILES	NONE
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 3 FLAMMABILITY 0 REACTIVITY 1 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:
NOT APPLICABLE
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: IRR SKN-HMN 250 MG/24H SEV
IRR SKN-RBT 250 MG/24H SEV
TOX ORL-RAT LD50:1280 MG/KG
TOX ORL-MUS LD50: 2400 MG/KG

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE SEVERE BURNS WITH POSSIBLE PERMANENT TISSUE DAMAGE DEPENDING ON THE LENGTH OF EXPOSURE AND THE FIRST AID ACTION GIVEN.
SKIN:
MAY CAUSE SEVERE IRRITATION WHICH MAY BE PERSISTENT.
INHALATION:
DUST MAY CAUSE SEVERE IRRITATION WHICH MAY LEAD TO CHEMICAL PNEUMONIA DEPENDING UPON THE DURATION AND SEVERITY OF EXPOSURE.
INGESTION:
CORROSIVE TO MOUTH, ESOPHAGUS, AND STOMACH UPON INGESTION.
CHRONIC EFFECTS:
NO SPECIFIC INFORMATION IS AVAILABLE ON THE CHRONIC EFFECTS OF EXPOSURE.
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. SEEK PROMPT MEDICAL ATTENTION.
SKIN:
IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. SEEK MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.
INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN. SEEK PROMPT MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG ACIDS (EG. SULFURIC, PHOSPHORIC, NITRIC, HYDROCHLORIC, CHROMIC, SULFONIC) WHICH CAN GENERATE HEAT, SPLATTERING OR BOILING AND THE RELEASE OF TOXIC FUMES.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
IMPERVIOUS RUBBER GLOVES.
EYE PROTECTION:
WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

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

PRECAUTIONARY LABELING ECONOLITE ADDITIVE 070.152500

WARNING!
MAY CAUSE SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. - 8 - UN3262 - II
(SODIUM METASILICATE, ANHYDROUS)

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 NE EEC N/D ACOIN N/D NPR NE ORSM NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: BARITE - BULK PART NUMBER: 516002580
PKG QTY: BULK APPLICATION: WEIGHTING AGENT
SERVICE USED: CEMENTING

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

COMPONENT	PERCENT	TLV	PEL
BARIUM SULFATE	> 60 %	10 MG/M3	10 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	PINK TO TAN TO GRAY SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	4.230
BULK DENSITY	135.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	INSOLUBLE
BIODEGRADABILITY	N/A
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/D
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MILD IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
INGESTION:
LARGE INJECTED DOSES OF BARIUM CAUSE A STRONG, PROLONGED STIMULATION OF ALL FORMS OF MUSCLE, RESULTING IN BLADDER CONTRACTION, CONSTRICTION OF BLOOD VESSELS AND IRREGULAR HEART CONTRACTIONS.
CHRONIC EFFECTS:
REPEATED OR PROLONGED INHALATION OF BARIUM SULFATE DUST MAY LEAD TO A BENIGN PNEUMOCONIOSIS (BARITOSIS), A NODULAR LUNG DISEASE.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.
---------- 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. WASH CLOTHING BEFORE REUSE.
IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE.
NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING BARITE - BULK 516.002580

CAUTION!
IRRITATING TO THE EYES, SKIN AND RESPIRATORY SYSTEM.
INHALATION OF BARIUM MAY LEAD TO BARITOSIS, A NODULAR LUNG DISORDER.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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 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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: CAL-SEAL 60 - 100 LBS PART NUMBER: 890501310
PKG QTY: 100 LB BAG APPLICATION: ACCELERATOR, TEMPORARY PLUGS
SERVICE USED: CEMENTING

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
CALCIUM SULFATE HEMIHYDRATE	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.700
BULK DENSITY	75.00 LB/CU.FT.
PH	10.4
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	0.2%
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	2,000-8,000
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: TOX IHL-HMN TCLO: 194000 MG/M3/10Y-I
AQU TLM96:OVER 1000 PPM

PRODUCT TLV: NUISANCE: 10 MG/M3(T)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY BE IRRITATING.
SKIN:
MAY CAUSE MILD ALLERGIC SKIN REACTION IN SUSCEPTIBLE INDIVIDUALS.
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE SEVERE IRRITATION OR BURNS
ESPECIALLY IF SKIN IS MOIST OR IF MATERIAL IS CONFINED.
INHALATION:
MAY BE IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
EXPOSURE TO THIS PRODUCT.
---------- 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. WASH CLOTHING BEFORE REUSE.
IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE
QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING
DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES AND/OR FACE SHIELD.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING CAL-SEAL 60 - 100 LBS 890.501310

CAUTION!
IRRITATING TO THE EYES, SKIN AND RESPIRATORY SYSTEM.
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE SEVERE IRRITATION OR BURNS
ESPECIALLY IF SKIN IS MOIST OR IF MATERIAL IS CONFINED.
MAY CAUSE ALLERGIC SKIN REACTION IN SUSCEPTIBLE INDIVIDUALS.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
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.
SPECIAL PRECAUTIONS:
PRODUCT HAS A SHELF LIFE OF 24 MONTHS.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE FEC N/D ACGIH N/D NPR NE ORSM NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-13-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: LAP-1 PART NUMBER: 070153770
PKG QTY: 50 LB BAG APPLICATION: LATEX CEMENT ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
POLYVINYL ALCOHOL	> 60 %	NOT EST	NOT EST

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE TO OFF-WHITE SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.329
BULK DENSITY	50.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT	
20 DEG C. GMS/100ML H2O	INSOLUBLE
BIODEGRADABILITY	RESISTANT
PERCENT VOLATILES	5.
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 2 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
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:
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 AND CARBON MONOXIDE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE 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 BE IRRITATING.
SKIN:
ESSENTIALLY NON-IRRITATING.
MAY CAUSE SKIN SENSITIZATION, AN ALLERGIC REACTION WHICH BECOMES EVIDENT ON REPEATED EXPOSURES TO THIS PRODUCT.
INHALATION:
MAY BE IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
CONTAINS POLYVINYL ALCOHOL (PVA), WHICH HAS PRODUCED LOCAL SARCOMAS IN EXPERIMENTAL ANIMALS WHEN PVA SPONGES WERE DERMALLY IMPLANTED. DERMALLY IMPLANTED POWDER, HOWEVER, DID NOT PRODUCE ANY LOCAL SARCOMAS. THIS PRODUCT CONTAINS PVA POWDER.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.
---------- 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.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE AND/OR CARBON DIOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:

IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES AND/OR FACE SHIELD.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING LAP-1 070.153770

CAUTION!
IRRITATING TO THE EYES, SKIN AND RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE AWAY FROM OXIDIZERS.
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACGIH N/D NPR NE DRSN NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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 UFON. 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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-12-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: MICROBOND EXPANDING ADDITIVE PART NUMBER: 516002260
PKG QTY: 50 LB BAG APPLICATION: CEMENT EXPANSION ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT* * * * * * * * *	PERCENT	TLV	PEL
CALCIUM HYDROXIDE	1-10 %	5 MG/M3	5 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	LIGHT PINK SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	3.200
BULK DENSITY	59.40 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	NEGLIGIBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/D
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	INSOLUBLE
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

****

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: NOT DETERMINED
ECOTOXICITY:
THIS PRODUCT WAS EVALUATED FOR VARIOUS
PCB'S AND FOUND TO HAVE A CONTENT
OF LESS THAN 100 PPB.
THIS PRODUCT WAS EVALUATED FOR VARIOUS
CHLOROPHENOLS AND FOUND TO HAVE A
CONTENT OF LESS THAN 100 PPB.
PRODUCT EVALUATION OF: CYANIDE < 10 PPM
AND ORGANO-PHOSPHOROUS < 0.1 PPM.

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MILD IRRITATION.
SKIN:
PROLONGED OR REPEATED CONTACT MAY CAUSE DERMATITIS.
INHALATION:
MAY CAUSE MILD ALLERGIC REACTION IN SUSCEPTIBLE INDIVIDUALS.
MAY BE IRRITATING.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO SPECIFIC INFORMATION IS AVAILABLE ON THE CHRONIC EFFECTS OF EXPOSURE.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY
EXPOSURE TO THIS PRODUCT.
---------- 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.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE
QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.

WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES AND/OR FACE SHIELD.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING MICROBOND EXPANDING ADDITIVE 516.002260

CAUTION!
MAY CAUSE MILD IRRITATION TO EYES, SKIN AND THE RESPIRATORY SYSTEM.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACDIN N/D NPR NE DRSH NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-13-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: D-AIR 1 PART NUMBER: 070157640
PKG QTY: 50 LB CAN APPLICATION: ANTI-FOAM AGENT
SERVICE USED: CEMENTING

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

COMPONENT+	PERCENT	TLV	PEL
SILICA, AMORPHOUS-DIATOMACEOUS EARTH	> 60 %	10 MG/M3	6 MG/M3
SILICA, CRYSTALLINE--QUARTZ	< 1 %	0.1 MG/M3	0.1 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	TAN SOLID, POWDER
ODOR	BLAND
SPECIFIC GRAVITY (H2O=1)	1.350
BULK DENSITY	25.20 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	INSOLUBLE
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 1 REACTIVITY 0 SPECIAL NONE
FLASH POINT > 300 F / > 148 C FLASH MTHD PMCC
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/A UPPER N/A

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
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 TOXIC GASES.

* * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NUISANCE: 10 MG/M3(T)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
INHALATION OF DUST OVER EXTENDED PERIODS MAY LEAD TO PNEUMOCONIOSIS, A CHRONIC LUNG DISEASE.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.
---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITATON DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE AND/OR CARBON DIOXIDE.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING

DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
NOT NORMALLY NECESSARY.
HIGH EFFICIENCY PARTICULATE RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN DUSTY ENVIRONMENTS.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
GOGGLES OR SAFETY GLASSES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING D-AIR 1 070.157640

CAUTION!
REPEATED OR PROLONGED INHALATION OF RESPIRABLE DUST IN EXCESS OF TLV OVER AN EXTENDED PERIOD OF TIME MAY RESULT IN PNEUMOCONIOSIS (A LUNG DISEASE).
MAY CAUSE RESPIRATORY IRRITATION.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES
TSCA YES CEPA NE EEC N/D ACDIN N/D NPR NE ORSH NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: MICRO FLY ASH - 50 LBS PART NUMBER: 516008600
PKG QTY: 50 LB BAG APPLICATION: CEMENT ADDITIVE
SERVICE USED: CEMENTING

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
SILICA, CRYSTALLINE--QUARTZ	31-60 %	0.1 MG/M3	0.1 MG/M3
SILICA, CRYSTALLINE-CRISTOBALITE	1-10 %	0.05 MG/M3	0.05 MG/M3
CALCIUM OXIDE	1-10 %	2 MG/M3	5 MG/M3
IRON OXIDE	< 8 %	5 MG/M3	10 MG/M3
MAGNESIUM OXIDE	1-10 %	10 MG/M3	10 MG/M3
ALUMINUM OXIDE	11-30 %	10 MG/M3	10 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GRAY OR BLACK SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.540
BULK DENSITY	50.00 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	NEG
BIODEGRADABILITY	N/A
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A FLASH MTHD .
AUTOIGNITION TEMPERATURE
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/A UPPER N/A

++

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: *NOT DETERMINED*

PRODUCT TLV: 0.1 MG/M3 (AS CRYSTALLINE SILICA)

---------- EFFECTS OF EXPOSURE ----------
PRIMARY ROUTES OF EXPOSURE:
INHALATION.
EYE:
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
REPEATED OVEREXPOSURE TO CRYSTALLINE SILICA MAY CAUSE ACUTE SILICOSIS, A FIBROTIC LUNG CONDITION THAT REDUCES LUNG FUNCTION AND MAY LEAD TO CARDIOPULMONARY IMPAIRMENT. SILICOSIS IS RAPIDLY PROGRESSIVE AND THE ONSET OF SYMPTOMS MAY BE DELAYED.
INGESTION:
THIS MATERIAL IS OF VERY LOW ACUTE TOXICITY. THERE IS NO EVIDENCE OF ADVERSE EFFECTS FROM AVAILABLE INFORMATION.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
OTHER SYMPTOMS AFFECTED:
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. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING MICRO FLY ASH - 50 LBS 516.008600

WARNING!
CONTAINS CRYSTALLINE SILICA WHICH MAY CAUSE A DELAYED, PROGRESSIVE LUNG DISEASE (SILICOSIS). THE IARC AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE MILD EYE AND RESPIRATORY TRACT IRRITATION.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
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.
SPECIAL PRECAUTIONS:
PRODUCT HAS A SHELF LIFE OF 24 MONTHS.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

E. COMPONENTS LISTED ON FOLLOWING CHEMICAL INVENTORIES

TSCA YES x CEPA NE EEC N/D ACOIN N/D NPR NE ORSM NE

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

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MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-12-96
DUNCAN, OKLAHOMA 73536

ENERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: MICRO MATRIX CEMENT - 50 LBS PART NUMBER: 516006110
PKG QTY: 50 LB BAG APPLICATION: CEMENT
SERVICE USED: CEMENT

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

COMPONENT+ + + + + + + + + +	PERCENT	TLV	PEL
SILICA, CRYSTALLINE--QUARTZ	< 1 %	0.1 MG/M3	0.1 MG/M3
PORTLAND CEMENT	> 60 %	10 MG/M3	10 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	GRAY SOLID POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	3.150
BULK DENSITY	50.00 LB/CU.FT.
PH	12.4
SOLUBILITY IN WATER AT	
20 DEG C. GMS/100ML H2O	SLIGHTLY
BIODEGRADABILITY	N/A
PERCENT VOLATILES	0
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	NONE
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	N/A
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/A UPPER N/A

EXTINGUISHING MEDIA:
NONCOMBUSTIBLE
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NO FIRE HAZARD.

* * * * * * * * * * * * 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 : IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: 10 MG/M3(T), 5 MM/M3(R)

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE MODERATE TO SEVERE EYE IRRITATION WITH CORNEAL INJURY THAT MAY BE SLOW TO HEAL.
SKIN:
CEMENT DUST CAN BE IRRITATING TO SKIN. WET CEMENT CAN DRY THE SKIN AND CAUSE ALKALI BURNS. SENSITIVE INDIVIDUALS MAY DEVELOP ALLERGIC DERMATITIS.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED. CONTAINS TRACE AMOUNTS OF ARSENIC, CADMIUM, CHROMIUM AND LEAD, CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. EXPOSURES TO THESE TRACE METALS SHOULD NOT EXCEED THE OSHA PELS UNLESS USED IN A MANNER THAT PRODUCES HEAVY AIRBORNE CONCENTRATIONS WELL ABOVE THE PRODUCT'S ALLOWABLE LIMITS.
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. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
STORE IN A DRY LOCATION.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

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

PRECAUTIONARY LABELING MICRO MATRIX CEMENT - 50 LBS 516.006110

WARNING!
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE EYE AND SKIN IRRITATION.
MAY CAUSE SKIN BURNS IF CEMENT IS WET OR WITH CONFINED INTIMATE CONTACT.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: SILICALITE ADDITIVE - REGULAR - 50 LBS PART NUMBER: 516004450
PKG QTY: 50 LB BAG APPLICATION: LIGHTWEIGHT CEMENT ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT	PERCENT	TLV	PEL
SILICA, AMORPHOUS-FUMED	> 60 %	10 MG/M3	6 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	BLACK SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.300
BULK DENSITY	13.00 LB/CU.FT.
PH	6-8 FOR SAT SOL
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H20	INSOLUBLE
BIODEGRADABILITY	N/A
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	N/A
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	30 PPM
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE

FLASH POINT	N/A		
AUTOIGNITION TEMPERATURE	ND	ND	
FLAMMABLE LIMITS (OZ. PER CU. FT.)	LOWER N/D	UPPER	N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: TOX ORL-RAT LD50: 3160 MG/KG
TOX IPR-RAT LDLO: 50 MG/KG

PRODUCT TLV: 10 MG/M3

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEAT OR PROLONG EXPOSURES MAY CAUSE A DELAYED RESPIRATORY SYSTEM ILLNESS, SILICOSIS. SYMPTOMS INCLUDE SHORTNESS OF BREATH, COUGH, FEVER, WEIGHT LOSS, CHEST PAIN, REDUCTION OF LUNG FUNCTION AND HEART IMPAIRMENT. ONSET OF SYMPTOMS MAY BE DELAYED.
CHRONIC EFFECTS:
CRYSTALLINE SILICA IS NOT ON THE OSHA CARCINOGEN LIST. NTP AND IARC HAVE DETERMINED THERE IS SUFFICIENT EVIDENCE FOR CARCINOGENICITY OF CRYSTALLINE SILICA TO EXPERIMENTAL ANIMALS AND LIMITED EVIDENCE TO HUMANS. "LIMITED EVIDENCE" MEANS POSSIBLE RELATIONSHIP, BUT OTHER FACTORS CANNOT BE EXCLUDED.
OTHER SYMPTOMS AFFECTED:
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. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER. WASH CLOTHING BEFORE REUSE. IF IRRITAION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
HYDROGEN FLUORIDE OR HYDROFLUORIC ACID.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.

SEE APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN DUSTY ENVIRONMENTS.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING SILICALITE ADDITIVE - REGULAR - 50 LBS 516.004450

WARNING!
CONTAINS A SMALL AMOUNT OF CRYSTALLINE SILICA, REPEATED OR PROLONGED INHALATION OF DUST MAY CAUSE A DELAYED RESPIRATORY ILLNESS (SILICOSIS). THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) AND NTP HAVE DETERMINED THERE IS LIMITED EVIDENCE OF THE CARCINOGENICITY OF CRYSTALLINE SILICA.
MAY CAUSE RESPIRATORY IRRITATION.
DUST MAY CAUSE A MECHANICAL IRRITATION TO THE EYES.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
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.
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N 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)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 06-12-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: GASSTOP ADDITIVE PART NUMBER: 516003440
PKG QTY: 25 LB BAG APPLICATION: ANTIGAS MIGRATION CEMENT ADDIT.
SERVICE USED: CEMENT

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
MODIFIED ACRYLAMIDE COPOLYMER	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE TO OFF-WHITE SOLID POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.220
BULK DENSITY	26.00 LB/CU.FT.
PH	8.8 FOR 1% SOL
SOLUBILITY IN WATER AT	
20 DEG C. GMS/100ML H2O	N/D
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	<5
EVAPORATION RATE(BUTYL ACETATE=1)	N/D
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT(760 MMHG)	N/D
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	INSOLUBLE
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 1 REACTIVITY 1 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
AVOID CREATING DUST CLOUDS WITH EXTINGUISHERS.
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 OXIDES OF NITROGEN AND SULFUR.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
MAY CAUSE MILD IRRITATION.
SKIN:
ESSENTIALLY NON-IRRITATING.
INHALATION:
MAY BE IRRITATING.
TREAT AS NUISANCE DUST.
INGESTION:
NO DATA AVAILABLE
CHRONIC EFFECTS:
NO CHRONIC EFFECTS EXPECTED.
OTHER SYMPTOMS AFFECTED:
A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENED BY EXPOSURE TO THIS PRODUCT.
---------- 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. WASH CLOTHING BEFORE REUSE. IF IRRITATION DEVELOPS, SEEK PROMPT MEDICAL ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.
INGESTION:
DO NOT INDUCE VOMITING! IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES ARE INGESTED. HOWEVER, MEDICAL ADVICE SHOULD BE OBTAINED.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCTS:
OXIDES OF NITROGEN AND SULFUR, 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. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.
OBTAIN APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.

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

PRECAUTIONARY LABELING GASSTOP ADDITIVE 516.003440

CAUTION!
MAY CAUSE MILD EYE AND RESPIRATORY TRACT IRRITATION.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N MIXTURE OR PURE MATERIAL: NOT E

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 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 NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *

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.

MATERIAL SAFETY DATA SHEET DATE: 12-15-97
HALLIBURTON ENERGY SERVICES REVISED DATE 01-17-96
DUNCAN, OKLAHOMA 73536

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: KCL POTASSIUM CHLORIDE PART NUMBER: 070153020
PKG QTY: 50 LB BAG APPLICATION: INHIBIT CLAY SWELLING
SERVICE USED: FRACTURING

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

COMPONENT+ + + + + + + + +	PERCENT	TLV	PEL
POTASSIUM CHLORIDE	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE TO GREY SOLID, CRYSTALS
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	1.990
BULK DENSITY	72.80 LB/CU.FT.
PH	9.2 FOR 1% SOL
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	25.5
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE(BUTYL ACETATE=1)	N/A
VAPOR DENSITY	N/A
VAPOR PRESSURE (MMHG)	N/A
BOILING POINT(760 MMHG)	70 F / -17 C
POUR POINT	N/A
FREEZE POINT	N/A
SOLUBILITY IN SEAWATER	34.7%
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA(704) RATING:
HEALTH 1 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT N/A
AUTOIGNITION TEMPERATURE ND ND
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER ND UPPER ND

EXTINGUISHING MEDIA:
USE MEDIA APPROPRIATE FOR SURROUNDING MATERIALS.
SPECIAL FIRE FIGHTING PROCEDURES:
NOT APPLICABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NOT APPLICABLE.

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

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

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: IRR EYE-RBT 500 MG/24H MLD
TOX ORL-RAT LD50:2430 MG/KG
AQU TLM96: 100-330 PPM (BROWN SHRIMP)

PRODUCT TLV: 10 MG/M3 (N)

---------- EFFECTS OF EXPOSURE ----------
ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
DUST MAY CAUSE SEVERE EYE IRRITATION.
SKIN:
DUST MAY CAUSE MODERATE IRRITATION.
INHALATION:
MAY BE IRRITATING.
INGESTION:
IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA AND VOMITING, DIARRHEA, AND COLLAPSE MAY RESLLT FROM INGESTION.
CHRONIC EFFECTS:
NO DATA AVAILABLE
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:
IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES WHILE REMOVING CONTAMINATED CLOTHING AND SHOES. IF IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION. WASH CLOTHING BEFORE REUSE.
INHALATION:
REMOVE TO FRESH AIR. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION,
INGESTION:
DO NOT INDUCE VOMITING! GIVE UP TO TWO (2) QUARTS OF WATER TO DILUTE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION.

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

STABILITY: STABLE
CONDITIONS TO AVOID:
NOT APPLICABLE.
INCOMPATIBILITY (MATERIALS TO AVOID):
NONE KNOWN.
HAZARDOUS DECOMPOSITION PRODUCTS:
NONE KNOWN.
HAZARD POLYMERIZATION: WON"T OCCUR
CONDITIONS TO AVOID:
NOT APPLICABLE.

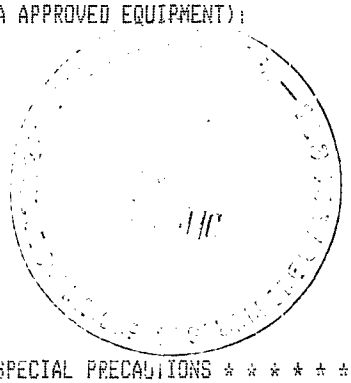
* * * * * * * * * * SECTION VII - SPILL OR LEAK PROCEDURES * * * * * * * * * *

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
USE PROTECTIVE EQUIPMENT. SWEEP UP AND REMOVE. AVOID CREATING OR INHALING DUST.
WASTE DISPOSAL METHOD:
IF NOT CONTAMINATED, REUSE PRODUCT.

GET APPROVAL FROM LANDFILL OPERATOR AND TRANSPORT TO SANITARY LANDFILL.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):
TOXIC DUST/MIST RESPIRATOR.
VENTILATION:
USE ONLY WITH ADEQUATE VENTILATION.
PROTECTIVE GLOVES:
NORMAL WORK GLOVES.
EYE PROTECTION:
DUST PROOF GOGGLES.
OTHER PROTECTIVE EQUIPMENT:
NORMAL WORK COVERALLS.



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

PRECAUTIONARY LABELING KCL POTASSIUM CHLORIDE 070.153020

WARNING!
MAY CAUSE SKIN AND RESPIRATORY IRRITATION.
MAY CAUSE SEVERE EYE IRRITATION.
FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:
STORE IN DRY LOCATION TO PROTECT PRODUCT QUALITY. REQUIRES COVERED STORAGE.
AVOID CREATING OR INHALING DUST.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.
CONTAINER DISPOSITION:
EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE.
RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING
LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:
NOT RESTRICTED

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

EPA SUPERFUND(SARA) TITLE III - HAZARD CLASSIFICATION & ASSOCIATED INFORMATION
FIRE: N PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y
CHRONIC (DELAYED): N 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

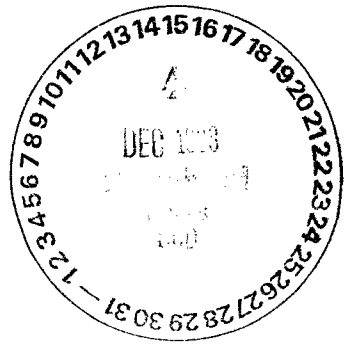
D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
CHEMICAL CONTAINS NO TOXIC INGREDIENTS

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

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

IF PRODUCT BECOMES A WASTE, IT DOES NOT MEET THE CRITERIA OF A
HAZARDOUS WASTE

* *


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 —
DEC 1973

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.

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

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

Form C-
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District O

RECEIVED
DEC 11 1998

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Champion Tech.
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Yard
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter unknown
3. Address of Facility Operator P. O. Box 388, Hobbs,	8. State NM
7. Location of Material (Street Address or ULSTR) 4001 S. Hwy. 18	Hobbs, NM

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

Contaminated soil from Champion Technologies, Inc. Hobbs Yard.
I have attached analytical date, chain of custody and certificate of waste status.

12-002

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

SIGNATURE: _____ TITLE: Manager DATE: 12-9-98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: _____ TITLE: Env. Geologist DATE: 12-11-98


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Champion Technologies, Inc.

ADDRESS P. O. Box 450499 Houston, Texas 77245-0499

GENERATING SITE 4001 South Highway 18, Hobbs

COUNTY Lea STATE NM

TYPE OF WASTE Soil

ESTIMATED VOLUME 4 55-Gallon Drums

GENERATING PROCESS Remediation/Excavation of Soil

REMARKS Laboratory Analysis attached - Sample T96412

NMOCD FACILITY Controlled Recovery Inc., Hobbs, NM

TRUCKING COMPANY NA

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT Ralph Corry
SIGNATURE

NAME Ralph Corry
PRINTED

ADDRESS P. O. Box 450499

Houston, TX 77245-0499

DATE 12/9/98

12/09/98 WED 14:37 FAX 915 563 9526 PESC MIDLAND 003

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
PHILIP SERVICES CORPORATION
Attention: Jeff Kindley
7904 I-20 West
Midland, TX 79706

May 05 1998
Receiving Date: 04/17/98
Sample Type: Soil
Project No: 19423
Project Location: Hobbs, New Mexico

Prep Date: 04/29/98
Analysis Date: 04/29/98
Sampling Date: 04/15/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Champion Technologies, Inc.

TA#	FIELD CODE	PAINT FILTER TEST
T96412	Soil Comp.	Pass

METHODS: EPA SW 846-9095.
CHEM ST: JS

Director, Dr. Blair Leftwich

DATE

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
PHILIP ENVIRONMENTAL
Attention: Jeff Kindley
7904 I-20 West
Midland, TX 79706

May 05, 1998
Receiving Date: 04/17/98
Sample Type: Soil
Project No: 19423
Project Location: Hobbs, New Mexico

Extraction Date: 04/20/98
Analysis Date: 04/22/98
Sampling Date: 04/15/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Champion Technologies, Inc.

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T96412 Soil Comp.	QC	RPD	%EA	%IA
Vinyl Chloride	0.20	0.001	ND	80	19	86	80
1,1-Dichloroethene	0.70	0.001	ND	98	16	80	98
Methyl Ethyl Ketone	200.0	0.010	ND	84	11	85	84
Chloroform	6.00	0.001	ND	92	13	106	92
1,2-Dichloroethane	0.50	0.001	ND	88	18	87	88
Benzene	0.50	0.001	ND	96	9	95	96
Carbon Tetrachloride	0.50	0.001	ND	91	5	113	91
Trichloroethene	0.50	0.001	ND	120	4	94	120
Tetrachloroethene	0.70	0.001	ND	119	5	83	119
Chlorobenzene	100.00	0.001	ND	112	3	90	112
1,4-Dichlorobenzene	7.50	0.001	ND	118	4	99	118

SURROGATES	% Recovery
Dibromofluoromethane	95
Toluene-d8	99
4-Bromofluorobenzene	94

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: AG

Director, Dr. Blair Leftwich

5-5-98
DATE

007

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
PHILIP ENVIRONMENTAL
Attention: Jeff Kindley
7904 I-20 West
Midland, TX 79706

June 11, 1998
Receiving Date: 04/17/98
Sample Type: Soil
Project No: 19423
Project Location: Hobbs, New Mexico

Prep Date: 04/29/98
Analysis Date: 04/29/98
Sampling Date: 04/15/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Champion Technologies, Inc.

TA#	FIELD CODE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P,O XYLENE (mg/kg)	TOTAL BTEX (mg/kg)
T96412	Soil Comp.	<0.050	0.322	0.134	1.73	2.19
QC	Quality Control	0.111	0.112	0.113	0.338	
REPORTING LIMIT		0.050	0.050	0.050	0.050	
RPD		0	1	2	3	
% Extraction Accuracy		108	109	114	123	
% Instrument Accuracy		111	112	113	113	

METHODS: EPA SW 846-8021B, 5030.
CHEMIST: JG
BTEX SPIKE: 5 mg/kg BTEX.
BTEX QC: 0.100 mg/L BTEX.

Director, Dr. Blair Leftwich

6-11-98
Date

PESC MIDLAND 12/09/98 WED 14:38 FAX 915 563 9526

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
PHILIP ENVIRONMENTAL
Attention: Jeff Kindley
7904 I-20 West
Midland, TX 79706

June 11, 1998
Receiving Date: 04/17/98
Sample Type: Soil
Project No 19423
Project Location: Hobbs, New Mexico

Prep Date: 04/23/98
Analysis Date: 04/23/98
Sampling Date: 04/15/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Champion Technologies, Inc.

TA#	FIELD CODE	TRPHC (mg/kg)
T96412	Soil Comp.	6,900
QC	Quality Control	96
REPORTING LIMIT		10
RPD		7
% Extraction Accuracy		104
% Instrument Accuracy		96

METHODS: EPA SW 846-3550; EPA 418.1.
CHEMIST: MS
TRPHC SPIKE: 250 mg/kg TRPHC.
TRPHC CC: 100 mg/L TRPHC.

Director, Dr. Blair Leftwich

6-11-98
DATE

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TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

May 21, 1998
Receiving Date: 04/17/98
Sample Type: Soil
Project No: 19423
Project Location: Hobbs, New Mexico

ANALYTICAL RESULTS FOR
PHILIP ENVIRONMENTAL
Attention: Jeff Kindley
7904 I-20 West
Midland, TX 79706

Extraction Date: 05/17/98
Analysis Date: 05/19/98
Sampling Date: 04/15/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Champion Technologies, Inc.

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T96412	Soil Comp.	<0.10	<0.10	<0.02	<0.05	<0.10	<0.05	0.28	<0.010
ICV		1.0	1.0	1.0	1.0	1.0	0.19	1.0	0.047
CCV		0.99	1.0	0.99	1.0	0.99	0.19	1.0	0.046
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.10	0.010
RPD		10	0	9	15	5	0*	4	2
% Extraction Accuracy		100	105	115	80	90	80*	100	110
% Instrument Accuracy		99	100	99	100	99	95	100	93

***NOTE: LCS/LCSD used for RPD and Extraction Ag due to high dilution required for matrix sample.**

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: SA
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 20 mg/L As, Se, Cd, Cr, Pb, Ba; 10 mg/L Ag; 0.050 mg/L Hg.
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.20 mg/L Ag; 0.050 mg/L Hg.

Director, Dr. Blair Leftwich

5-21-98
Date

PESC MIDLAND 12/09/98 WED 14:38 FAX 915 563 9526

004 PESC MIDLAND 12/09/98 WED 14:37 FAX 915 563 9526

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
PHILIP ENVIRONMENTAL
Attention: Jeff Kindley
7904 I-20 West
Midland, TX 79706

May 05, 1998
Receiving Date: 04/17/98
Sample Type: Soil
Project No: 19423
Project Location: Hobbs, New Mexico

Extraction Date: 04/21/98
Analysis Date: 04/21/98
Sampling Date: 04/15/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Champion Technologies, Inc.

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY —	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T96411	Drum Sludge	Reactive	<10	550	Non-corrosive	4.3	Non-Ignitable
T96412	Soil Comp.	Non-reactive	<10	<2.5	Non-corrosive	6.6	Non-Ignitable
QC	Quality Control	—	—	—	—	8.0	—
RPD		0	0	0	0	0	0
% Extraction Accuracy		—	—	—	—	—	—
% Instrument Accuracy		—	—	—	—	100	—

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

5-5-98
DATE

96407-13

Page 1 of 1

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 309 / 210

Company Name: Philip Services Corporation
Phone #: (915) 563-0118
Address: 7904 IH 20 West, Midland, Tx 79706
Fax #: (915) 563-9526
Contact Person: Jeffrey Kindley
Invoice to: (If different from above) Same As Above
Project #: 19423
Project Name: Champion Technologies Inc
Project Location: Hobbs, New Mexico
Sampler Signature: Jeffrey Kindley

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
96407	Area 1	1			✓							04/15/98	0940
08	Area 2	1			✓							04/15/98	1000
09	Area 3	1			✓							04/15/98	1030
10	Area 4	1			✓							04/15/98	1140
11	Drum Sludge	1			✓							04/15/98	1200
12	Soil Comp	1			✓							04/15/98	1215
13	Water Comp	1	1 Liter	✓								04/15/98	1220

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	RAH 4270 Paint Filter	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	RCI	TCLP except Herbicides & Pesticides	Volatiles	Semi-Volatiles	Turn Around Time if different from standard
X	X	X	X		Pb									✓	✓	✓	✓	
X	X	X	X		Pb									✓	✓	✓	✓	
X	X	X	X		Pb									✓	✓	✓	✓	
X	X	X	X		Pb									✓	✓	✓	✓	
					Pb									✓	✓	✓	✓	
✓	✓	✓			Pb									✓	✓	✓	✓	
														✓	✓	✓	✓	

TCLP VOC + TCLP SVOC

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Jeffrey Kindley	April 16, 1998	12:40 PM	Helen Shelton	4/16/98	12:40 PM
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Helen Shelton	4/16/98	6:00 PM			
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Windham	4-17-98	10:20 AM

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

7 Samples - HS

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp -1 °
Log-in Review

REMARKS:
Normal Turnaround
Changes per Sharon 4-
5-8

Carrier # Greyhound 155 758 905

PESC MIDLAND 915 563 9526 FAX 15:31 WED 12/09/98 001

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

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

RECEIVED
DEC 08 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Odessa Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Malco & Henderson
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8870 W Loop 338	Odessa, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from Weatherford Odessa's sludge and waste water. The material was generated by steam cleaning oilfield tools. I have included a certificate of waste, a chain of custody, and a Texas waste code.

12-001

Estimated Volume 400 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 12/04/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (5050393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: J Martyn J Kuhl TITLE: Env Ecologist DATE: 12-9-98

Fishing & Rental Services

Weatherford Enterra

Weatherford Enterra U.S., Inc.
8870 West Loop 338 North
Odessa, Texas 79764

P.O. Drawer 112
Odessa, Texas 79760

915/550-9297
Telefax: 915/550-9323

November 30, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Weatherford requests approval to dispose of 400 bbl (16,800 gallons) of waste water and sludge generated by Weatherford . Weatherford has generated this waste from washing/steam cleaning oil field tools.

Weatherford generates this waste at:
8870 West Loop 338 North
Odessa, Texas 79764
TX ID #75327
EPA ID # TXD988025755

The transports of this waste will be Henderson Environmental of Lubbock, Texas and Malco Trucking of Odessa.

Henderson Environmental is at:
P.O. Box 2507
Lubbock, Tx 79408
(806) 744-6278
TX ID #83346
EPA ID # TXD000006411

Malco Trucking Inc. is at:
P.O. Box 14787
Odessa, Tx 79768
(915) 563-9220
TX ID #76665
EPA ID # TXD988042339

Please find attached copies of the certificate of waste, Texas Notice of Registration (NOR) analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me (915) 550-9297.

Sincerely,

Carolyn Burke
Environmental

Attachments

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR **WEATHERFORD**

ADDRESS **8870 WEST LOOP 338 ODESSA, TX. 79764**

GENERATING SITE **8870 WEST LOOP 338 ODESSA, TX 79764**

COUNTY **ECTOR** STATE **TEXAS**

TYPE OF WASTE **SLUDGE AND WASTE WATER**

ESTIMATED VOLUME **400 BBL. (16,800 GALLONS)**

GENERATING PROCESS **STEAM CLEANING OIL FIELD TOOLS**

REMARKS

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY **MALCO (915)563-9220, HENDERSON (806)744-6278**

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will by analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Carolyn Burke
SIGNATURE

NAME **CAROLYN BURKE**
PRINTED

ADDRESS **8870 WEST LOOP 338 N**

ODESSA, TX. 79764

DATE **11/30/98**

ANALYTICAL REPORT 1-71344

for

Nickell Environmental

Project Manager: Chris E. Stapp

Project Name: Sump Removal

Project Id: WEA 116-0000

June 20, 1997

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

11381 Meadowglen Lane Suite L * Houston, Texas 77082-2647
Phone (281) 589-0692 Fax (281) 589-0695

XENCO Laboratories
11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio

June 20, 1997

Project Manager: Chris E. Stapp
Nickell Environmental
11246 S. Post Oak #306
Houston, TX 77035

Reference: **XENCO Report No.: 1-71344**
Project Name: Sump Removal
Project ID: WEA 116-0000
Project Address: Odessa, TX WLP

Dear Chris E. Stapp:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-71344. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-71344 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie Condemoto, Ph.D.
QA/QC Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified in California, Oklahoma, Kansas, Arkansas, and approved by numerous other States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY!

XENCO Laboratories

11381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab Batch # 171344

Contractor: Nickell Environmental Phone: (915) 520-4700
Address: 19 Barry Rd Midland TX 79706
Project Name: Sump removal Project Director: Chan Patel
Project Location: Odessa TX WLP Project Manager: Chris Stapp
Sampler Signature: Project No.: WEA 116-0000

No. coolers this shipment:
Carrier: FEDEX
Airbill No.: 1477017975
Contractor COC #
Quote #:
P.O. No.:

SAMPLE CHARACTERIZATION

	Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P, G	Preservative Ice	Preservative Other	Sample Description	No of Containers Total	BTEX (8020/8020-8021)	TPH (418.1)	RCI	TCLP metals	TCLP VOA	TCLP SVOA	Please Hold	Turn-around: ASAP / 24 hrs / 48 hrs / Standard	Remarks	LAB ID #
1	S1	6/11	2:15			X			32oz	G	X		Sump	1		X	X	X	X	X				1
2	S2	6/11	2:20			X			32oz	G	X		Sump	1		X	X	X	X	X				2
3																								3
4																								4
5																								5
6																								6
7																								7
8																								8
9																								9
10																								10

Waste Oil
PIT No: Tank No:
Dal Dies Ker Unknown

Relinquished by: Signature	Date	Time	Received by: Signature	Date	Time
[signature]	6/11/97	2:15pm			
			Received For Laboratory By: [signature]	6-12-97	10:00

Remarks

Pink (Contractor) Yellow & White (Lab)

* Pre-scheduling is recommended

Precision Analytical Services

JUL-07-1997 10:50 NICKELL ENVIROMENTAL P.03

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

Nickell Environmental

Project ID: WEA 116-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Project Name: Sump Removal

XENCO COC#: 1-71344
Date Received in Lab: Jun 12, 1997 10:00 by RT
XENCO contact : Scott Sample/Edward Yonemoto

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Date and Time: Addition Requested	Date and Time: Extraction	Date and Time: Analysis
1	S1 Sump	171344-001	TPH	EPA 418.1	ppm	Standard	Jun 11, 1997 14:15		Jun 19, 1997 by JS	Jun 19, 1997 14:52 by JS
2			pH	SW846-9040	S.U.	Standard	Jun 11, 1997 14:15		Jun 12, 1997 by CY	Jun 12, 1997 16:20 by CY
3			Ignit/F.P.	SW-846 1010	deg. F	Standard	Jun 11, 1997 14:15		Jun 13, 1997 by CG	Jun 13, 1997 10:40 by CG
4			Cyanide RCI	SW846 7.3.3	mg/L	Standard	Jun 11, 1997 14:15		Jun 14, 1997 by CG	Jun 14, 1997 13:05 by CG
5			Sulfide RCI	SW846 7.3.4	mg/L	Standard	Jun 11, 1997 14:15		Jun 14, 1997 by CG	Jun 14, 1997 12:00 by CG
6			TCLP Metals	SW846-1311/60	mg/L	Standard	Jun 11, 1997 14:15		Jun 12, 1997 by JS	Jun 13, 1997 15:58 by SA
7			TCLP Mercury	EPA 1311/7470	mg/L	Standard	Jun 11, 1997 14:15		Jun 12, 1997 by JS	Jun 13, 1997 13:10 by EZ
8			TCLP Vol.	EPA 1311/8260	mg/L	Standard	Jun 11, 1997 14:15		Jun 19, 1997 by CE	Jun 19, 1997 15:44 by CE
9			TCLP S.V.	EPA 1311/8270	mg/L	Standard	Jun 11, 1997 14:15		Jun 17, 1997 by CY	Jun 17, 1997 16:30 by LC
10	S2 Sump	171344-002	TPH	EPA 418.1	ppm	Standard	Jun 11, 1997 14:20		Jun 19, 1997 by JS	Jun 19, 1997 14:54 by JS
11			pH	SW846-9040	S.U.	Standard	Jun 11, 1997 14:20		Jun 12, 1997 by CY	Jun 12, 1997 16:25 by CY
12			Ignit/F.P.	SW-846 1010	deg. F	Standard	Jun 11, 1997 14:20		Jun 13, 1997 by CG	Jun 13, 1997 10:50 by CG
13			Cyanide RCI	SW846 7.3.3	mg/L	Standard	Jun 11, 1997 14:20		Jun 14, 1997 by CG	Jun 14, 1997 13:10 by CG
14			Sulfide RCI	SW846 7.3.4	mg/L	Standard	Jun 11, 1997 14:20		Jun 14, 1997 by CG	Jun 14, 1997 12:05 by CG
15			TCLP Metals	SW846-1311/60	mg/L	Standard	Jun 11, 1997 14:20		Jun 12, 1997 by JS	Jun 13, 1997 16:05 by SA
16			TCLP Mercury	EPA 1311/7470	mg/L	Standard	Jun 11, 1997 14:20		Jun 12, 1997 by JS	Jun 13, 1997 13:11 by EZ
17			TCLP Vol.	EPA 1311/8260	mg/L	Standard	Jun 11, 1997 14:20		Jun 19, 1997 by CE	Jun 19, 1997 16:23 by CE
18			TCLP S.V.	EPA 1311/8270	mg/L	Standard	Jun 11, 1997 14:20		Jun 17, 1997 by CY	Jun 17, 1997 17:16 by LC

JUL-07-1997 10:51 NICKELL ENVIROMENTAL P.04

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71344

Nickell Environmental

Project Name: Sump Removal

Project ID: WEA 113-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Date Received in Lab: Jun 12, 1997 10:00 by RT
Date Report Faxed: Jun 20, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171344-001 S1	171344-002 S2				
Ignit./F.P. Analyzed by EPA 1010		Date Analyzed - Analytical Results deg. F					
		Jun 13, 1997	Jun 13, 1997				
Ignitability, Pensky-Martens		> 180	> 180				
TCLP Metals Analyzed by EPA1311/6010		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 13, 1997	Jun 13, 1997				
Arsenic		< 0.6	< 0.6				
Barium		< 1.1	< 1.1				
Cadmium		< 0.11	< 0.11				
Chromium		< 0.6	< 0.6				
Lead		< 0.6	< 0.6				
Silver		< 0.09	< 0.09				
Selenium		< 0.4	< 0.4				
TCLP Mercury Analyzed by EPA 7470		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 13, 1997	Jun 13, 1997				
Mercury		< 0.020	< 0.020				
Cyanide RCI Analyzed by SW846 7.3.3		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 14, 1997	Jun 14, 1997				
Cyanide		< 0.5	< 0.5				
Sulfide RCI Analyzed by SW846 7.3.4		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 14, 1997	Jun 14, 1997				
Sulfide		< 0.5	< 0.5				
pH Analyzed by EPA 9040		Date Analyzed - Analytical Results S.U.					
		Jun 12, 1997	Jun 12, 1997				
pH, Electrometric		8.10	8.00				
TCLP S.V. Analyzed by EPA 8270		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 17, 1997	Jun 17, 1997				

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71344

Nickell Environmental

Project Name: Sump Removal

Project ID: WEA 116-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Date Received in Lab: Jun 12, 1997 10:00 by RT
Date Report Faxed: Jun 20, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:*	171344-001 S1	171344-002 S2				
1,4-Dichlorobenzene		< 1.00	< 1.00				
2,4-Dinitrotoluene		< 0.10	< 0.10				
Hexachlorobenzene		< 0.08	< 0.08				
Hexachlorobutadiene		< 0.40	< 0.40				
Hexachloroethane		< 1.00	< 1.00				
2-Methylphenol		< 10.00	< 10.00				
3-Methylphenol		< 10.00	< 10.00				
4-Methylphenol		< 10.00	< 10.00				
Nitrobenzene		< 1.00	< 1.00				
Pentachlorophenol		< 10.00	< 10.00				
Pyridine		< 1.00	< 1.00				
2,4,5-Trichlorophenol		< 10.00	< 10.00				
2,4,6-Trichlorophenol		< 1.00	< 1.00				
TCLP Vol. Analyzed by EPA1311/8260		Date Analyzed - Analytical Results					**ppm (mg/L - mg/Kg)**
		Jun 19, 1997	Jun 19, 1997				
Benzene		< 0.1	< 0.1				
2-Butanone		< 8.0	< 8.0				
Carbon Tetrachloride		< 0.1	< 0.1				
Chloroform		< 0.5	< 0.5				
1,2-Dichloroethane		< 0.1	< 0.1				
1,1-Dichloroethene		< 0.1	< 0.1				
Tetrachloroethene		< 0.1	< 0.1				
Trichloroethene		< 0.1	< 0.1				
Vinyl chloride		< 0.05	< 0.05				
Chlorobenzene		< 4.0	< 4.0				

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Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71344

Nickell Environmental

Project Name: Sump Removal

Project ID: WEA 116-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Date Received in Lab: Jun 12, 1997 10:00 by RT
Date Report Faxed: Jun 20, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171344-001	171344-002				
	Field ID:	S1	S2				
	Depth:						
TPH Analyzed by EPA 418.1		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 19, 1997	Jun 19, 1997				
Total Petroleum Hydrocarbons		11300	18400				

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Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch - 17A11A42

SW- 846 1010 Ignitability, Pensky- Martens

Date Validated: Jun 16, 1997 16:45
Date Analyzed: Jun 13, 1997 10:20
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171332- 001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	deg. F	deg. F	deg. F	%	%	
Ignitability, Pensky-Martens	>180	>180	75-180	0.0	15.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A18C40

SW846- 1311/6010 TCLP Metals

Date Validated: Jun 14, 1997 09:30
Date Analyzed: Jun 13, 1997 14:34
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: SA
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Arsenic	< 0.22	1.97	2.22	0.22	88.7	65-135	
Barium	< 0.11	1.22	1.11	0.11	109.9	65-135	
Cadmium	< 0.056	0.387	0.444	0.056	87.2	65-135	
Chromium	< 0.22	0.94	1.11	0.22	84.7	65-135	
Lead	< 0.22	1.92	2.22	0.22	86.5	65-135	
Selenium	< 0.22	2.15	2.22	0.22	96.8	65-135	
Silver	< 0.089	0.654	0.888	0.089	73.6	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A18C40

SW846- 1311/6010 TCLP Metals

Date Validated: Jun 14, 1997 09:30
Date Analyzed: Jun 13, 1997 15:02
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: SA
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 171354- 009	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC	[E] LIMITS	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC	[I] LIMITS	[G] Qualifier
Parameter				Relative Difference	Relative Difference			Matrix Spike Recovery	Recovery Range	
	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Arsenic	< 0.22	< 0.22	0.22	N.C	25.0	2.1	2.2	93.2	65-135	
Barium	1.79	1.82	0.11	1.7	25.0	2.8	1.1	86.5	65-135	
Cadmium	< 0.056	< 0.056	0.056	N.C	25.0	0.38	0.44	86.5	65-135	
Chromium	< 0.22	< 0.22	0.22	N.C	25.0	1.0	1.1	85.6	65-135	
Lead	< 0.22	< 0.22	0.22	N.C	25.0	2.0	2.2	89.2	65-135	
Selenium	< 0.22	< 0.22	0.22	N.C	25.0	2.2	2.2	100.8	65-135	
Silver	< 0.089	< 0.089	0.089	N.C	25.0	0.73	0.89	82.4	65-135	

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

JUL-07-1997 10:53 NICKELL ENVIROMENTAL P.10

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A05B55

EPA 1311/7470 TCLP Mercury

Date Validated: Jun 14, 1997 09:45
Date Analyzed: Jun 13, 1997 12:59
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: EZ
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Mercury	< 0.0010	0.0018	0.0025	0.0010	72.0	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A05B55

EPA 1311/7470 TCLP Mercury

Date Validated: Jun 14, 1997 09:45
Date Analyzed: Jun 13, 1997 13:01
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: EZ
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 171354- 013	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS Relative Difference	[E] LIMITS Relative Difference	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC Matrix Spike Recovery	[I] LIMITS Recovery Range	[G] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Mercury	< 0.0010	< 0.0010	0.0010	N.C	25.0	0.0025	0.0025	100.0	65-135	

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

JUL-07-1997 10:54 NICKELL ENVIROMENTAL P.12

XENCO Laboratories

Certificate Of Quality Control for Batch 17A12B11

SW846 7.3.3 Reactive Cyanide

Date Validated: Jun 16, 1997 16:30
Date Analyzed: Jun 14, 1997 12:40
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC LIMITS Blank Spike Recovery %	[F] QC LIMITS Recovery Range %	[G] Qualifier
Cyanide	< 0.05	0.09	0.10	0.05	94.7	70-125	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch - 17A12B10

SW846 7.3.4 Reactive Sulfide

Date Validated: Jun 16, 1997 16:35
Date Analyzed: Jun 14, 1997 11:40
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC LIMITS Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Sulfide	< 0.50	6.48	6.80	0.50	95.3	70-125	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch: 17A13A82

EPA 150.1 pH, Electrometric

Date Validated: Jun 12, 1997 17:55
Date Analyzed: Jun 12, 1997 15:50
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CY
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171341-001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	S.U.	S.U.	S.U.	%	%	
pH, Electrometric	7.196	7.215	0 - 14	0.3	3.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch # 17A34C20

EPA 1311/8270 TCLP Semi-volatiles

Date Validated: Jun 18, 1997 14:01
Date Analyzed: Jun 17, 1997 14:59
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: LC
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Method Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifie
Acenaphthene	< 0.0020	0.0822	0.0886	0.1000	0.0020	31.0	7.5	82.2	88.6	46-118	
4-Chloro-3-Methylphenol	< 0.0010	0.0694	0.0630	0.1000	0.0010	42.0	9.7	69.4	63.0	23-97	
2-Chlorophenol	< 0.0040	0.0868	0.0900	0.1000	0.0040	40.0	3.6	86.8	90.0	27-123	
1,4-Dichlorobenzene	< 0.0040	0.0834	0.0960	0.1000	0.0040	28.0	14.0	83.4	96.0	36-97	
2,4-Dinitrotoluene	< 0.0010	0.0878	0.0946	0.1000	0.0010	38.0	7.5	87.8	94.6	24-96	
N-Nitroso-di-n-propylamine	< 0.0080	0.1010	0.1156	0.1000	0.0080	38.0	13.5	101.0	115.6	41-116	
4-Nitrophenol	< 0.0080	0.0372	0.0336	0.1000	0.0080	50.0	10.2	37.2	33.6	10-80	
Pentachlorophenol	< 0.0010	0.0664	0.0674	0.1000	0.0010	50.0	1.5	66.4	67.4	9-103	
Phenol	< 0.0040	0.0518	0.0466	0.1000	0.0040	42.0	10.6	51.8	46.6	12-89	
Pyrene	< 0.0040	0.0946	0.1070	0.1000	0.0040	31.0	12.3	94.6	107.0	26-127	
1,2,4-Trichlorobenzene	< 0.0040	0.0764	0.0842	0.1000	0.0040	28.0	9.7	76.4	84.2	39-98	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

JUL-07-1997 10:56 NICKELL ENVIRONMENTAL P.13

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A01045

SW846- 8260 Volatile Organic Analysis

Date Validated: Jun 20, 1997 12:45
Date Analyzed: Jun 19, 1997 17:42
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CE
Matrix: Liquid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 171402- 004 / Parameter	[A] Sample Result mg/L	[B] Matrix Spike Result mg/L	[C] Matrix Spike Duplicate Result mg/L	[D] Matrix Spike Amount mg/L	[E] Method Detection Limit mg/L	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifi.
Benzene	< 0.0010	0.0492	0.0492	0.0500	0.0010	11.0	0.0	98.4	98.4	76-127	
Chlorobenzene	< 0.0010	0.0492	0.0496	0.0500	0.0010	13.0	0.8	98.4	99.2	75-130	
1,1-Dichloroethene	< 0.0040	0.0421	0.0422	0.0500	0.0040	14.0	0.2	84.2	84.4	61-145	
Toluene	< 0.0010	0.0494	0.0479	0.0500	0.0010	13.0	3.1	98.8	95.8	76-125	
Trichloroethene	< 0.0030	0.0475	0.0480	0.0500	0.0030	14.0	1.0	95.0	96.0	71-120	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

JUL-07-1997 10:55 NICKELL ENVIRONMENTAL P.17

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A07E24

EPA 418.1 Total Petroleum Hydrocarbons

Date Validated: Jun 19, 1997 16:00
Date Analyzed: Jun 19, 1997 14:48
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: JS
Matrix: Liquid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Method Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifi
Total Petroleum Hydrocarbons	< 0.51	4.34	4.40	4.71	0.51	25.0	1.4	92.1	93.4	70-125	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

JUL-07-1997 10:57 NICKELL ENVIROMENTAL P.18
TOTAL P.18

75327 Weatherford U.S., Inc.

Solid Waste Registration Number: 75327 EPA Id: TXD988025755

Company Name: Weatherford U.S., Inc.
Site Name: Odessa-Tool
Site Location: 8870 W Loop 338 N, Odessa, TX
Contact: ~~Johnson, Mike~~ ?

Region: 7
County: 68 Ector
Title: Location Manager

Initial Registration Date: 05/06/1991
Last Amendment Date: 09/18/1995
Last Date NOR Computer update: 06/19/1996
Phone: 915-550-9297

Mailing Address: P. O. Drawer 112
Odessa, TX 79760-0112

Site Street Address: 8870 W Loop 338 N
Odessa, TX 79764-

Registration Status: Active
Registration Type: Generator
Generator Type: Non-industrial and/or municipal

Reporting Method: STEERS

Hazardous Waste Generation Status: Small Quantity Generator

Primary SIC Code: 1389 Oil & Gas Field Services, Not Elsewhere Found
Handler Status:

Operator Information
Name:
Phone:
Address:

Owner Information
Name: Weatherford U.S., Inc.
Phone:
Address: P.C. Box 27608
Suite 1C00
Houston, TX. 77227-7608

As of 09/18/1995 - the next unassigned sequence number for WASTES is 6032 and
the next unassigned sequence number for UNITS is 001.

003
TX WATER COMM
02/20/97 12:58

75327 Weatherford U.S., Inc.

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
00103071 1		Active	01/26/94	Off		No

Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

00116951 1		Active	01/26/94	Off		No

Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricant, dirt, paint, scale, and corrosion products/August 1993.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

60C1203H H		Active	08/05/94	Off	No	No

Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash

6002202H H		Active	08/05/94	Off		No

Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy aromatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1		Active	08/05/94	Off		No

Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

004 TX WATER COMM 02/20/97 12:58

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059032 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063102 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance. to be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

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005 TX WATER COMM 02/20/97 12:57

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
60092091 1	H	Active	08/05/94	Off		No

Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60102091 1 Active 08/05/94 Off No

Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipmentl - general maintenance.
Form Code: 209 Organic paint, ink, lacquer, or varnish
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No

Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.
Form Code: 409 Other non-halogenated organic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60122111 H Active 08/05/94 Off No

Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and equiment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.
Form Code: 211 Paint thinner or petroleum distillates
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60133191 1 Active 08/05/94 Off No

Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

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006 TX WATER COMM 02/20/97 12:58

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						

60143091H H Active 08/05/94 Off No
Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.
Form Code: 309 Batteries or battery parts, casings, cores
EPA Hazardous Waste Numbers: D002 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A55 Filter/Battery replacement
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

60153101 1 Active 08/05/94 Off No
Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.
Form Code: 310 Spent solid filters or adsorbents (inorganic)
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60163081 1 Active 08/05/94 Off No
Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60174061 1 Active 08/05/94 Off No
Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60182961 1 Active 08/05/94 Off No
Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60196951 1 Active 09/18/95 Off No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.
Form Code: 595 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge

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007 TX WATER COMM 02/20/97 12:58

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60203071 1 Active 08/05/94 Off No

Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No

Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 08/05/94 Off No

Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No

Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No

Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

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005 TX WATER COMM 02/20/97 12:58

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
60253101 H	H	Active	08/05/94	Off		No

Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1
Form Code: 310 Spent solid filters or adsorbents (inorganic)
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes:
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Paint filters/hazardous

60264891 1 Active 08/05/94 Off No

Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60283191 1 Active 12/28/94 Off No

Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

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60292091 H H Active 09/18/95 Off No No

Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60304891 1 Active 09/18/95 Off No

Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Wate includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

TX WATER COMM
02/20/97 12:59

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
6031109H	H	Active	09/18/95	Off	No	No

Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A03 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

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990001 H Active Off No

Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:

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* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

00196951	1	Inactive	09/18/95	NA	No	No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00234891	1	Inactive	09/18/95	NA	No	No

Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

010 TX WATER COMM 02/20/97 13:00

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

July 31, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-104
Project Location: Odessa, WLP

Extraction Date: 07/21/98 ✓ 12 dys.
Analysis Date: 07/22/98 ✓
Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Annual Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T102366 SS-1	CV	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	118	2	87	118
1,1-Dichloroethane	0.70	0.05	ND	119	2	100	119
Methyl Ethyl Ketone	200.0	0.5	ND	83	1	116	83
Chloroform	6.00	0.05	0.05	107	6	104	107
1,2-Dichloroethane	0.50	0.05	ND	107	7	91	107
Benzene	0.50	0.05	ND	110	2	106	110
Carbon Tetrachloride	0.50	0.05	ND	115	1	86	115
Trichloroethene	0.50	0.05	ND	117	2	110	117
Tetrachloroethene	0.70	0.05	ND	113	1	110	113
Chlorobenzene	100.00	0.05	ND	105	3	101	105
1,4-Dichlorobenzene	7.50	0.05	ND	110	1	109	110

SURROGATES	% Recovery
Dibromofluoromethane	85
Toluene-d8	88
4-Bromofluorobenzene	84

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: AG

Director, Dr. Blair Leftwich

7-31-98
DATE

TRACEANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

Sent By: TRACEANALYSIS; 7941298; 31 Jul'98 2:43PM;Job 151;Page 4/5 LP ENVIRONMENTAL PAGE 05

July 31, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-104
Project Location: Odessa, WLP

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

Prep Date: 07/18/98
Analysis Date: 07/18/98
Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Annual Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T102366	SS-1	Non-reactive	<10	<2.5	Non-corrosive	7.9	Nonignitable
QC	Quality Control	—	—	—	—	7.0	—
RPD		0	0	0	0	0	0
% Extraction Accuracy		—	—	—	—	—	—
% Instrument Accuracy		—	—	—	—	100	—

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

7-31-98
DATE

TRACEANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

July 31, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-104
Project Location: Odessa, WLP

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Annual Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T102366	SS-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.05	<0.10	<0.010
ICV		1.0	1.0	0.99	0.98	0.99	0.20	1.0	0.055
CCV		1.0	1.0	1.0	1.0	0.98	0.20	1.0	0.050
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.10	0.010
RPD		0	0	0	0	0	16	5	2
% Extraction Accuracy		95	100	95	95	95	106	105	98
% Instrument Accuracy		100	100	99	99	98	100	100	105
EXTRACTION DATE		07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/15/98
ANALYSIS DATE		07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: SA/HC
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 20 mg/L As, Se, Cd, Cr, Pb, Ba; 5.0 mg/L Ag; 0.050 mg/L Hg.
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.20 mg/L Ag; 0.050 mg/L Hg.

Director, Dr. Blair Leftwich

7-31-98
Date

Sent By: TRACEANALYSIS; 7941298; 31 Jul '98 2:42PM; Job 151; Page 3/5
LT ENVIRONMENTAL PAGE 04

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

July 31, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-104
Project Location: Odessa, WLP

Extraction Date: 07/13/98
Analysis Date: 07/29/98
Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Annual Sampling

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T102366 SS-1	CV	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	74	20	51	93
1,4-Dichlorobenzene	7.5	0.05	ND	74	16	94	93
o-Cresol	200.0	0.05	ND	76	12	73	95
m,p-Cresol	200.0	0.05	ND	77	20	118	96
Hexachloroethane	3.0	0.05	ND	74	8	111	93
Nitrobenzene	2.0	0.05	ND	77	17	98	96
Hexachlorobutadiene	0.5	0.05	ND	77	13	102	96
2,4,6-Trichlorophenol	2.0	0.05	ND	77	8	103	96
2,4,5-Trichlorophenol	400.0	0.05	ND	78	6	111	98
2,4-Dinitrotoluene	0.13	0.05	ND	73	0	100	91
2,4-D	10.0	0.05	ND	78	3	128	98
Hexachlorobenzene	0.13	0.05	ND	76	6	108	95
2,4,5-TP	1.0	0.05	ND	67	1	124	84
Pentachlorophenol	100.0	0.05	ND	80	5	94	100

Surrogates	% RECOVERY
2-Fluorophenol	24
Phenol-d6	13
Nitrobenzene-d5	59
2-Fluorobiphenyl	65
2,4,6-Tribromophenol	64
Terphenyl-d14	85

ND - Not Detected

Methods: EPA SW 846-1311, 8270.
CHEMIST: DG

Director, Dr. Blair Leftwich

7-31-98
DATE

TRACEANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Jul 15, 1998
Date Rec: 7/10/98
Project: 101-104
Proj Name: Annual Sampling
Proj Loc: Odessa,WLP

Lab Receiving # : 9807000175
Sampling Date: 7/9/98
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
102366	SS-1	Sludge	453,000
	Method Blank		<10.0
	Reporting Limit		10
	QC		103
	RPD		4
	% Extraction Accuracy		110
	% Instrument Accuracy		103

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPHC	EPA 3550	7/14/98	EPA 418.1	7/14/98	MS	100	250

Director, Dr. Blair Leftwich

7-15-98
Date

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794-1296 Fax (806) 794-1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #

Company Name: Llano Permian Environmental Phone #: (915)522-2133
Address: 1031 Andrews Hwy Midland TX 79701 Fax #: (915) 522-2180
Contact Person: Robbie Walker
Invoice to: (If different from above) Weatherford 9870 W Lp 338 Odessa TX 79764
Project #: 103-106 Project Name: annual Samplins
Project Location: Odessa WLp Sampler Signature: Robbie Walker

LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH				Turn Around Time if different from standard	Hold
	SS-1	2	L				X			Y		7/9/98	12:20			X			X	X	X	X										

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Robbie Walker	7/9/98	3:10PM	Helen Shelton	7/9/98	3:10 PM
Helen Shelton	7/9/98	6:00 PM			
			Received at Laboratory by:	Date:	Time:

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB COPY

LAB USE ONLY

REMARKS: please mix Samples well before running analysis. 7/31/98

Carrier # 5558758954

002 9 Dec'98 9:09AM; Job 8; Page 1/1
12/09/98 09:56 8505393615 TRACEANALYSIS; 7941298; CRI
Sent 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
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

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

Form C-13
Originated 8/8/

RECEIVED
DEC 02 1998
Environmental Bureau
Oil Conservation Division

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Haliburton Energy
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter CRI
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2311 South 1st Street	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Haliburton Artesia facilitie's wash water. The material was generated by make up water from former acid terminal. I have included a certificate of waste and a chain of custody.

11-007

Estimated Volume 4000 gallons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manger DATE: 11/30/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn J. Kelly TITLE: Env Geologist DATE: 12/2/98


NOV 1998
Received

1079

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Halliburton Energy Services

ADDRESS 2311 South 1st Street

GENERATING SITE Halliburton Energy Services - Artesia

COUNTY Eddy STATE NM

TYPE OF WASTE Water

ESTIMATED VOLUME ~ 4,000 gallons

GENERATING PROCESS Make up water from former Acid Terminal

REMARKS Water was removed from poly tanks Groundwater infiltrated the broken poly tank

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY CRI

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT J. McGinty
SIGNATURE

NAME Jim McGinty
PRINTED

ADDRESS 4100 Clinton Dr., 1107 H
Houston, TX 77020-6237

DATE 11-18-98

Liquid only .... 291-18 waste

Metals tested ok

TPH

110 ppm

Sludge 291-10 Sludge

Ph 6.12 ok

FP ok

Cy [redacted] ok

Sulf ok

TCLP Vol ND

Sol ND

Halliburton Health, Safety and Environmental

4100 Clinton (77020-6299) / Post Office Box 3 / Houston, TX 77001-0003

November 23, 1998

Mr. Ken Marsh
Controlled Recovery, Inc.
P. O. Box 388
Hobbs, TX 88241

RE: Halliburton Energy Services (HES) Facility
Artesia, Lea County, New Mexico
Water Disposal Information

Dear Mr. Marsh:

The water that Halliburton wishes to have disposed consisted of make up water from two neutralization tanks at our former acid terminal. The water was used to neutralize spent acid returning in our truck from a typical well acidizing project. The water and sludge has been analyzed and the laboratory reports will be sent to your office, Via Federal Express. The analytical results for the sludge indicated levels below the regulatory levels for all TCLP constituents. These results define the sludge as non-hazardous waste. The water estimated at 4,000 gallons was pumped from the tanks before the sludge was removed. Some groundwater may have also leaked into the tank through a large hole in one of the tanks. Halliburton feels that all of this water should be treated and disposed of as a non-exempt waste.

If you have any questions or comments, please contact me at 713-676-7898.

Sincerely,

Jim McGinty, P. G.
Project Manager

Cc: File

O:FEC\EXCESS\ARTESIA\W2001

FROM THE DESK OF

Mark Smith

11-23-98

KEN,

HERE IS A COMPLETE COPY OF THE ANALYTICAL REPORT FOR THE STOCKPILE AND WATER FROM THE HALLIBURTON SITE IN ARTESIA.

IF YOU HAVE ANY QUESTIONS PLEASE CALL ME AT 972-418-5936

THANKS,

Delta Environmental Consultants, Inc.

PROVIDING A COMPETITIVE EDGE

STAR ANALYTICAL

14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155
(817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-5431

ACCREDITED

Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
So. Tank - SW	8090291-01	Soil	9/24/98
So. Tank - EW	8090291-02	Soil	9/24/98
So. Tank - NW	8090291-03	Soil	9/24/98
So. Tank - WW	8090291-04	Soil	9/24/98
No. Tank - SW	8090291-05	Soil	9/24/98
No. Tank - EW	8090291-06	Soil	9/24/98
No. Tank - NW	8090291-07	Soil	9/24/98
No. Tank - WW	8090291-08	Soil	9/24/98
Stockpile	8090291-10	Soil	9/24/98
Sump	8090291-11	Soil	9/23/98
Cont.-Pit	8090291-12	Soil	9/23/98
Cont.- 1	8090291-13	Soil	9/23/98
Cont.- 2	8090291-14	Soil	9/23/98
Cont.- 3	8090291-15	Soil	9/23/98
Cont.- 4	8090291-16	Soil	9/23/98
Cont.- 5	8090291-17	Soil	9/23/98
Tank	8090291-18	Water	9/24/98
Pit Water	8090291-19	Water	9/24/98

Star Analytical, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Lari Hall, Project Manager

STAR ANALYTICAL

14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155
(817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-5431

ACCREDITED

Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Diesel Hydrocarbons (C12-C24) by EPA Method 8015 (modified)
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sump			8090291-11				Soil	
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		500	**16000**	mg/kg	1,D
Surrogate: o-Terphenyl	"	"	"	*49-170*		*NR*	*%*	*2,D*
Cont.-Pit			8090291-12				Soil	
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		10	**55**	mg/kg	3,D
Surrogate: o-Terphenyl	"	"	"	*49-170*		*110*	*%*	
Cont.- 1			8090291-13				Soil	
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		10	**56**	mg/kg	4,D
Surrogate: o-Terphenyl	"	"	"	*49-170*		*NR*	*%*	*2,D*
Cont.- 2			8090291-14				Soil	
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		1.0	**7.5**	mg/kg	
Surrogate: o-Terphenyl	"	"	"	*49-170*		*88*	*%*	
Cont.- 3			8090291-15				Soil	
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		1.0	**17**	mg/kg	
Surrogate: o-Terphenyl	"	"	"	*49-170*		*130*	*%*	
Cont.- 4			8090291-16				Soil	5
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		1.0	**5.4**	mg/kg	
Surrogate: o-Terphenyl	"	"	"	*49-170*		*82*	*%*	
Cont.- 5			8090291-17				Soil	
Diesel Range Hydrocarbons	09V8445	9/28/98	9/30/98		1.0	ND	mg/kg	
Surrogate: o-Terphenyl	"	"	"	*49-170*		*88*	*%*	
Pit Water			8090291-19				Water	
Diesel Range Hydrocarbons	09V8439	9/28/98	9/28/98		2.0	**8.2**	mg/l	6,D
Surrogate: o-Terphenyl	"	"	"	*49-170*		*74*	*%*	

Star Analytical, Inc.

**Refer to end of report for text of notes and definitions.*

L Hall

Lari Hall, Project Manager

STAR ANALYTICAL

14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155
(817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-5431

ACCREDITED

Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
So. Tank - WW			**8090291-04**				**Soil**	
Acetone	10V8023	10/1/98	10/1/98		250	ND	ug/kg	D
Benzene	"	"	"		20	ND	"	D
Bromobenzene	"	"	"		20	ND	"	D
Bromochloromethane	"	"	"		20	ND	"	D
Bromodichloromethane	"	"	"		20	ND	"	D
Bromoform	"	"	"		20	ND	"	D
Bromomethane	"	"	"		20	ND	"	D
2-Butanone	"	"	"		100	ND	"	D
n-Butylbenzene	"	"	"		20	ND	"	D
sec-Butylbenzene	"	"	"		20	ND	"	D
tert-Butylbenzene	"	"	"		20	ND	"	D
Carbon disulfide	"	"	"		20	ND	"	D
Carbon tetrachloride	"	"	"		20	ND	"	D
Chlorobenzene	"	"	"		20	ND	"	D
Chloroethane	"	"	"		20	ND	"	D
Chloroform	"	"	"		20	ND	"	D
Chloromethane	"	"	"		20	ND	"	D
2-Chlorotoluene	"	"	"		20	ND	"	D
4-Chlorotoluene	"	"	"		20	ND	"	D
Dibromochloromethane	"	"	"		20	ND	"	D
1,2-Dibromo-3-chloropropane	"	"	"		20	ND	"	D
1,2-Dibromoethane	"	"	"		20	ND	"	D
Dibromomethane	"	"	"		20	ND	"	D
1,2-Dichlorobenzene	"	"	"		20	ND	"	D
1,3-Dichlorobenzene	"	"	"		20	ND	"	D
1,4-Dichlorobenzene	"	"	"		20	ND	"	D
Dichlorodifluoromethane	"	"	"		20	ND	"	D
1,1-Dichloroethane	"	"	"		20	ND	"	D
1,2-Dichloroethane	"	"	"		20	ND	"	D
1,1-Dichloroethene	"	"	"		20	ND	"	D
cis-1,2-Dichloroethene	"	"	"		20	ND	"	D
trans-1,2-Dichloroethene	"	"	"		20	ND	"	D
1,2-Dichloropropane	"	"	"		20	ND	"	D
1,3-Dichloropropane	"	"	"		20	ND	"	D
2,2-Dichloropropane	"	"	"		20	ND	"	D
1,1-Dichloropropene	"	"	"		20	ND	"	D
cis-1,3-Dichloropropene	"	"	"		20	ND	"	D
trans-1,3-Dichloropropene	"	"	"		20	ND	"	D
Ethylbenzene	"	"	"		20	**310**	"	D
Hexachlorobutadiene	"	"	"		20	ND	"	D
2-Hexanone	"	"	"		100	ND	"	D

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
So. Tank - WW (continued)			8090291-04				Soil	
Isopropylbenzene	10V8023	10/1/98	10/1/98		20	**130**	ug/kg	D
p-Isopropyltoluene	"	"	"		20	ND	"	D
Methylene chloride	"	"	"		500	ND	"	D
Methyl tert-butyl ether	"	"	"		20	ND	"	D
4-Methyl-2-pentanone	"	"	"		100	ND	"	D
Naphthalene	"	"	"		200	**4900**	"	D
n-Propylbenzene	"	"	"		20	**510**	"	D
Styrene	"	"	"		20	ND	"	D
1,1,1,2-Tetrachloroethane	"	"	"		20	ND	"	D
1,1,2,2-Tetrachloroethane	"	"	"		20	ND	"	D
Tetrachloroethene	"	"	"		20	ND	"	D
Toluene	"	"	"		20	**1200**	"	D
1,2,3-Trichlorobenzene	"	"	"		20	ND	"	D
1,2,4-Trichlorobenzene	"	"	"		20	ND	"	D
1,1,1-Trichloroethane	"	"	"		20	ND	"	D
1,1,2-Trichloroethane	"	"	"		20	ND	"	D
Trichloroethene	"	"	"		20	ND	"	D
Trichlorofluoromethane	"	"	"		20	ND	"	D
1,2,3-Trichloropropane	"	"	"		20	ND	"	D
1,2,4-Trimethylbenzene	"	"	"		20	**1900**	"	D
1,3,5-Trimethylbenzene	"	"	"		20	**2000**	"	D
Vinyl acetate	"	"	"		20	ND	"	D
Vinyl chloride	"	"	"		20	ND	"	D
m,p-Xylene	"	"	"		20	**1200**	"	D
o-Xylene	"	"	"		20	**740**	"	D
Surrogate: DBFM	"	"	"	*80-120*		*96*	*%*	*D*
Surrogate: Toluene-d8	"	"	"	*81-120*		*100*	"	*D*
Surrogate: 4-BFB	"	"	"	*74-120*		*94*	"	*D*

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
No. Tank - NW			8090291-07				Soil	
Acetone	10V8023	10/1/98	10/1/98		25000	ND	ug/kg	D
Benzene	"	"	"		2000	ND	"	D
Bromobenzene	"	"	"		2000	ND	"	D
Bromochloromethane	"	"	"		2000	ND	"	D
Bromodichloromethane	"	"	"		2000	ND	"	D
Bromoform	"	"	"		2000	ND	"	D
Bromomethane	"	"	"		2000	ND	"	D
2-Butanone	"	"	"		10000	ND	"	D
n-Butylbenzene	"	"	"		2000	ND	"	D
sec-Butylbenzene	"	"	"		2000	ND	"	D
tert-Butylbenzene	"	"	"		2000	ND	"	D
Carbon disulfide	"	"	"		2000	ND	"	D
Carbon tetrachloride	"	"	"		2000	ND	"	D
Chlorobenzene	"	"	"		2000	ND	"	D
Chloroethane	"	"	"		2000	ND	"	D
Chloroform	"	"	"		2000	ND	"	D
Chloromethane	"	"	"		2000	ND	"	D
2-Chlorotoluene	"	"	"		2000	ND	"	D
4-Chlorotoluene	"	"	"		2000	ND	"	D
Dibromochloromethane	"	"	"		2000	ND	"	D
1,2-Dibromo-3-chloropropane	"	"	"		2000	ND	"	D
1,2-Dibromoethane	"	"	"		2000	ND	"	D
Dibromomethane	"	"	"		2000	ND	"	D
1,2-Dichlorobenzene	"	"	"		2000	ND	"	D
1,3-Dichlorobenzene	"	"	"		2000	ND	"	D
1,4-Dichlorobenzene	"	"	"		2000	ND	"	D
Dichlorodifluoromethane	"	"	"		2000	ND	"	D
1,1-Dichloroethane	"	"	"		2000	ND	"	D
1,2-Dichloroethane	"	"	"		2000	ND	"	D
1,1-Dichloroethene	"	"	"		2000	ND	"	D
cis-1,2-Dichloroethene	"	"	"		2000	ND	"	D
trans-1,2-Dichloroethene	"	"	"		2000	ND	"	D
1,2-Dichloropropane	"	"	"		2000	ND	"	D
1,3-Dichloropropane	"	"	"		2000	ND	"	D
2,2-Dichloropropane	"	"	"		2000	ND	"	D
1,1-Dichloropropene	"	"	"		2000	ND	"	D
cis-1,3-Dichloropropene	"	"	"		2000	ND	"	D
trans-1,3-Dichloropropene	"	"	"		2000	ND	"	D
Ethylbenzene	"	"	"		2000	**8100**	"	D
Hexachlorobutadiene	"	"	"		2000	ND	"	D
2-Hexanone	"	"	"		10000	ND	"	D

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
No. Tank - NW (continued)			8090291-07				Soil	
Isopropylbenzene	10V8023	10/1/98	10/1/98		2000	**6300**	ug/kg	D
p-Isopropyltoluene	"	"	"		2000	ND	"	D
Methylene chloride	"	"	"		50000	ND	"	D
Methyl tert-butyl ether	"	"	"		2000	ND	"	D
4-Methyl-2-pentanone	"	"	"		10000	ND	"	D
Naphthalene	"	"	"		2000	**62000**	"	D
n-Propylbenzene	"	"	"		2000	**29000**	"	D
Styrene	"	"	"		2000	ND	"	D
1,1,1,2-Tetrachloroethane	"	"	"		2000	ND	"	D
1,1,2,2-Tetrachloroethane	"	"	"		2000	ND	"	D
Tetrachloroethene	"	"	"		2000	ND	"	D
Toluene	"	"	"		2000	**13000**	"	D
1,2,3-Trichlorobenzene	"	"	"		2000	ND	"	D
1,2,4-Trichlorobenzene	"	"	"		2000	ND	"	D
1,1,1-Trichloroethane	"	"	"		2000	ND	"	D
1,1,2-Trichloroethane	"	"	"		2000	ND	"	D
Trichloroethene	"	"	"		2000	ND	"	D
Trichlorofluoromethane	"	"	"		2000	ND	"	D
1,2,3-Trichloropropane	"	"	"		2000	ND	"	D
1,2,4-Trimethylbenzene	"	"	"		2000	**130000**	"	D
1,3,5-Trimethylbenzene	"	"	"		2000	**120000**	"	D
Vinyl acetate	"	"	"		2000	ND	"	D
Vinyl chloride	"	"	"		2000	ND	"	D
m,p-Xylene	"	"	"		2000	**24000**	"	D
o-Xylene	"	"	"		2000	**22000**	"	D
Surrogate: DBFM	"	"	"	*80-120*		*98*	*%*	*D*
Surrogate: Toluene-d8	"	"	"	*81-120*		*100*	"	*D*
Surrogate: 4-BFB	"	"	"	*74-120*		*98*	"	*D*

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sump			8090291-11				Soil	
Acetone	10V8023	10/1/98	10/1/98		13000	ND	ug/kg	D
Benzene	"	"	"		1000	ND	"	D
Bromobenzene	"	"	"		1000	ND	"	D
Bromochloromethane	"	"	"		1000	ND	"	D
Bromodichloromethane	"	"	"		1000	ND	"	D
Bromoform	"	"	"		1000	ND	"	D
Bromomethane	"	"	"		1000	ND	"	D
2-Butanone	"	"	"		5000	ND	"	D
n-Butylbenzene	"	"	"		1000	ND	"	D
sec-Butylbenzene	"	"	"		1000	ND	"	D
tert-Butylbenzene	"	"	"		1000	ND	"	D
Carbon disulfide	"	"	"		1000	ND	"	D
Carbon tetrachloride	"	"	"		1000	ND	"	D
Chlorobenzene	"	"	"		1000	ND	"	D
Chloroethane	"	"	"		1000	ND	"	D
Chloroform	"	"	"		1000	ND	"	D
Chloromethane	"	"	"		1000	ND	"	D
2-Chlorotoluene	"	"	"		1000	ND	"	D
4-Chlorotoluene	"	"	"		1000	ND	"	D
Dibromochloromethane	"	"	"		1000	ND	"	D
1,2-Dibromo-3-chloropropane	"	"	"		1000	ND	"	D
1,2-Dibromoethane	"	"	"		1000	ND	"	D
Dibromomethane	"	"	"		1000	ND	"	D
1,2-Dichlorobenzene	"	"	"		1000	ND	"	D
1,3-Dichlorobenzene	"	"	"		1000	ND	"	D
1,4-Dichlorobenzene	"	"	"		1000	ND	"	D
Dichlorodifluoromethane	"	"	"		1000	ND	"	D
1,1-Dichloroethane	"	"	"		1000	ND	"	D
1,2-Dichloroethane	"	"	"		1000	ND	"	D
1,1-Dichloroethene	"	"	"		1000	ND	"	D
cis-1,2-Dichloroethene	"	"	"		1000	ND	"	D
trans-1,2-Dichloroethene	"	"	"		1000	ND	"	D
1,2-Dichloropropane	"	"	"		1000	ND	"	D
1,3-Dichloropropane	"	"	"		1000	ND	"	D
2,2-Dichloropropane	"	"	"		1000	ND	"	D
1,1-Dichloropropene	"	"	"		1000	ND	"	D
cis-1,3-Dichloropropene	"	"	"		1000	ND	"	D
trans-1,3-Dichloropropene	"	"	"		1000	ND	"	D
Ethylbenzene	"	"	"		1000	ND	"	D
Hexachlorobutadiene	"	"	"		1000	ND	"	D
2-Hexanone	"	"	"		5000	ND	"	D

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Sump (continued)			8090291-11				Soil	
Isopropylbenzene	10V8023	10/1/98	10/1/98		1000	ND	ug/kg	D
p-Isopropyltoluene	"	"	"		1000	ND	"	D
Methylene chloride	"	"	"		25000	ND	"	D
Methyl tert-butyl ether	"	"	"		1000	ND	"	D
4-Methyl-2-pentanone	"	"	"		5000	ND	"	D
Naphthalene	"	"	"		1000	**3400**	"	D
n-Propylbenzene	"	"	"		1000	ND	"	D
Styrene	"	"	"		1000	ND	"	D
1,1,1,2-Tetrachloroethane	"	"	"		1000	ND	"	D
1,1,2,2-Tetrachloroethane	"	"	"		1000	ND	"	D
Tetrachloroethene	"	"	"		1000	ND	"	D
Toluene	"	"	"		1000	**2500**	"	D
1,2,3-Trichlorobenzene	"	"	"		1000	ND	"	D
1,2,4-Trichlorobenzene	"	"	"		1000	ND	"	D
1,1,1-Trichloroethane	"	"	"		1000	ND	"	D
1,1,2-Trichloroethane	"	"	"		1000	ND	"	D
Trichloroethene	"	"	"		1000	ND	"	D
Trichlorofluoromethane	"	"	"		1000	ND	"	D
1,2,3-Trichloropropane	"	"	"		1000	ND	"	D
1,2,4-Trimethylbenzene	"	"	"		1000	**1100**	"	D
1,3,5-Trimethylbenzene	"	"	"		1000	**1100**	"	D
Vinyl acetate	"	"	"		1000	ND	"	D
Vinyl chloride	"	"	"		1000	ND	"	D
m,p-Xylene	"	"	"		1000	ND	"	D
o-Xylene	"	"	"		1000	ND	"	D
Surrogate: DBFM	"	"	"	*80-120*		*100*	*%*	*D*
Surrogate: Toluene-d8	"	"	"	*81-120*		*100*	"	*D*
Surrogate: 4-BFB	"	"	"	*74-120*		*96*	"	*D*

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Pit Water			8090291-19				Water	
Acetone	09V8447	9/30/98	9/30/98		100	ND	ug/l	D
Benzene	"	"	"		20	ND	"	D
Bromobenzene	"	"	"		20	ND	"	D
Bromochloromethane	"	"	"		20	ND	"	D
Bromodichloromethane	"	"	"		20	ND	"	D
Bromoform	"	"	"		20	ND	"	D
Bromomethane	"	"	"		20	ND	"	D
2-Butanone	"	"	"		100	ND	"	D
n-Butylbenzene	"	"	"		20	ND	"	D
sec-Butylbenzene	"	"	"		20	ND	"	D
tert-Butylbenzene	"	"	"		20	ND	"	D
Carbon disulfide	"	"	"		20	ND	"	D
Carbon tetrachloride	"	"	"		20	ND	"	D
Chlorobenzene	"	"	"		20	ND	"	D
Chloroethane	"	"	"		20	ND	"	D
Chloroform	"	"	"		20	ND	"	D
Chloromethane	"	"	"		20	ND	"	D
2-Chlorotoluene	"	"	"		20	ND	"	D
4-Chlorotoluene	"	"	"		20	ND	"	D
Dibromochloromethane	"	"	"		20	ND	"	D
1,2-Dibromo-3-chloropropane	"	"	"		20	ND	"	D
1,2-Dibromoethane	"	"	"		20	ND	"	D
Dibromomethane	"	"	"		20	ND	"	D
1,2-Dichlorobenzene	"	"	"		20	ND	"	D
1,3-Dichlorobenzene	"	"	"		20	ND	"	D
1,4-Dichlorobenzene	"	"	"		20	ND	"	D
Dichlorodifluoromethane	"	"	"		20	ND	"	D
1,1-Dichloroethane	"	"	"		20	ND	"	D
1,2-Dichloroethane	"	"	"		20	ND	"	D
1,1-Dichloroethene	"	"	"		20	ND	"	D
cis-1,2-Dichloroethene	"	"	"		20	ND	"	D
trans-1,2-Dichloroethene	"	"	"		20	ND	"	D
1,2-Dichloropropane	"	"	"		20	ND	"	D
1,3-Dichloropropane	"	"	"		20	ND	"	D
2,2-Dichloropropane	"	"	"		20	ND	"	D
1,1-Dichloropropene	"	"	"		20	ND	"	D
cis-1,3-Dichloropropene	"	"	"		20	ND	"	D
trans-1,3-Dichloropropene	"	"	"		20	ND	"	D
Ethylbenzene	"	"	"		20	**390**	"	D
Hexachlorobutadiene	"	"	"		20	ND	"	D
2-Hexanone	"	"	"		100	ND	"	D

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Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Pit Water (continued)			**8090291-19**				**Water**	
Isopropylbenzene	09V8447	9/30/98	9/30/98		20	**110**	ug/l	D
p-Isopropyltoluene	"	"	"		20	ND	"	D
Methylene chloride	"	"	"		100	ND	"	D
Methyl tert-butyl ether	"	"	"		20	ND	"	D
4-Methyl-2-pentanone	"	"	"		100	ND	"	D
Naphthalene	"	"	"		20	**1800**	"	D
n-Propylbenzene	"	"	"		20	**440**	"	D
Styrene	"	"	"		20	ND	"	D
1,1,1,2-Tetrachloroethane	"	"	"		20	ND	"	D
1,1,2,2-Tetrachloroethane	"	"	"		20	ND	"	D
Tetrachloroethene	"	"	"		20	ND	"	D
Toluene	"	"	"		20	**1300**	"	D
1,2,3-Trichlorobenzene	"	"	"		20	ND	"	D
1,2,4-Trichlorobenzene	"	"	"		20	ND	"	D
1,1,1-Trichloroethane	"	"	"		20	ND	"	D
1,1,2-Trichloroethane	"	"	"		20	ND	"	D
Trichloroethene	"	"	"		20	ND	"	D
Trichlorofluoromethane	"	"	"		20	ND	"	D
1,2,3-Trichloropropane	"	"	"		20	ND	"	D
1,2,4-Trimethylbenzene	"	"	"		20	**2300**	"	D
1,3,5-Trimethylbenzene	"	"	"		20	**2100**	"	D
Vinyl acetate	"	"	"		20	ND	"	D
Vinyl chloride	"	"	"		20	ND	"	D
m,p-Xylene	"	"	"		20	**1000**	"	D
o-Xylene	"	"	"		20	**870**	"	D
Surrogate: DBFM	"	"	"	*86-120*		*100*	*%*	
Surrogate: Toluene-d8	"	"	"	*88-110*		*100*	"	
Surrogate: 4-BFB	"	"	"	*86-120*		*94*	"	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
So. Tank - WW			8090291-04				Soil	
Acenaphthene	10V8024	10/1/98	10/1/98		33	ND	ug/kg	
Acenaphthylene	"	"	"		33	ND	"	
Aniline	"	"	"		33	ND	"	
Anthracene	"	"	"		33	ND	"	
Benzoic Acid	"	"	"		170	ND	"	
Benzo (a) anthracene	"	"	"		33	ND	"	
Benzo (b) fluoranthene	"	"	"		33	ND	"	
Benzo (k) fluoranthene	"	"	"		33	ND	"	
Benzo (ghi) perylene	"	"	"		33	ND	"	
Benzo (a) pyrene	"	"	"		33	ND	"	
Benzyl alcohol	"	"	"		33	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		33	ND	"	
Bis(2-chloroethyl)ether	"	"	"		33	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		33	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		170	ND	"	
4-Bromophenyl phenyl ether	"	"	"		33	ND	"	
Butyl benzyl phthalate	"	"	"		33	ND	"	
Carbazole	"	"	"		33	ND	"	
4-Chloroaniline	"	"	"		33	ND	"	
2-Chloronaphthalene	"	"	"		33	ND	"	
4-Chloro-3-methylphenol	"	"	"		33	ND	"	
2-Chlorophenol	"	"	"		33	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		33	ND	"	
Chrysene	"	"	"		33	ND	"	
Dibenz (a,h) anthracene	"	"	"		33	ND	"	
Dibenzofuran	"	"	"		33	ND	"	
Di-n-butyl phthalate	"	"	"		170	ND	"	
1,3-Dichlorobenzene	"	"	"		33	ND	"	
1,4-Dichlorobenzene	"	"	"		33	ND	"	
1,2-Dichlorobenzene	"	"	"		33	ND	"	
3,3'-Dichlorobenzidine	"	"	"		170	ND	"	
2,4-Dichlorophenol	"	"	"		33	ND	"	
Diethyl phthalate	"	"	"		33	ND	"	
2,4-Dimethylphenol	"	"	"		33	ND	"	
Dimethyl phthalate	"	"	"		33	ND	"	
4,6-Dinitro-2-methylphenol	"	"	"		170	ND	"	
2,4-Dinitrophenol	"	"	"		170	ND	"	
2,4-Dinitrotoluene	"	"	"		33	ND	"	
2,6-Dinitrotoluene	"	"	"		33	ND	"	
Di-n-octyl phthalate	"	"	"		33	ND	"	
Fluoranthene	"	"	"		33	ND	"	

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
So. Tank - WW (continued)			**8090291-04**				**Soil**	
Fluorene	10V8024	10/1/98	10/1/98		33	ND	ug/kg	
Hexachlorobenzene	"	"	"		33	ND	"	
Hexachlorobutadiene	"	"	"		33	ND	"	
Hexachlorocyclopentadiene	"	"	"		33	ND	"	
Hexachloroethane	"	"	"		33	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		33	ND	"	
Isophorone	"	"	"		33	ND	"	
2-Methylnaphthalene	"	"	"		33	**300**	"	
2-Methylphenol	"	"	"		33	ND	"	
3 & 4-Methylphenol	"	"	"		33	ND	"	
Naphthalene	"	"	"		33	**1000**	"	
2-Nitroaniline	"	"	"		170	ND	"	
3-Nitroaniline	"	"	"		170	ND	"	
4-Nitroaniline	"	"	"		170	ND	"	
Nitrobenzene	"	"	"		33	ND	"	
2-Nitrophenol	"	"	"		33	ND	"	
4-Nitrophenol	"	"	"		170	ND	"	
N-Nitrosodiphenylamine	"	"	"		33	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		33	ND	"	
Pentachlorophenol	"	"	"		170	ND	"	
Phenanthrene	"	"	"		33	ND	"	
Phenol	"	"	"		33	ND	"	
Pyrene	"	"	"		33	ND	"	
1,2,4-Trichlorobenzene	"	"	"		33	ND	"	
2,4,5-Trichlorophenol	"	"	"		170	ND	"	
2,4,6-Trichlorophenol	"	"	"		33	ND	"	
Surrogate: 2-FP	"	"	"	*25-120*		*36*	*%*	
Surrogate: Phenol-d6	"	"	"	*24-110*		*42*	"	
Surrogate: 2,4,6-TBP	"	"	"	*19-120*		*45*	"	
Surrogate: Nitrobenzene-d5	"	"	"	*23-120*		*45*	"	
Surrogate: 2-FBP	"	"	"	*30-120*		*59*	"	
Surrogate: p-Terphenyl-d14	"	"	"	*18-140*		*71*	"	

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
No. Tank - NW			8090291-07				Soil	
Acenaphthene	10V8024	10/1/98	10/1/98		33	ND	ug/kg	
Acenaphthylene	"	"	"		33	ND	"	
Aniline	"	"	"		33	ND	"	
Anthracene	"	"	"		33	ND	"	
Benzoic Acid	"	"	"		170	ND	"	
Benzo (a) anthracene	"	"	"		33	ND	"	
Benzo (b) fluoranthene	"	"	"		33	ND	"	
Benzo (k) fluoranthene	"	"	"		33	ND	"	
Benzo (ghi) perylene	"	"	"		33	ND	"	
Benzo (a) pyrene	"	"	"		33	ND	"	
Benzyl alcohol	"	"	"		33	ND	"	
Bis(2-chloroethoxy)methane	"	"	"		33	ND	"	
Bis(2-chloroethyl)ether	"	"	"		33	ND	"	
Bis(2-chloroisopropyl)ether	"	"	"		33	ND	"	
Bis(2-ethylhexyl)phthalate	"	"	"		170	**220**	"	
4-Bromophenyl phenyl ether	"	"	"		33	ND	"	
Butyl benzyl phthalate	"	"	"		33	ND	"	
Carbazole	"	"	"		33	ND	"	
4-Chloroaniline	"	"	"		33	ND	"	
2-Chloronaphthalene	"	"	"		33	ND	"	
4-Chloro-3-methylphenol	"	"	"		33	ND	"	
2-Chlorophenol	"	"	"		33	ND	"	
4-Chlorophenyl phenyl ether	"	"	"		33	ND	"	
Chrysene	"	"	"		33	ND	"	
Dibenz (a,h) anthracene	"	"	"		33	ND	"	
Dibenzofuran	"	"	"		33	ND	"	
Di-n-butyl phthalate	"	"	"		170	ND	"	
1,3-Dichlorobenzene	"	"	"		33	ND	"	
1,4-Dichlorobenzene	"	"	"		33	ND	"	
1,2-Dichlorobenzene	"	"	"		33	ND	"	
3,3'-Dichlorobenzidine	"	"	"		170	ND	"	
2,4-Dichlorophenol	"	"	"		33	ND	"	
Diethyl phthalate	"	"	"		33	ND	"	
2,4-Dimethylphenol	"	"	"		33	ND	"	
Dimethyl phthalate	"	"	"		33	**1400**	"	
4,6-Dinitro-2-methylphenol	"	"	"		170	ND	"	
2,4-Dinitrophenol	"	"	"		170	ND	"	
2,4-Dinitrotoluene	"	"	"		33	ND	"	
2,6-Dinitrotoluene	"	"	"		33	ND	"	
Di-n-octyl phthalate	"	"	"		33	ND	"	
Fluoranthene	"	"	"		33	ND	"	

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
No. Tank - NW (continued)			**8090291-07**				**Soil**	
Fluorene	10V8024	10/1/98	10/1/98		33	**530**	ug/kg	
Hexachlorobenzene	"	"	"		33	ND	"	
Hexachlorobutadiene	"	"	"		33	ND	"	
Hexachlorocyclopentadiene	"	"	"		33	ND	"	
Hexachloroethane	"	"	"		33	ND	"	
Indeno (1,2,3-cd) pyrene	"	"	"		33	ND	"	
Isophorone	"	"	"		33	ND	"	
2-Methylnaphthalene	"	"	"		33	**17000**	"	
2-Methylphenol	"	"	"		33	ND	"	
3 & 4-Methylphenol	"	"	"		33	ND	"	
Naphthalene	"	"	"		33	**32000**	"	
2-Nitroaniline	"	"	"		170	ND	"	
3-Nitroaniline	"	"	"		170	ND	"	
4-Nitroaniline	"	"	"		170	ND	"	
Nitrobenzene	"	"	"		33	ND	"	
2-Nitrophenol	"	"	"		33	ND	"	
4-Nitrophenol	"	"	"		170	ND	"	
N-Nitrosodiphenylamine	"	"	"		33	ND	"	
N-Nitrosodi-n-propylamine	"	"	"		33	ND	"	
Pentachlorophenol	"	"	"		170	ND	"	
Phenanthrene	"	"	"		33	**790**	"	
Phenol	"	"	"		33	ND	"	
Pyrene	"	"	"		33	ND	"	
1,2,4-Trichlorobenzene	"	"	"		33	ND	"	
2,4,5-Trichlorophenol	"	"	"		170	ND	"	
2,4,6-Trichlorophenol	"	"	"		33	ND	"	
Surrogate: 2-FP	"	"	"	*25-120*		*64*	*%*	
Surrogate: Phenol-d6	"	"	"	*24-110*		*45*	"	
Surrogate: 2,4,6-TBP	"	"	"	*19-120*		*64*	"	
Surrogate: Nitrobenzene-d5	"	"	"	*23-120*		*57*	"	
Surrogate: 2-FBP	"	"	"	*30-120*		*65*	"	
Surrogate: p-Terphenyl-d14	"	"	"	*18-140*		*88*	"	

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Delta Environmental		Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230		Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006		Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Total Metals by EPA 200 Series Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Pit Water			**8090291-19**				**Water**	
Arsenic	10V8214	10/6/98	10/14/98	EPA 206.1	0.0050	ND	mg/l	
Cadmium	10V8209	"	"	EPA 213.2	0.010	ND	"	D
Lead	10V8210	"	"	EPA 239.2	0.0050	ND	"	
Selenium	10V8171	9/29/98	10/11/98	EPA 270.2	0.050	ND	"	7,D

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Total Metals by EPA 6000/7000 Series Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Sump			8090291-11				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	
Barium	"	"	"	EPA 6010B	2.5	**930**	"	8
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	ND	"	
Lead	"	"	"	EPA 6010B	5.0	**6.0**	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	40	**1100**	"	D
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	**0.31**	"	
Cont.-Pit			8090291-12				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	
Barium	"	"	"	EPA 6010B	2.5	**22**	"	
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	**3.5**	"	
Lead	"	"	"	EPA 6010B	5.0	ND	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	2.0	**28**	"	
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	ND	"	
Cont.- 1			8090291-13				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	
Barium	"	"	"	EPA 6010B	2.5	**90**	"	
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	**7.3**	"	
Lead	"	"	"	EPA 6010B	5.0	ND	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	2.0	**5.3**	"	
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	ND	"	
Cont.- 2			8090291-14				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	
Barium	"	"	"	EPA 6010B	2.5	**43**	"	
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	**3.5**	"	
Lead	"	"	"	EPA 6010B	5.0	ND	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	2.0	**5.8**	"	
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	**0.066**	"	
Cont.- 3			8090291-15				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Total Metals by EPA 6000/7000 Series Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Cont.- 3 (continued)			8090291-15				Soil	
Barium	09V8442	9/29/98	9/30/98	EPA 6010B	2.5	83	mg/kg	
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	9.0	"	
Lead	"	"	"	EPA 6010B	5.0	ND	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	2.0	5.5	"	
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	0.043	"	
Cont.- 4			8090291-16				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	
Barium	"	"	"	EPA 6010B	2.5	85	"	
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	8.3	"	
Lead	"	"	"	EPA 6010B	5.0	ND	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	2.0	4.8	"	
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	ND	"	
Cont.- 5			8090291-17				Soil	
Arsenic	09V8442	9/29/98	9/30/98	EPA 6010B	5.0	ND	mg/kg	
Barium	"	"	"	EPA 6010B	2.5	90	"	
Cadmium	"	"	"	EPA 6010B	0.75	ND	"	
Chromium	"	"	"	EPA 6010B	0.75	7.8	"	
Lead	"	"	"	EPA 6010B	5.0	ND	"	
Selenium	"	"	"	EPA 6010B	5.0	ND	"	
Silver	10V8084	"	10/6/98	EPA 6010B	2.0	6.0	"	
Mercury	10V8104	10/1/98	10/1/98	EPA 7471A	0.040	ND	"	
Tank			8090291-18				Water	
Arsenic	10V8095	9/29/98	10/7/98	EPA 6010B	0.20	ND	mg/l	
Barium	"	"	"	EPA 6010B	0.10	0.17	"	
Cadmium	"	"	"	EPA 6010B	0.030	0.15	"	
Chromium	"	"	"	EPA 6010B	0.030	0.031	"	
Lead	"	"	"	EPA 6010B	0.10	0.13	"	
Selenium	"	"	"	EPA 6010B	0.20	ND	"	
Silver	"	"	"	EPA 6010B	0.030	ND	"	
Mercury	10V8105	10/1/98	10/1/98	EPA 7470A	0.00200	ND	"	
Pit Water			8090291-19				Water	
Barium	10V8095	9/29/98	10/7/98	EPA 6010B	0.10	ND	mg/l	
Chromium	"	"	"	EPA 6010B	0.030	ND	"	

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Total Metals by EPA 6000/7000 Series Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Pit Water (continued)			**8090291-19**				**Water**	
Silver	10V8095	9/29/98	10/7/98	EPA 6010B	0.030	ND	mg/l	
Mercury	10V8105	10/1/98	10/1/98	EPA 7470A	0.00200	ND	"	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Conventional Chemistry Parameters by APHA/EPA Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
So. Tank - SW			8090291-01				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	5.0	55	mg/kg	
So. Tank - EW			8090291-02				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	5.0	510	mg/kg	
So. Tank - NW			8090291-03				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	5.0	ND	mg/kg	
So. Tank - WW			8090291-04				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	5.0	1400	mg/kg	
No. Tank - SW			8090291-05				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	5.0	95	mg/kg	
No. Tank - EW			8090291-06				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	50	1800	mg/kg	D
No. Tank - NW			8090291-07				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	50	2600	mg/kg	D
No. Tank - WW			8090291-08				Soil	
Petroleum Oil Hydrocarbons	09V8446	9/30/98	9/30/98	EPA 418.1	5.0	190	mg/kg	
Stockpile			8090291-10				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		6.12	pH units	
Reactivity	09V8382	"	"	N/A		ND	N/A	
Sump			8090291-11				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		2.15	pH units	
Cont.-Pit			8090291-12				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		6.79	pH units	
Cont.- 1			8090291-13				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		7.68	pH units	
Cont.- 2			8090291-14				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		7.67	pH units	
Cont.- 3			8090291-15				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		7.47	pH units	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Conventional Chemistry Parameters by APHA/EPA Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Cont.- 4			8090291-16				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		**7.86**	pH units	
Cont.- 5			8090291-17				Soil	
pH	09V8389	9/28/98	9/28/98	EPA 9045B		**7.89**	pH units	
Tank			8090291-18				Water	
Petroleum Oil Hydrocarbons	09V8416	9/29/98	9/29/98	EPA 418.1	10	**110**	mg/l	D
Pit Water			8090291-19				Water	
Total Dissolved Solids	10V8117	10/1/98	10/1/98	EPA 160.1	10	**4600**	mg/l	

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Physical Parameters by APHA/ASTM/EPA Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Stockpile			8090291-10				Soil	
Flashpoint	09V8451	9/30/98	9/30/98	EPA 1010	70.0	ND	°C	
Reactive Cyanide	09V8425	9/29/98	9/29/98	EPA 9010B	250	ND	mg/kg	
Reactive Sulfide	09V8455	9/30/98	9/30/98	EPA 9030B	1.0	ND	"	

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

TCLP Volatile Organic Compounds by EPA Method 1311/8260
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Stockpile			**8090291-10**				**Soil**	
Benzene	10V8021	10/1/98	10/1/98		0.100	ND	mg/l	D
2-Butanone	"	"	"		0.500	ND	"	D
Carbon tetrachloride	"	"	"		0.100	ND	"	D
Chlorobenzene	"	"	"		0.100	ND	"	D
Chloroform	"	"	"		0.100	ND	"	D
1,2-Dichloroethane	"	"	"		0.100	ND	"	D
1,1-Dichloroethene	"	"	"		0.100	ND	"	D
Tetrachloroethene	"	"	"		0.100	ND	"	D
Trichloroethene	"	"	"		0.100	ND	"	D
Vinyl chloride	"	"	"		0.100	ND	"	D
Surrogate: DBFM	"	"	"	*86.0-118*		*102*	*%*	*D*
Surrogate: Toluene-d8	"	"	"	*88.0-110*		*101*	"	*D*
Surrogate: 4-BFB	"	"	"	*86.0-115*		*98.0*	"	*D*

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

TCLP Semivolatiles by EPA Method 1311/8270
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
Stockpile			**8090291-10**				**Soil**	
o-Cresol	10V8040	10/1/98	10/2/98		0.00800	ND	mg/l	
m,p-Cresols	"	"	"		0.00800	ND	"	
1,4-Dichlorobenzene	"	"	"		0.00800	ND	"	
2,4-Dinitrotoluene	"	"	"		0.00800	ND	"	
Hexachlorobenzene	"	"	"		0.00800	ND	"	
Hexachlorobutadiene	"	"	"		0.00800	ND	"	
Hexachloroethane	"	"	"		0.00800	ND	"	
Nitrobenzene	"	"	"		0.00800	ND	"	
Pentachlorophenol	"	"	"		0.0400	ND	"	
Pyridine	"	"	"		0.0400	ND	"	
2,4,5-Trichlorophenol	"	"	"		0.0400	ND	"	
2,4,6-Trichlorophenol	"	"	"		0.00800	ND	"	
Surrogate: 2-FP	"	"	"	*43.0-116*		*51.6*	*%*	
Surrogate: Phenol-d6	"	"	"	*10.0-94.0*		*45.0*	"	
Surrogate: 2,4,6-TBP	"	"	"	*10.0-123*		*69.0*	"	
Surrogate: Nitrobenzene-d5	"	"	"	*35.0-114*		*56.5*	"	
Surrogate: 2-FBP	"	"	"	*43.0-116*		*62.4*	"	
Surrogate: p-Terphenyl-d14	"	"	"	*33.0-141*		*112*	"	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

TCLP Metals by EPA 1311/6000/7000 Series Methods
Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
Stockpile			**8090291-10**				**Soil**	
Arsenic	10V8096	10/2/98	10/7/98	EPA 6010B	0.200	ND	mg/l	
Barium	"	"	"	EPA 6010B	0.230	**0.450**	"	
Cadmium	"	"	"	EPA 6010B	0.0300	ND	"	
Chromium	"	"	"	EPA 6010B	0.0300	ND	"	
Lead	"	"	"	EPA 6010B	0.100	ND	"	
Selenium	"	"	"	EPA 6010B	0.200	ND	"	
Silver	"	"	"	EPA 6010B	0.0300	ND	"	
Mercury	10V8103	10/5/98	10/6/98	EPA 7470A	0.000200	ND	"	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Diesel Hydrocarbons (C12-C24) by EPA Method 8015 (modified)/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 09V8439	**Date Prepared: 9/28/98**					**Extraction Method: EPA 3510/600 Series**				
Blank	**09V8439-BLK1**									
Diesel Range Hydrocarbons	9/28/98			**ND**	mg/l	**0.20**				
Surrogate: o-Terphenyl	"	*0.10*		*0.070*	"	*49-170*	*70*			
LCS	**09V8439-BS1**									
Diesel Range Hydrocarbons	9/28/98	1.0		0.73	mg/l	60-120	73			
Surrogate: o-Terphenyl	"	*0.10*		*0.11*	"	*49-170*	*110*			
LCS Dup	**09V8439-BSD1**									
Diesel Range Hydrocarbons	9/28/98	1.0		1.1	mg/l	60-120	110	30	40	
Surrogate: o-Terphenyl	"	*0.10*		*0.11*	"	*49-170*	*110*			
Matrix Spike	**09V8439-MS1**		**8090259-03**							
Diesel Range Hydrocarbons	9/28/98	2.0	ND	1.2	mg/l	60-120	**60**			
Surrogate: o-Terphenyl	"	*0.20*		*0.17*	"	*49-170*	*85*			
Matrix Spike Dup	**09V8439-MSD1**		**8090259-03**							
Diesel Range Hydrocarbons	9/28/98	2.0	ND	1.4	mg/l	60-120	**70**	30	**15**	
Surrogate: o-Terphenyl	"	*0.20*		*0.18*	"	*49-170*	*90*			
Batch: 09V8445	**Date Prepared: 9/28/98**					**Extraction Method: EPA 3550**				
Blank	**09V8445-BLK1**									
Diesel Range Hydrocarbons	9/29/98			**ND**	mg/kg	**1.0**				
Surrogate: o-Terphenyl	"	*1.7*		*1.7*	"	*49-170*	*100*			
LCS	**09V8445-BS1**									
Diesel Range Hydrocarbons	9/29/98	17		11	mg/kg	60-120	65			
Surrogate: o-Terphenyl	"	*1.7*		*1.4*	"	*49-170*	*82*			
LCS Dup	**09V8445-BSD1**									
Diesel Range Hydrocarbons	9/29/98	17		11	mg/kg	60-120	65	30	0	
Surrogate: o-Terphenyl	"	*1.7*		*1.5*	"	*49-170*	*88*			
Matrix Spike	**09V8445-MS1**		**8090291-16**							
Diesel Range Hydrocarbons	9/29/98	17	5.4	15	mg/kg	60-120	**56**			
Surrogate: o-Terphenyl	"	*1.7*		*1.7*	"	*49-170*	*100*			
Matrix Spike Dup	**09V8445-MSD1**		**8090291-16**							
Diesel Range Hydrocarbons	9/29/98	17	5.4	18	mg/kg	60-120	**74**	30	**28**	
Surrogate: o-Terphenyl	"	*1.7*		*1.7*	"	*49-170*	*100*			

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Delta Environmental		Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230		Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006		Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 09V8447	**Date Prepared: 9/30/98**					**Extraction Method: EPA 5030**				
Blank	**09V8447-BLK1**									
Acetone	9/30/98			ND	ug/l	10				
Benzene	"			ND	"	2.0				
Bromobenzene	"			ND	"	2.0				
Bromochloromethane	"			ND	"	2.0				
Bromodichloromethane	"			ND	"	2.0				
Bromoform	"			ND	"	2.0				
Bromomethane	"			ND	"	2.0				
2-Butanone	"			ND	"	10				
n-Butylbenzene	"			ND	"	2.0				
sec-Butylbenzene	"			ND	"	2.0				
tert-Butylbenzene	"			ND	"	2.0				
Carbon disulfide	"			ND	"	2.0				
Carbon tetrachloride	"			ND	"	2.0				
Chlorobenzene	"			ND	"	2.0				
Chloroethane	"			ND	"	2.0				
Chloroform	"			ND	"	2.0				
Chloromethane	"			ND	"	2.0				
2-Chlorotoluene	"			ND	"	2.0				
4-Chlorotoluene	"			ND	"	2.0				
Dibromochloromethane	"			ND	"	2.0				
1,2-Dibromo-3-chloropropane	"			ND	"	2.0				
1,2-Dibromoethane	"			ND	"	2.0				
Dibromomethane	"			ND	"	2.0				
1,2-Dichlorobenzene	"			ND	"	2.0				
1,3-Dichlorobenzene	"			ND	"	2.0				
1,4-Dichlorobenzene	"			ND	"	2.0				
Dichlorodifluoromethane	"			ND	"	2.0				
1,1-Dichloroethane	"			ND	"	2.0				
1,2-Dichloroethane	"			ND	"	2.0				
1,1-Dichloroethene	"			ND	"	2.0				
cis-1,2-Dichloroethene	"			ND	"	2.0				
trans-1,2-Dichloroethene	"			ND	"	2.0				
1,2-Dichloropropane	"			ND	"	2.0				
1,3-Dichloropropane	"			ND	"	2.0				
2,2-Dichloropropane	"			ND	"	2.0				
1,1-Dichloropropene	"			ND	"	2.0				
cis-1,3-Dichloropropene	"			ND	"	2.0				
trans-1,3-Dichloropropene	"			ND	"	2.0				
Ethylbenzene	"			ND	"	2.0				
Hexachlorobutadiene	"			ND	"	2.0				

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Volatile Organic Compounds by EPA Method 8260/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	**09V8447-BLK1**									
2-Hexanone	9/30/98			**ND**	ug/l	**10**				
Isopropylbenzene	"			**ND**	"	**2.0**				
p-Isopropyltoluene	"			**ND**	"	**2.0**				
Methylene chloride	"			**ND**	"	**10**				
Methyl tert-butyl ether	"			**ND**	"	**2.0**				
4-Methyl-2-pentanone	"			**ND**	"	**10**				
Naphthalene	"			**ND**	"	**2.0**				
n-Propylbenzene	"			**ND**	"	**2.0**				
Styrene	"			**ND**	"	**2.0**				
1,1,1,2-Tetrachloroethane	"			**ND**	"	**2.0**				
1,1,2,2-Tetrachloroethane	"			**ND**	"	**2.0**				
Tetrachloroethene	"			**ND**	"	**2.0**				
Toluene	"			**ND**	"	**2.0**				
1,2,3-Trichlorobenzene	"			**ND**	"	**2.0**				
1,2,4-Trichlorobenzene	"			**ND**	"	**2.0**				
1,1,1-Trichloroethane	"			**ND**	"	**2.0**				
1,1,2-Trichloroethane	"			**ND**	"	**2.0**				
Trichloroethene	"			**ND**	"	**2.0**				
Trichlorofluoromethane	"			**ND**	"	**2.0**				
1,2,3-Trichloropropane	"			**ND**	"	**2.0**				
1,2,4-Trimethylbenzene	"			**ND**	"	**2.0**				
1,3,5-Trimethylbenzene	"			**ND**	"	**2.0**				
Vinyl acetate	"			**ND**	"	**2.0**				
Vinyl chloride	"			**ND**	"	**2.0**				
m,p-Xylene	"			**ND**	"	**2.0**				
o-Xylene	"			**ND**	"	**2.0**				
Surrogate: DBFM	"	*50*		*50*	"	*86-120*	*100*			
Surrogate: Toluene-d8	"	*50*		*50*	"	*88-110*	*100*			
Surrogate: 4-BFB	"	*50*		*50*	"	*86-120*	*100*			
LCS	**09V8447-BS1**									
Benzene	9/30/98	50		54	ug/l	76-130	110			
Chlorobenzene	"	50		59	"	75-130	120			
1,1-Dichloroethene	"	50		46	"	58-150	92			
Toluene	"	50		57	"	76-130	110			
Trichloroethene	"	50		56	"	71-140	110			
Surrogate: DBFM	"	*50*		*50*	"	*86-120*	*100*			
Surrogate: Toluene-d8	"	*50*		*50*	"	*88-110*	*100*			
Surrogate: 4-BFB	"	*50*		*49*	"	*86-120*	*98*			

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Volatile Organic Compounds by EPA Method 8260/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS Dup	**09V8447-BSD1**									
Benzene	9/30/98	50		54	ug/l	76-130	110	21	0	
Chlorobenzene	"	50		60	"	75-130	120	21	0	
1,1-Dichloroethene	"	50		44	"	58-150	88	22	4.4	
Toluene	"	50		58	"	76-130	120	21	8.7	
Trichloroethene	"	50		56	"	71-140	110	24	0	
Surrogate: DBFM	"	*50*		*51*	"	*86-120*	*100*			
Surrogate: Toluene-d8	"	*50*		*50*	"	*88-110*	*100*			
Surrogate: 4-BFB	"	*50*		*49*	"	*86-120*	*98*			
Batch: 10V8023	**Date Prepared: 10/1/98**					**Extraction Method: EPA 5030**				
Blank	**10V8023-BLK1**									
Acetone	10/1/98			**ND**	ug/kg	**25**				
Benzene	"			**ND**	"	**2.0**				
Bromobenzene	"			**ND**	"	**2.0**				
Bromochloromethane	"			**ND**	"	**2.0**				
Bromodichloromethane	"			**ND**	"	**2.0**				
Bromoform	"			**ND**	"	**2.0**				
Bromomethane	"			**ND**	"	**2.0**				
2-Butanone	"			**ND**	"	**10**				
n-Butylbenzene	"			**ND**	"	**2.0**				
sec-Butylbenzene	"			**ND**	"	**2.0**				
tert-Butylbenzene	"			**ND**	"	**2.0**				
Carbon disulfide	"			**ND**	"	**2.0**				
Carbon tetrachloride	"			**ND**	"	**2.0**				
Chlorobenzene	"			**ND**	"	**2.0**				
Chloroethane	"			**ND**	"	**2.0**				
Chloroform	"			**ND**	"	**2.0**				
Chloromethane	"			**ND**	"	**2.0**				
2-Chlorotoluene	"			**ND**	"	**2.0**				
4-Chlorotoluene	"			**ND**	"	**2.0**				
Dibromochloromethane	"			**ND**	"	**2.0**				
1,2-Dibromo-3-chloropropane	"			**ND**	"	**2.0**				
1,2-Dibromoethane	"			**ND**	"	**2.0**				
Dibromomethane	"			**ND**	"	**2.0**				
1,2-Dichlorobenzene	"			**ND**	"	**2.0**				
1,3-Dichlorobenzene	"			**ND**	"	**2.0**				
1,4-Dichlorobenzene	"			**ND**	"	**2.0**				
Dichlorodifluoromethane	"			**ND**	"	**2.0**				
1,1-Dichloroethane	"			**ND**	"	**2.0**				
1,2-Dichloroethane	"			**ND**	"	**2.0**				
1,1-Dichloroethene	"			**ND**	"	**2.0**				

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	**10V8023-BLK1**									
cis-1,2-Dichloroethene	10/1/98			ND	ug/kg	2.0				
trans-1,2-Dichloroethene	"			ND	"	2.0				
1,2-Dichloropropane	"			ND	"	2.0				
1,3-Dichloropropane	"			ND	"	2.0				
2,2-Dichloropropane	"			ND	"	2.0				
1,1-Dichloropropene	"			ND	"	2.0				
cis-1,3-Dichloropropene	"			ND	"	2.0				
trans-1,3-Dichloropropene	"			ND	"	2.0				
Ethylbenzene	"			ND	"	2.0				
Hexachlorobutadiene	"			ND	"	2.0				
2-Hexanone	"			ND	"	10				
Isopropylbenzene	"			ND	"	2.0				
p-Isopropyltoluene	"			ND	"	2.0				
Methylene chloride	"			ND	"	50				
Methyl tert-butyl ether	"			ND	"	2.0				
4-Methyl-2-pentanone	"			ND	"	10				
Naphthalene	"			ND	"	2.0				
n-Propylbenzene	"			ND	"	2.0				
Styrene	"			ND	"	2.0				
1,1,1,2-Tetrachloroethane	"			ND	"	2.0				
1,1,2,2-Tetrachloroethane	"			ND	"	2.0				
Tetrachloroethene	"			ND	"	2.0				
Toluene	"			ND	"	2.0				
1,2,3-Trichlorobenzene	"			ND	"	2.0				
1,2,4-Trichlorobenzene	"			ND	"	2.0				
1,1,1-Trichloroethane	"			ND	"	2.0				
1,1,2-Trichloroethane	"			ND	"	2.0				
Trichloroethene	"			ND	"	2.0				
Trichlorofluoromethane	"			ND	"	2.0				
1,2,3-Trichloropropane	"			ND	"	2.0				
1,2,4-Trimethylbenzene	"			ND	"	2.0				
1,3,5-Trimethylbenzene	"			ND	"	2.0				
Vinyl acetate	"			ND	"	2.0				
Vinyl chloride	"			ND	"	2.0				
m,p-Xylene	"			ND	"	2.0				
o-Xylene	"			ND	"	2.0				
Surrogate: DBFM	"	*50*		*51*	"	*80-120*	*100*			
Surrogate: Toluene-d8	"	*50*		*51*	"	*81-120*	*100*			
Surrogate: 4-BFB	"	*50*		*49*	"	*74-120*	*98*			

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Volatile Organic Compounds by EPA Method 8260/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS	**10V8023-BS1**									
Benzene	10/1/98	50		54	ug/kg	66-140	110			
Chlorobenzene	"	50		60	"	60-130	120			
1,1-Dichloroethene	"	50		41	"	59-170	82			
Toluene	"	50		58	"	59-130	120			
Trichloroethene	"	50		55	"	62-140	110			
Surrogate: DBFM	"	*50*		*51*	"	*80-120*	*100*			
Surrogate: Toluene-d8	"	*50*		*50*	"	*81-120*	*100*			
Surrogate: 4-BFB	"	*50*		*51*	"	*74-120*	*100*			
LCS Dup	**10V8023-BSD1**									
Benzene	10/1/98	50		53	ug/kg	66-140	110	21	0	
Chlorobenzene	"	50		60	"	60-130	120	21	0	
1,1-Dichloroethene	"	50		41	"	59-170	82	22	0	
Toluene	"	50		58	"	59-130	120	21	0	
Trichloroethene	"	50		56	"	62-140	110	24	0	
Surrogate: DBFM	"	*50*		*51*	"	*80-120*	*100*			
Surrogate: Toluene-d8	"	*50*		*50*	"	*81-120*	*100*			
Surrogate: 4-BFB	"	*50*		*50*	"	*74-120*	*100*			

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 10V8024	**Date Prepared: 10/1/98**				**Extraction Method: EPA 3550**					
Blank	**10V8024-BLK1**									
Acenaphthene	10/1/98			ND	ug/kg	33				
Acenaphthylene	"			ND	"	33				
Aniline	"			ND	"	33				
Anthracene	"			ND	"	33				
Benzoic Acid	"			ND	"	170				
Benzo (a) anthracene	"			ND	"	33				
Benzo (b) fluoranthene	"			ND	"	33				
Benzo (k) fluoranthene	"			ND	"	33				
Benzo (ghi) perylene	"			ND	"	33				
Benzo (a) pyrene	"			ND	"	33				
Benzyl alcohol	"			ND	"	33				
Bis(2-chloroethoxy)methane	"			ND	"	33				
Bis(2-chloroethyl)ether	"			ND	"	33				
Bis(2-chloroisopropyl)ether	"			ND	"	33				
Bis(2-ethylhexyl)phthalate	"			ND	"	170				
4-Bromophenyl phenyl ether	"			ND	"	33				
Butyl benzyl phthalate	"			ND	"	33				
Carbazole	"			ND	"	33				
4-Chloroaniline	"			ND	"	33				
2-Chloronaphthalene	"			ND	"	33				
4-Chloro-3-methylphenol	"			ND	"	33				
2-Chlorophenol	"			ND	"	33				
4-Chlorophenyl phenyl ether	"			ND	"	33				
Chrysene	"			ND	"	33				
Dibenz (a,h) anthracene	"			ND	"	33				
Dibenzofuran	"			ND	"	33				
Di-n-butyl phthalate	"			ND	"	170				
1,3-Dichlorobenzene	"			ND	"	33				
1,4-Dichlorobenzene	"			ND	"	33				
1,2-Dichlorobenzene	"			ND	"	33				
3,3'-Dichlorobenzidine	"			ND	"	170				
2,4-Dichlorophenol	"			ND	"	33				
Diethyl phthalate	"			ND	"	33				
2,4-Dimethylphenol	"			ND	"	33				
Dimethyl phthalate	"			ND	"	33				
4,6-Dinitro-2-methylphenol	"			ND	"	170				
2,4-Dinitrophenol	"			ND	"	170				
2,4-Dinitrotoluene	"			ND	"	33				
2,6-Dinitrotoluene	"			ND	"	33				
Di-n-octyl phthalate	"			ND	"	33				

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	**10V8024-BLK1**									
Fluoranthene	10/1/98			**ND**	ug/kg	**33**				
Fluorene	"			**ND**	"	**33**				
Hexachlorobenzene	"			**ND**	"	**33**				
Hexachlorobutadiene	"			**ND**	"	**33**				
Hexachlorocyclopentadiene	"			**ND**	"	**33**				
Hexachloroethane	"			**ND**	"	**33**				
Indeno (1,2,3-cd) pyrene	"			**ND**	"	**33**				
Isophorone	"			**ND**	"	**33**				
2-Methylnaphthalene	"			**ND**	"	**33**				
2-Methylphenol	"			**ND**	"	**33**				
3 & 4-Methylphenol	"			**ND**	"	**33**				
Naphthalene	"			**ND**	"	**33**				
2-Nitroaniline	"			**ND**	"	**170**				
3-Nitroaniline	"			**ND**	"	**170**				
4-Nitroaniline	"			**ND**	"	**170**				
Nitrobenzene	"			**ND**	"	**33**				
2-Nitrophenol	"			**ND**	"	**33**				
4-Nitrophenol	"			**ND**	"	**170**				
N-Nitrosodiphenylamine	"			**ND**	"	**33**				
N-Nitrosodi-n-propylamine	"			**ND**	"	**33**				
Pentachlorophenol	"			**ND**	"	**170**				
Phenanthrene	"			**ND**	"	**33**				
Phenol	"			**ND**	"	**33**				
Pyrene	"			**ND**	"	**33**				
1,2,4-Trichlorobenzene	"			**ND**	"	**33**				
2,4,5-Trichlorophenol	"			**ND**	"	**170**				
2,4,6-Trichlorophenol	"			**ND**	"	**33**				
Surrogate: 2-FP	"	*3300*		*1100*	"	*25-120*	*33*			
Surrogate: Phenol-d6	"	*3300*		*1400*	"	*24-110*	*42*			
Surrogate: 2,4,6-TBP	"	*3300*		*2300*	"	*19-120*	*70*			
Surrogate: Nitrobenzene-d5	"	*1700*		*760*	"	*23-120*	*45*			
Surrogate: 2-FBP	"	*1700*		*1900*	"	*30-120*	*110*			
Surrogate: p-Terphenyl-d14	"	*1700*		*1300*	"	*18-140*	*76*			
LCS	**10V8024-BS1**									
Acenaphthene	10/1/98	1700		990	ug/kg	31-140	58			
4-Chloro-3-methylphenol	"	3300		1700	"	26-100	52			
2-Chlorophenol	"	3300		1700	"	25-100	52			
1,4-Dichlorobenzene	"	1700		740	"	28-100	44			
2,4-Dinitrotoluene	"	1700		990	"	28-89	58			
4-Nitrophenol	"	3300		1800	"	11-110	55			

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Semivolatile Organic Compounds by EPA Method 8270C/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS (continued)	**10V8024-BS1**									
N-Nitrosodi-n-propylamine	10/1/98	1700		900	ug/kg	41-130	53			
Pentachlorophenol	"	3300		2000	"	17-110	61			
Phenol	"	3300		1500	"	26-90	45			
Pyrene	"	1700		1200	"	35-140	71			
1,2,4-Trichlorobenzene	"	1700		890	"	38-110	52			
LCS Dup	**10V8024-BSD1**									
Acenaphthene	10/1/98	1700		940	ug/kg	31-140	55	19	5.3	
4-Chloro-3-methylphenol	"	3300		1700	"	26-100	52	33	0	
2-Chlorophenol	"	3300		1600	"	25-100	48	50	8.0	
1,4-Dichlorobenzene	"	1700		700	"	28-100	41	27	7.1	
2,4-Dinitrotoluene	"	1700		900	"	28-89	53	47	9.0	
4-Nitrophenol	"	3300		1700	"	11-110	52	50	5.6	
N-Nitrosodi-n-propylamine	"	1700		850	"	41-130	50	38	5.8	
Pentachlorophenol	"	3300		1700	"	17-110	52	47	16	
Phenol	"	3300		1500	"	26-90	45	35	0	
Pyrene	"	1700		1000	"	35-140	59	36	18	
1,2,4-Trichlorobenzene	"	1700		840	"	38-110	49	23	5.9	
Matrix Spike	**10V8024-MS1**		**8090189-31**							
Acenaphthene	10/1/98	1700	ND	1000	ug/kg	31-140	**59**			
4-Chloro-3-methylphenol	"	3300	ND	1800	"	26-100	**55**			
2-Chlorophenol	"	3300	ND	1800	"	25-100	**55**			
1,4-Dichlorobenzene	"	1700	ND	780	"	28-100	**46**			
2,4-Dinitrotoluene	"	1700	ND	960	"	28-89	**56**			
4-Nitrophenol	"	3300	ND	1700	"	11-110	**52**			
N-Nitrosodi-n-propylamine	"	1700	ND	910	"	41-130	**54**			
Pentachlorophenol	"	3300	ND	1900	"	17-110	**58**			
Phenol	"	3300	ND	1700	"	26-90	**52**			
Pyrene	"	1700	ND	1100	"	35-140	**65**			
1,2,4-Trichlorobenzene	"	1700	ND	940	"	38-110	**55**			

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Total Metals by EPA 200 Series Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 10V8171	**Date Prepared: 9/29/98**					**Extraction Method: General Preparation**				
Blank	**10V8171-BLK1**									
Selenium	10/11/98			**ND**	mg/l	**0.0050**				
LCS	**10V8171-BS1**									
Selenium	10/11/98	1.0		1.1	mg/l	80-120	110			D
LCS Dup	**10V8171-BSD1**									
Selenium	10/11/98	1.0		1.2	mg/l	80-120	120	30	8.7	D
Batch: 10V8209	**Date Prepared: 10/6/98**					**Extraction Method: General Preparation**				
Blank	**10V8209-BLK1**									
Cadmium	10/14/98			**ND**	mg/l	**0.0010**				
LCS	**10V8209-BS1**									
Cadmium	10/14/98	1.0		1.0	mg/l	80-120	100			D
LCS Dup	**10V8209-BSD1**									
Cadmium	10/14/98	1.0		1.1	mg/l	80-120	110	30	9.5	D
Batch: 10V8210	**Date Prepared: 10/6/98**					**Extraction Method: General Preparation**				
Blank	**10V8210-BLK1**									
Lead	10/14/98			**ND**	mg/l	**0.0050**				
LCS	**10V8210-BS1**									
Lead	10/14/98	1.0		1.0	mg/l	80-120	100			D
LCS Dup	**10V8210-BSD1**									
Lead	10/14/98	1.0		0.99	mg/l	80-120	99	30	1.0	D
Matrix Spike	**10V8210-MS1**		**8100007-06**							
Lead	10/14/98	0.025	ND	0.024	mg/l	80-120	**96**			
Batch: 10V8214	**Date Prepared: 10/6/98**					**Extraction Method: General Preparation**				
Blank	**10V8214-BLK1**									
Arsenic	10/14/98			**ND**	mg/l	**0.0050**				
LCS	**10V8214-BS1**									
Arsenic	10/14/98	1.0		1.1	mg/l	80-120	110			D
LCS Dup	**10V8214-BSD1**									
Arsenic	10/14/98	1.0		1.2	mg/l	80-120	120		8.7	D

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Total Metals by EPA 6000/7000 Series Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 09V8442	**Date Prepared: 9/29/98**				**Extraction Method: General Preparation**					
Blank	**09V8442-BLK1**									
Arsenic	9/30/98			**ND**	mg/kg	**5.0**				
Barium	"			**ND**	"	**2.5**				
Cadmium	"			**ND**	"	**0.75**				
Chromium	"			**ND**	"	**0.75**				
Lead	"			**ND**	"	**5.0**				
Selenium	"			**ND**	"	**5.0**				
LCS	**09V8442-BS1**									
Arsenic	9/30/98	25		28	mg/kg	80-120	110			
Barium	"	25		28	"	80-120	110			
Cadmium	"	25		28	"	80-120	110			
Chromium	"			28	"	80-120				
Lead	"	25		28	"	80-120	110			
Selenium	"	25		25	"	80-120	100			
LCS Dup	**09V8442-BSD1**									
Arsenic	9/30/98	25		25	mg/kg	80-120	100	30	9.5	
Barium	"	25		25	"	80-120	100	30	9.5	
Cadmium	"	25		25	"	80-120	100	30	9.5	
Chromium	"			28	"	80-120		30		
Lead	"	25		25	"	80-120	100	30	9.5	
Selenium	"	25		25	"	80-120	100	30	0	
Batch: 10V8084	**Date Prepared: 9/29/98**				**Extraction Method: General Preparation**					
Blank	**10V8084-BLK1**									
Silver	10/6/98			**ND**	mg/kg	**2.0**				
LCS	**10V8084-BS1**									
Silver	10/6/98	25		25	mg/kg	70-130	100			
LCS Dup	**10V8084-BSD1**									
Silver	10/6/98	25		22	mg/kg	70-130	88	20	13	
Batch: 10V8095	**Date Prepared: 9/29/98**				**Extraction Method: General Preparation**					
Blank	**10V8095-BLK1**									
Arsenic	10/7/98			**ND**	mg/l	**0.20**				
Barium	"			**ND**	"	**0.10**				
Cadmium	"			**ND**	"	**0.030**				
Chromium	"			**ND**	"	**0.030**				
Lead	"			**ND**	"	**0.10**				

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Delta Environmental	Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Total Metals by EPA 6000/7000 Series Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Blank (continued)	**10V8095-BLK1**									
Selenium	10/7/98			**ND**	mg/l	**0.20**				
Silver	"			**ND**	"	**0.030**				
LCS	**10V8095-BS1**									
Arsenic	10/7/98	1.0		1.0	mg/l	80-120	100			
Barium	"	1.0		1.1	"	80-120	110			
Cadmium	"	1.0		1.0	"	80-120	100			
Chromium	"	1.0		1.0	"	80-120	100			
Lead	"	1.0		1.1	"	80-120	110			
Selenium	"	1.0		1.0	"	80-120	100			
Silver	"	1.0		0.97	"	80-120	97			
LCS Dup	**10V8095-BSD1**									
Arsenic	10/7/98	1.0		1.0	mg/l	80-120	100	20	0	
Barium	"	1.0		1.0	"	80-120	100	30	9.5	
Cadmium	"	1.0		1.1	"	80-120	110	30	9.5	
Chromium	"	1.0		1.0	"	80-120	100	30	0	
Lead	"	1.0		1.0	"	80-120	100	30	9.5	
Selenium	"	1.0		0.95	"	80-120	95	30	5.1	
Silver	"	1.0		1.0	"	80-120	100	20	3.0	

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**Refer to end of report for text of notes and definitions.*

Lari Hall, Project Manager

STAR ANALYTICAL

14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155
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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Conventional Chemistry Parameters by APHA/EPA Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 09V8382	**Date Prepared: 9/25/98**				**Extraction Method: General Preparation**					
Duplicate	**09V8382-DUP1**		**8090264-04**							
Reactivity	9/25/98		ND	ND	N/A					
Batch: 09V8389	**Date Prepared: 9/28/98**				**Extraction Method: General Preparation**					
Duplicate	**09V8389-DUP1**		**8090291-17**							
pH	9/28/98		7.89	7.90	pH units			10.0	0.127	
Batch: 09V8416	**Date Prepared: 9/29/98**				**Extraction Method: General Preparation**					
Blank	**09V8416-BLK1**									
Petroleum Oil Hydrocarbons	9/29/98			ND	mg/l	1.0				
LCS	**09V8416-BS1**									
Petroleum Oil Hydrocarbons	9/29/98	8.0		7.8	mg/l	80-120	98			
LCS Dup	**09V8416-BSD1**									
Petroleum Oil Hydrocarbons	9/29/98	8.0		8.0	mg/l	80-120	100	30	2.0	
Batch: 09V8446	**Date Prepared: 9/30/98**				**Extraction Method: General Preparation**					
Blank	**09V8446-BLK1**									
Petroleum Oil Hydrocarbons	9/30/98			ND	mg/kg	5.0				
LCS	**09V8446-BS1**									
Petroleum Oil Hydrocarbons	9/30/98	200		170	mg/kg	80-120	85			
LCS Dup	**09V8446-BSD1**									
Petroleum Oil Hydrocarbons	9/30/98	200		170	mg/kg	80-120	85	30	0	
Matrix Spike	**09V8446-MS1**		**8090291-03**							
Petroleum Oil Hydrocarbons	9/30/98	200	ND	180	mg/kg	80-120	**90**			
Matrix Spike Dup	**09V8446-MSD1**		**8090291-03**							
Petroleum Oil Hydrocarbons	9/30/98	200	ND	170	mg/kg	80-120	**85**	30	5.7	
Batch: 10V8117	**Date Prepared: 10/1/98**				**Extraction Method: General Preparation**					
Blank	**10V8117-BLK1**									
Total Dissolved Solids	10/1/98			**10**	mg/l	**10**				
Duplicate	**10V8117-DUP1**		**8090291-19**							
Total Dissolved Solids	10/1/98		4600	4400	mg/l			17	4.4	

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

Physical Parameters by APHA/ASTM/EPA Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 09V8425	**Date Prepared: 9/29/98**				**Extraction Method: General Preparation**					
Blank	**09V8425-BLK1**									
Reactive Cyanide	9/29/98			**ND**	mg/kg	**250**				
LCS	**09V8425-BS1**									
Reactive Cyanide	9/29/98			ND	mg/kg					
Duplicate	**09V8425-DUP1**		**8090291-10**							
Reactive Cyanide	9/29/98		ND	ND	mg/kg			20		
Batch: 09V8455	**Date Prepared: 9/30/98**				**Extraction Method: General Preparation**					
Blank	**09V8455-BLK1**									
Reactive Sulfide	9/30/98			**ND**	mg/kg	**1.0**				
Duplicate	**09V8455-DUP1**		**8090291-10**							
Reactive Sulfide	9/30/98		ND	ND	mg/kg			30		

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

TCLP Volatile Organic Compounds by EPA Method 1311/8260/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 10V8021	**Date Prepared: 10/1/98**					**Extraction Method: EPA 5030**				
Blank	**10V8021-BLK1**									
Benzene	10/1/98			**ND**	mg/l	**0.0200**				
2-Butanone	"			**ND**	"	**0.100**				
Carbon tetrachloride	"			**ND**	"	**0.0200**				
Chlorobenzene	"			**ND**	"	**0.0200**				
Chloroform	"			**ND**	"	**0.0200**				
1,2-Dichloroethane	"			**ND**	"	**0.0200**				
1,1-Dichloroethene	"			**ND**	"	**0.0200**				
Tetrachloroethene	"			**ND**	"	**0.0200**				
Trichloroethene	"			**ND**	"	**0.0200**				
Vinyl chloride	"			**ND**	"	**0.0200**				
Surrogate: DBFM	"	*0.0500*		*0.0507*	"	*86.0-118*	*101*			
Surrogate: Toluene-d8	"	*0.0500*		*0.0508*	"	*88.0-110*	*102*			
Surrogate: 4-BFB	"	*0.0500*		*0.0488*	"	*86.0-115*	*97.6*			
LCS	**10V8021-BS1**									
Benzene	10/1/98	0.0500		0.0539	mg/l	76.0-127	108			
Chlorobenzene	"	0.0500		0.0609	"	75.0-130	122			
1,1-Dichloroethene	"	0.0500		0.0409	"	57.0-145	81.8			
Trichloroethene	"	0.0500		0.0552	"	71.0-140	110			
Surrogate: DBFM	"	*0.0500*		*0.0512*	"	*86.0-118*	*102*			
Surrogate: Toluene-d8	"	*0.0500*		*0.0502*	"	*88.0-110*	*100*			
Surrogate: 4-BFB	"	*0.0500*		*0.0506*	"	*86.0-115*	*101*			
LCS Dup	**10V8021-BSD1**									
Benzene	10/1/98	0.0500		0.0531	mg/l	76.0-127	106	15.0	1.87	
Chlorobenzene	"	0.0500		0.0605	"	75.0-130	121	15.0	0.823	
1,1-Dichloroethene	"	0.0500		0.0406	"	58.0-145	81.2	15.0	0.736	
Trichloroethene	"	0.0500		0.0558	"	71.0-127	112	15.0	1.80	
Surrogate: DBFM	"	*0.0500*		*0.0508*	"	*86.0-118*	*102*			
Surrogate: Toluene-d8	"	*0.0500*		*0.0501*	"	*88.0-110*	*100*			
Surrogate: 4-BFB	"	*0.0500*		*0.0497*	"	*86.0-115*	*99.4*			

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

TCLP Semivolatiles by EPA Method 1311/8270/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 10V8040	**Date Prepared: 10/1/98**					**Extraction Method: EPA 3550**				
Blank	**10V8040-BLK1**									
o-Cresol	10/2/98			**ND**	mg/l	**0.00800**				
m,p-Cresols	"			**ND**	"	**0.00800**				
1,4-Dichlorobenzene	"			**ND**	"	**0.00800**				
2,4-Dinitrotoluene	"			**ND**	"	**0.00800**				
Hexachlorobenzene	"			**ND**	"	**0.00800**				
Hexachlorobutadiene	"			**ND**	"	**0.00800**				
Hexachloroethane	"			**ND**	"	**0.00800**				
Nitrobenzene	"			**ND**	"	**0.00800**				
Pentachlorophenol	"			**ND**	"	**0.0400**				
Pyridine	"			**ND**	"	**0.0400**				
2,4,5-Trichlorophenol	"			**ND**	"	**0.0400**				
2,4,6-Trichlorophenol	"			**ND**	"	**0.00800**				
Surrogate: 2-FP	"	*0.200*		*0.0745*	"	*43.0-116*	*37.3*			*9*
Surrogate: Phenol-d6	"	*0.200*		*0.0622*	"	*10.0-94.0*	*31.1*			
Surrogate: 2,4,6-TBP	"	*0.200*		*0.0891*	"	*10.0-123*	*44.6*			
Surrogate: Nitrobenzene-d5	"	*0.100*		*0.0357*	"	*35.0-114*	*35.7*			
Surrogate: 2-FBP	"	*0.100*		*0.0366*	"	*43.0-116*	*36.6*			*9*
Surrogate: p-Terphenyl-d14	"	*0.100*		*0.0908*	"	*33.0-141*	*90.8*			
LCS	**10V8040-BS1**									
1,4-Dichlorobenzene	10/2/98	0.100		0.0503	mg/l	30.0-150	50.3			D
2,4-Dinitrotoluene	"	0.100		0.101	"	30.0-150	101			D
Pentachlorophenol	"	0.200		0.166	"	30.0-150	83.0			D
LCS Dup	**10V8040-BSD1**									
1,4-Dichlorobenzene	10/2/98	0.100		0.0463	mg/l	30.0-150	46.3	50.0	8.28	D
2,4-Dinitrotoluene	"	0.100		0.102	"	30.0-150	102	50.0	0.985	D
Pentachlorophenol	"	0.200		0.164	"	30.0-150	82.0	50.0	1.21	D

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L Hall

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

TCLP Metals by EPA 1311/6000/7000 Series Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit / Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 10V8096	**Date Prepared: 9/24/98**					**Extraction Method: General Preparation**				
Blank	**10V8096-BLK1**									
Arsenic	10/7/98			ND	mg/l	**0.200**				
Barium	"			ND	"	**0.100**				
Cadmium	"			ND	"	**0.0300**				
Chromium	"			ND	"	**0.0300**				
Lead	"			ND	"	**0.100**				
Selenium	"			ND	"	**0.200**				
Silver	"			ND	"	**0.0300**				
Blank	**10V8096-BLK2**									
Arsenic	10/7/98			ND	mg/l	**0.200**				
Barium	"			ND	"	**0.230**				
Cadmium	"			ND	"	**0.0300**				
Chromium	"			ND	"	**0.0300**				
Lead	"			ND	"	**0.100**				
Selenium	"			ND	"	**0.200**				
Silver	"			ND	"	**0.0300**				
LCS	**10V8096-BS1**									
Arsenic	10/7/98	1.00		1.00	mg/l	50.0-150	100			
Barium	"	1.00		1.00	"	50.0-150	100			
Cadmium	"	1.00		1.00	"	50.0-150	100			
Chromium	"	1.00		1.00	"	50.0-150	100			
Lead	"	1.00		1.00	"	50.0-150	100			
Selenium	"	1.00		1.00	"	50.0-150	100			
Silver	"	1.00		0.950	"	50.0-150	95.0			
LCS	**10V8096-BS2**									
Arsenic	10/7/98	1.00		0.950	mg/l	50.0-150	95.0			
Barium	"	1.00		1.25	"	50.0-150	125			
Cadmium	"	1.00		0.980	"	50.0-150	98.0			
Chromium	"	1.00		0.980	"	50.0-150	98.0			
Lead	"	1.00		0.950	"	50.0-150	95.0			
Selenium	"	1.00		0.940	"	50.0-150	94.0			
Silver	"	1.00		1.00	"	50.0-150	100			
LCS Dup	**10V8096-BSD1**									
Arsenic	10/7/98	1.00		1.00	mg/l	50.0-150	100	30.0	0	
Barium	"	1.00		1.00	"	50.0-150	100	30.0	0	
Cadmium	"	1.00		1.00	"	50.0-150	100	30.0	0	
Chromium	"	1.00		1.00	"	50.0-150	100	30.0	0	

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L Hall

Lari Hall, Project Manager

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Delta Environmental	Project:	Artesia	Sampled: 9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230	Project Number:	F098-130	Received: 9/26/98
Carrollton, TX 75006	Project Manager:	Destini Baldonado	Reported: 10/14/98 09:57

TCLP Metals by EPA 1311/6000/7000 Series Methods/Quality Control
Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
LCS Dup (continued)	**10V8096-BSD1**									
Lead	10/7/98	1.00		1.00	mg/l	50.0-150	100	30.0	0	
Selenium	"	1.00		1.00	"	50.0-150	100	30.0	0	
Silver	"	1.00		1.00	"	50.0-150	100	30.0	5.13	
LCS Dup	**10V8096-BSD2**									
Arsenic	10/7/98	1.00		1.10	mg/l	50.0-150	110	30.0	14.6	
Barium	"	1.00		1.00	"	50.0-150	100	30.0	22.2	
Cadmium	"	1.00		1.26	"	50.0-150	126	30.0	25.0	
Chromium	"	1.00		1.00	"	50.0-150	100	30.0	2.02	
Lead	"	1.00		1.00	"	50.0-150	100	30.0	5.13	
Selenium	"	1.00		1.00	"	50.0-150	100	30.0	6.19	
Silver	"	1.00		0.980	"	50.0-150	98.0	30.0	2.02	

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L Hall

Lari Hall, Project Manager

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Delta Environmental		Project:	Artesia	Sampled:	9/23/98 to 9/24/98
2340 Trinity Mills, Suite 230		Project Number:	F098-130	Received:	9/26/98
Carrollton, TX 75006		Project Manager:	Destini Baldonado	Reported:	10/14/98 09:57

Notes and Definitions

#	Note
D	Data reported from a dilution.
1	Diesel
2	Surrogate recovery outside control limits due to interference from coeluting compounds within the sample matrix.
3	various hydrocarbons C4 to C30
4	Non-diesel hydrocarbons C12 to C24
5	Various peak >C22
6	Non-diesel hydrocarbons <C12
7	10X WAS NEEDED DUE TO MATRIX EFFECTS; 218-18 10X WAS ND AS WELL
8	Estimated value.
9	Method blank re-running for surr recovery
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
Recov.	Recovery
RPD	Relative Percent Difference

Star Analytical, Inc.

L Hall

Lari Hall, Project Manager

CLIENT NAME: Delta Env. — Plus 10/2 (SOIL) R7K + F-85 — WORK ORDER: 8090291

REC. BY (PRINT): A.D.Lacy — DATE OF LOG-IN: 9/26/98

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) present? (Yes) No	01	A	So. Tank - SW	1-40z	Soil	9/24/98	
2. Custody Seal #: 4/bulk 08	02	↓	So. Tank - EW	↓	↓	↓	
3. Chain of Custody present? (Yes) / No	03		So. Tank - NW				
4. Chain of Custody filled out properly? (Yes) / No	04		So. Tank - WW				
5. Ice and packing material? (Yes) / No	05		No. Tank - SW				
6. Correct containers used? (Yes) / No	06		No. Tank - EW				
7. Containers intact? (Yes) No	07		No. Tank - NW				
8 Does information on custody reports, traffic reports and sample tags agree? (Yes) / No	08	↓	No. Tank - WW	↓	↓	↓	
9. Headspace in VOA's? Yes (No)	09	(AD)	G.W. Composite	(AD)	(AD)	(AD)	No Tests Requested
10. Preserved properly? (Yes) / No	10	A	Stockpile	1-40z	Soil 40z	9/24/98	No Bottles Sent
11. Date Rec. at Lab: 9/26/98	11	A-B	Sump	2-40z	Soil 40z (AD)	9/23/98	
12. Time Rec. at Lab: 10:30	12		Cont. - Pit				
13. Temp Rec. at Lab: 16°C (Blank)	13		Cont - 1				
	14		Cont - 2				
2 coolers Rec'd. (AD)	15	↓	Cont - 3	↓	↓	↓	

8090291-09A R7K
GW Composite
09/24/98
Water - 4oz Jar

Shipping Method (circle one): STAR CLIENT AIRBORNE (FED EX) UPS OTHER: _____

CLIENT NAME: Delta Env. WORK ORDER: 8090391

REC. BY (PRINT): A. Gilday DATE OF LOG-IN: 9/26/98

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT IDENTIFICATION	CONTAINER DESCRIPTION	SAMPLE MATRIX	DATE SAMP	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) present? (Yes) / No	16	A-B	CONT-4	2-4oz	Soil	9/23/98	
2. Custody Seal #: 9/24/98 12R.	17	↓	CONT-5	↓	↓	↓	
3. Chain of Custody present? (Yes) / No	18	↓	TANK	PLASTIC BOTTLE 250 mL GLASS	WATER	9/24/98	- HNO3 - H2SO4
4. Chain of Custody filled out properly? (Yes) / No	19	A-F	FIT WATER	4-VOAS 1-AMBER LITER 1 AMBER 500 mL	↓	↓	- HCL - NO PRES - NO PRES
5. Ice and packing material? (Yes) / No							
6. Correct containers used? (Yes) / No							
7 Containers intact? (Yes) / No							
8 Does information on custody reports, traffic reports and sample tags agree? (Yes) / No							
9. Headspace in VOA's? Yes / (No)							
10. Preserved properly? (Yes) / No							
11. Date Rec. at Lab: 9/26/98							
12. Time Rec. at Lab: 10:30							
13. Temp Rec. at Lab: 10°C (Ambient)							
Locked Rec'd. (PM)							

Shipping Method (circle one): STAR CLIENT AIRBORNE (FED EX) UPS OTHER: _____

STAR ANALYTICAL
CHAIN-OF-CUSTODY FORM

14500 Trinity Boulevard, Suite 106
Fort Worth, Texas 76155
(817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-5431

Company Name: Delta Environmental Cons.	Project Name: Artesia
Address: 2340 Trinity Mills Rd. Suite 230	Billing Address (if different):
City: Carrollton State: Tx Zip Code: 75007	
Telephone: 972/418-5311 FAX#: 972/418-5243	P.O.#: F095-130
Report To: Destini Baldonado Sampler: DB	

Turnaround Time:
- ❑ 10 Working Days
- ❑ 7 Working Days
- ❑ 5 Working Days
- ❑ 4 Working Days
- ❑ 3 Working Days
- ❑ 2 Working Days
- ❑ 24 Hours
- ❑ 2 - 8 Hours

Analyses Requested: TPH 418.1 | VOC | SVOC | Full TCLP RCI

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Star's Sample #	TPH 418.1	VOC	SVOC	Full TCLP RCI	Comments
1. So. Tank-SW	9/24/98 11:55	soil	1	glass	80410791-01	X				
2. So. Tank-SW	12:00				80410791-02	X				Highest TPH gets VOC 8260 and SVOC 8270
3. So. Tank-NW	12:05				80410791-03	X				
4. So. Tank-WW	9/24/98 12:10	soil	1	glass	80410791-04	X				
5. [illegible]	15:30				80410791-05	X				
6. [illegible]	15:35				80410791-06	X				Highest TPH gets VOC 8260 & SVOC 8270
7. [illegible]	15:40				80410791-07	X				
8. [illegible]	15:45	soil	1	glass	80410791-08	X				
9 G.W. Composite	9/24/98 15:55	water		glass	80410791-09					No bottles received
10 Stockpile	9/24/98 17:00	soil	1	glass	80410791-10			X		

Relinquished By: [signature]	Date: 9:40pm	Time: 9/24/98	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: [signature]	Date: 9/25/98	Time: 1030

Samples Received in Good Condition? ☑ Yes ❑ No
Samples Pre-Preserved? ☑ Yes ❑ No ❑ N/A
Samples Cold? ☑ Yes ❑ No
Custody Seal Intact? ☑ Yes ❑ No ❑ N/A
Method of Shipment: Fed Ex

Pink - Client
Yellow - Star
White - Star

STAR ANALYTICAL
CHAIN-OF-CUSTODY FORM

14500 Trinity Boulevard, Suite 106
Fort Worth, Texas 76155
(817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-5431

Company Name: Delta Environmental	Project Name: F098-130 - Artesia
Address: 2340 Trinity Mills Rd. Suite 230	Billing Address (if different):
City: Carrollton State: Tx Zip Code: 75007	
Telephone: 972/418-5311 FAX#: 972/418-5243	P.O.#: F098-130
Report To: Destini Ballonado Sampler: DB	

Turnaround Time: ☐ 10 Working Days ☒ 4 Working Days ☐ 24 Hours ☐ 7 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 5 Working Days ☐ 2 Working Days

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Star's Sample #	TPH-DRO	pH	RCRA-Metals	VOC	TPH-418	TDS	Comments
1. Sump	9/23/98 9:30	soil	2	glass	98-0924-11	X	X	X				
2. Cont.-Pit	9:45				98-0924-12	X	X	X				
3. Cont.-1	10:00				98-0924-13	X	X	X				
4. Cont.-2	10:20				98-0924-14	X	X	X	Highest TPH gets VOC			
5. Cont.-3	10:40				98-0924-15	X	X	X				
6. Cont.-4	11:00				98-0924-16	X	X	X				
7. Cont.-5	9/23/98 11:20	soil	2	glass	98-0924-17	X	X	X				
8. Tank	9/24/98 9:45	water	2	glass/plastic	98-0924-18			X	X			
9. Pit water	9/24/98 16:00	water	1	glass	98-0924-19	X		X	X	X		Please filter for RCRA metals
10.												

Relinquished By: D Ballonado	Date: 9/24/98	Time: 9:40 pm	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 9/24/98	Time: 10:30

Samples Received in Good Condition? ☑ Yes ☐ No Samples Cold? ☑ Yes ☐ No Method of Shipment Fed Ex

Samples Pre-Preserved? ☑ Yes ☐ No ☐ N/A Custody Seal Intact? ☑ Yes ☐ No ☐ N/A

Pink - Client
Yellow - Star
White - Star

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

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

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Haliburton Energy
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Banta/CRI
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2311 S First Artesia	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Haliburton Energy Services Artesia facilitie's wash rach grit. I have included a certificate of waste and a chain of custody.

11-003

Estimated Volume 30 yards & 200 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 11/11/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne J Kly TITLE: Env Geologist DATE: 11/16/98


NOV 1998

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Halliburton Energy Services

ADDRESS 2311 S. First, Artesia, NM 88210

GENERATING SITE Facility

COUNTY Eddy STATE NM

TYPE OF WASTE Washrack grit

ESTIMATED VOLUME 30 yards soil / 200 barrels liquid

GENERATING PROCESS Washrack

REMARKS

NMOCD FACILITY CRI

TRUCKING COMPANY Banta / CRI

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT Scott Nelson
SIGNATURE

NAME Scott Nelson
PRINTED

ADDRESS 5801 Lovington Hwy
Hobbs, NM 88240

DATE 11.11.98

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S. FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/04/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM
Lab Number: H3668-1
Sample ID: ARTESIA WASHRACK GRIT

Analysis Date: 06/03/98
Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL & INTACT
Sample Received By: JS
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3668-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.022	44	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.041	82	0.050
o-Cresol	200	<0.020	<0.005	0.035	70	0.050
m, p-Cresol	200	<0.020	<0.005	0.037	74	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.039	78	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.056	112	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.043	86	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.044	88	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.049	98	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.053	106	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.048	96	0.050
Pentachlorophenol	100	<0.020	<0.005	0.043	86	0.050

	% RECOVERY
Fluorophenol	34
Phenol-d5	33
Nitrobenzene-d5	76
2-Fluorobiphenyl	93
2,4,6-Tribromophenol	80
Terphenyl-d14	90

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke, Ph. D.

6/4/98
Date

PLEASE NOTE: **Liability and Damages.** **Cardinal's** liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S. FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/04/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM
Lab Number: H3668-1
Sample ID: ARTESIA WASHRACK GRIT

Analysis Date: 06/02/98
Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL & INTACT
Sample Received By: JS
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3668-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.095	95	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.088	88	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.095	95	0.100
Chloroform	6.0	<0.005	<0.005	0.103	103	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.100	100	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.095	95	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.101	101	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.096	96	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.108	108	0.100

	% RECOVERY
Dibromofluoromethane	114
Toluene-d8	113
Bromofluorobenzene	114

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

6/4/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/04/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM

Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL AND INTACT
Sample Received By: JS
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		06/03/98	06/03/98	06/03/98	06/03/98
H3668-1	ARTESIA	Not Reactive	Not Reactive	7.72	Nonflammable
	WASHRACK				
	GRIT				
Quality Control		NR	NR	7.05	NR
True Value QC		NR	NR	7.00	NR
% Accuracy		NR	NR	101	NR
Relative Percent Difference		NR	NR	0.7	NR

METHOD: EPA SW 846-7.3, 7.2, 1030 (proposed)

Chemist

6/4/98
Date

H3668-3.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/05/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM

Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL & INTACT
Sample Received By: JS
Analyzed By: BC

LAB NO.	SAMPLE ID	TPH (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:		06/03/98	06/03/98	06/03/98	06/03/98	06/03/98
H3668-1	ARTESIA	40400	<0.002	<0.002	<0.002	<0.006
	WASHRACK GRIT					
Quality Control		271	0.093	0.092	0.092	0.281
True Value QC		251	0.100	0.100	0.100	0.300
% Recovery		108	93.4	92.4	91.8	93.8
Relative Percent Difference		7.0	9.6	10.4	10.1	8.8

METHODS: TRPHC - EPA 600/7-79-020, 418.1; BTEX - EPA SW846-8020, 8260

Chemist

6/5/98
Date

H3668-1.XLS

PLEASE NOTE: **Liability and Damages.** **Cardinal's** liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/16/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM

Sampling Date: 05/31/98
Sample Type: SOIL
Sample Condition: COOL AND INTACT
Sample Received By: JS
Analyzed By: JC

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		06/05/98	06/05/98	06/05/98	06/08/98	06/05/98	06/11/98	06/15/98	06/05/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3668-1	ARTESIA	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
	WASHRACK GRIT								
Quality Control		0.184	2.037	1.850	2.030	2.008	1.985	0.0106	0.205
True Value QC		0.200	2.000	2.000	2.000	2.000	2.000	0.0100	0.200
% Recovery		92	102	87	101	100	95	106	103
Relative Standard Deviation		8.5	6.0	2.1	15	11	17	0.8	15
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

6/16/98
Date

H3668-2.XLS

PLEASE NOTE: **Liability and Damages.** **Cardinal's** liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

ARDINAL LABORATORIES
PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

Company Name: Halliburton Energy Services	BILL TO PO #:
Project Manager: Scott Nelson	Company: HES
Address: 2311 S. First	Attn: Scott Nelson
City: Artesia State: NM Zip: 88210	Address: 5801 Lovington Hwy
Phone #: 505 746 2758	City: Hobbs
Fax #:	State: NM Zip: 88240
Project #: Washtank grit	Phone #: 505 392 0746
Project Name:	Fax #: 505 392 1412
Project Location: Artesia NM	

LAB I.D. #	Sample I.D.	COMP(C) OR GRAB(G)	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERVATION: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H3668-1	Artesia Washtank grit		1									X	5-31-98	2:00pm

ANALYSIS REQUEST

TCLP THC TEX RCI

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by Client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by Client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Sampler Relinquished:	Date: 5-31-98	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Time: 2:00 pm	Received By: (Lab Staff)	Fax Results: ☐ Yes ☐ No
Delivered By: (Circle One)	Date: 5-31-98	Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials)
UPS - Fed Ex - Bus - Other:	Time: 2:00pm		REMARKS:

15053932476 CARDINAL LABS 373 P02 JUN 24 '98 11:27

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

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

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Oil Conservation Division

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Haliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Artesia facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter CRI
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2311 South 1st Street	Artesia, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Haliburton Energy Artesia facility's rain water. I have included a certificate of waste and a chain of custody.

Re Submitted See 11-007
on 11-30-98
Approved 12-2-98

11-003

Estimated Volume 4000 gallons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo
Waste Management Facility Authorized Agent
TITLE: Envir. Compliance Manager DATE: 11/18/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

DENIED

APPROVED BY: _____ TITLE: _____ DATE: _____

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

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator D C Well Service 5. Originating Site Denver City facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Bergstein Oil Field Service
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Hobbs HWY Denver City	Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the D C Well Service Denver City's sump wash. The material was generated by tool washing. I have included a certificate of waste and a chain of custody.

11-001

Estimated Volume 90 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

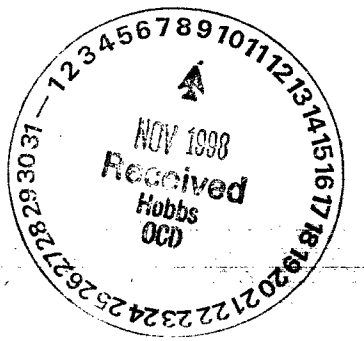
SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 11/09/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne J. Kelly TITLE: Env Geologist DATE: 11-17-98


NOV 1998
Received
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR D C Well Service

ADDRESS P.O. Box 1449 Denver City TX

GENERATING SITE Hobbs HWY Denver City TX

COUNTY Yoakum STATE TX

TYPE OF WASTE Sump Waste

ESTIMATED VOLUME 90 yards

GENERATING PROCESS Tool washing

REMARKS

NMOCD FACILITY Controlled Recovery, Inc.

TRUCKING COMPANY Bergstein Oil Field Service

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT R Bud Butler
SIGNATURE

NAME Bud Butler
PRINTED

ADDRESS 4907 Forbes CT.
Midland, Tx 79705

DATE Oct 28, 98

TEST RESULTS BY SAMPLE

Client: D.C. Well Service

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP SEMIVOLATILES GC/MS	SW-846, 8270					
Pyridine	SW-846, 8270	< 0.05	mg/L	5.0	09/30/98	AK
1,4-Dichlorobenzene	SW-846, 8270	< 0.05	mg/L	7.5	09/30/98	AK
2-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
3 and 4-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
Hexachloroethane	SW-846, 8270	< 0.05	mg/L	3.0	09/30/98	AK
Nitrobenzene	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
Hexachlorobutadiene	SW-846, 8270	< 0.05	mg/L	0.50	09/30/98	AK
2,4,6-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
2,4,5-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	400	09/30/98	AK
2,4-Dinitrotoluene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Hexachlorobenzene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Pentachlorophenol	SW-846, 8270	<0.25	mg/L	100	09/30/98	AK

TEST RESULTS BY SAMPLE

Client: D.C. Well Service

Sample: 01AX Transport Tank Collected: 09/17/98 11:55 Category: S
Job: TCLPMS TCLP Metals - Solid

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP ARSENIC	SW-846,7060A	<0.2	mg/L	0.2	10/05/98	DSR
TCLP BARIUM	SW-846,7080A	0.81	mg/L	0.01	10/05/98	DSR
TCLP CADMIUM	SW-846, 7130	<0.03	mg/L	0.03	10/05/98	DSR
TCLP CHROMIUM	SW-846, 7190	<0.02	mg/L	0.02	10/05/98	DSR
TCLP LEAD	SW-846, 7420	<0.3	mg/L	0.3	10/05/98	DSR
TCLP MERCURY	SW-846,7470A	0.002	mg/L	0.002	09/30/98	JBA
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/26/98	DATE		09/26/98	AR
TCLP SELENIUM	SW-846,7740A	<0.4	mg/L	0.4	10/05/98	DSR
TCLP SILVER	SW-846, 7760	<0.02	mg/L	0.02	10/02/98	JBA

Sample: 02A Transport Tank Collected: 09/17/98 11:45 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP VOLATILE ORGANICS	SW-846, 8260					
Benzene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
2-Butanone (MEK)	SW-846, 8260	<0.1	mg/L	200	10/02/98	EY
Carbon Tetrachloride	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Chlorobenzene	SW-846, 8260	<0.05	mg/L	100	10/02/98	EY
Chloroform	SW-846, 8260	<0.05	mg/L	6.0	10/02/98	EY
1,2-Dichloroethane	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
1,1-Dichloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Tetrachloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Trichloroethene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Vinyl Chloride	SW-846, 8260	<0.1	mg/L	0.20	10/02/98	EY
ZERO HEADSPACE EXTRACTION	SW-846, 1311	09/29/98	DATE		09/29/98	TJ

Sample: 03A Transport Tank Collected: 09/17/98 11:25 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/28/98	DATE		09/28/98	TJ

Mail to TNRCC Remediation Division P.O. Box 13087 - Capitol Station Austin TX 78711-3087

TNRCC

Industrial & Hazardous Waste
Corrective Action
Closure/Remediation Notification Information Sheet

NAME OF OWNER / OPERATOR	
Mailing address	D C WELL SERVICE, INC.
Street	P O Box 1449
City / State / Zip	Denver City, TX 79323
CLOSURE / REMEDIATION	
Site address	3 miles west of Denver City on Hiway 83
Street or Location	
City	Denver City, TX 79323
County	Yoakum County
Site Solid Waste Registration #	N/A
Site EPA Identification #	N/A
Site I&HW Permit #	
OWNER / OPERATOR	D C WELL SERVICE, INC.
CONTACT NAME	Shane Harvey
PHONE #	(806) 592-2118
CONSULTANT	
CONTACT NAME	
PHONE #	
FORMER NAME(S) OF FACILITY	RELIABLE WELL SERVICE - prior to 7-1-69
RCRA REGULATED UNIT (Y/N)	
RISK STANDARD TO ATTAIN	
BRIEF DESCRIPTION	Transport tank, buried and used for storage of waste water accumulated in steaming and cleaning of oilfield equipment
SCHEDULE OF ACTIVITIES	Removal of tank, analyzing contents of tank, and soil surrounding tank. 9-15-98 to 9-22-98.

Contents turned over to County 9-17-98 @ 13:34

Jeffrey D. Deel TNRCC

MAXIM TECHNOLOGIES INC

1703 West Industrial P.O. Box 2150 * Midland, Texas 79701 * 915/683-3349 FAX 915/686-0492

Client Bud Butler
D.C. Well Service
4907 Foxboro Ct.
Midland, TX 79705

Customer No. 100640
Report No. M8-09-078
Report Date 10/07/98 15:42

Project DC-1,2,3,4,5,6

Phone: 915/570-7120 Fax:

Date Sampled 09/22/98

Sampled By Bud Butler

Sample Type Soil

Transported by Bud Butler

P.O. # _____

Date Received 09/22/98

Lab No.	Sample Identification
M8-09-078-01	DC-1,DC-2,DC-3
M8-09-078-02	DC-4,DC-5,DC-6

Our letters and reports are for the exclusive use of the client to whom they are addressed and shall not be reproduced except in full without the approval of the testing laboratory. The use of our name must receive our prior written approval. Our letters and reports apply only to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar samples.

Reviewed By

MAXIM

17 HN:
Gary Shipp -

CALL- me (806) 592 - 2118
Bud

MAXIM
TECHNOLOGIES INC

1703 West Industrial P.O. Box 2150 * Midland, Texas 79701 * 915/683-3349 FAX 915/686-0492

Client Bud Butler
D.C. Well Service
4907 Foxboro Ct.
Midland, TX 79705

Customer No. 100640
Report No. M8-09-079
Report Date 10/07/98 09:19

Project Transport Tank

Phone: 915/570-7120 Fax:

Date Sampled 09/17/98

Sampled By Unknown

Sample Type ~~Sulfide~~

Transported by Bud Butler

P.O. # _____

Date Received 09/22/98

Lab No.	Sample Identification
M8-09-079-01	Transport Tank
M8-09-079-02	Transport Tank
M8-09-079-03	Transport Tank

Our letters and reports are for the exclusive use of the client to whom they are addressed and shall not be reproduced except in full without the approval of the testing laboratory. The use of our name must receive our prior written approval. Our letters and reports apply only to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar samples.

CDK
Reviewed By

MAXIM
Shelly Stovall

995078

Analysis Request and Chain of Custody Record

Page _____ of _____

MAXIM TECHNOLOGIES INC

- ☐ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
- ☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
- ☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no.

Client/Project: D. C. Well Service - Roy Harvey - Denver City

P.O.#

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
	Transport Tank	9-17-98 11:55			4oz Glass	sludge		TCLP Metals	
	"	9-17-98 11:45			↓	↓		TCLP VOA	
		9-17-98 11:25			↓	↓		TCLP Semi VOA	

Samplers: *(Print)*

Affiliation

Relinquished by: *(Signature)* Bud Butler — Date: 9/22/98 Time: 1535

Relinquished by: *(Signature)* — Date: Time:

Relinquished by: *(Signature)* — Date: Time:

Received by: *(Signature)* — Date: Time:

Received by: *(Signature)* — Date: Time:

Received by Laboratory: *(Signature)* Kelly Stout — Date: 9-22-98 Time: 15:39

COC Seal No.

REC'D. ON ICE Yes ____ No ____

Intact:

Laboratory No.

Results by _____

Rush Charges Authorized

Yes ____ No ____

REMARKS:

Data Results To:

1. Bud Butler
   4907 Foxboro Ct
2. Midland, TX 79705

Analysis Request and Chain of Custody Record

Page _____ of _____

MAXIM TECHNOLOGIES INC

☐ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no.

Client/Project: D. C. Well Service - Roy Harvey - Denver City

P.O.#

Lab ID No.	Field Sample No / Identification	Date and Time	Grab	Comp	Sample Container (Size/Matl)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
	Transport Tank	9-17-98 11:35			4oz Glass	Sludge		TCLP Metals	
	"	9-17-98 11:45			↓	↓		TCLP VOA	
		9-17-98 11:25			↓	↓		TCLP Semi VOA	

Samplers: (Print)

Affiliation

Results by _____

Rush Charges Authorized

Yes _____ No _____

Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:
Bud Butler	Date: 9/22/98 Time: 1535		Date: Time:
Relinquished by: (Signature)	Date: Time:	Received by: (Signature)	Date: Time:
Relinquished by: (Signature)	Date: Time:	[illegible]	Date: 9-22-98 Time: 1535

COC Seal No.

REC'D. ON ICE

Yes _____ No _____

Intact

Laboratory No.

REMARKS:

Data Results To:

1. Bud Butler
2. 4907 Fxboro Ct Midland, TX 79705

TEST RESULTS BY SAMPLE

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP SEMIVOLATILES GC/MS	SW-846, 8270					
Pyridine	SW-846, 8270	< 0.05	mg/L	5.0	09/30/98	AK
1,4-Dichlorobenzene	SW-846, 8270	< 0.05	mg/L	7.5	09/30/98	AK
2-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
3 and 4-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
Hexachloroethane	SW-846, 8270	< 0.05	mg/L	3.0	09/30/98	AK
Nitrobenzene	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
Hexachlorobutadiene	SW-846, 8270	< 0.05	mg/L	0.50	09/30/98	AK
2,4,6-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
2,4,5-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	400	09/30/98	AK
2,4-Dinitrotoluene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Hexachlorobenzene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Pentachlorophenol	SW-846, 8270	<0.25	mg/L	100	09/30/98	AK

Sample: 01AX Transport Tank Collected: 09/17/98 11:55 Category: S
Job: TCLPMS TCLP Metals - Solid

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP ARSENIC	SW-846,7060A	<0.2	mg/L	0.2	10/05/98	DSR
TCLP BARIUM	SW-846,7080A	0.81	mg/L	0.01	10/05/98	DSR
TCLP CADMIUM	SW-846, 7130	<0.03	mg/L	0.03	10/05/98	DSR
TCLP CHROMIUM	SW-846, 7190	<0.02	mg/L	0.02	10/05/98	DSR
TCLP LEAD	SW-846, 7420	<0.3	mg/L	0.3	10/05/98	DSR
TCLP MERCURY	SW-846,7470A	0.002	mg/L	0.002	09/30/98	JBA
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/26/98	DATE		09/26/98	AR
TCLP SELENIUM	SW-846,7740A	<0.4	mg/L	0.4	10/05/98	DSR
TCLP SILVER	SW-846, 7760	<0.02	mg/L	0.02	10/02/98	JBA

Sample: 02A Transport Tank Collected: 09/17/98 11:45 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP VOLATILE ORGANICS	SW-846, 8260					
Benzene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
2-Butanone (MEK)	SW-846, 8260	<0.1	mg/L	200	10/02/98	EY
Carbon Tetrachloride	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Chlorobenzene	SW-846, 8260	<0.05	mg/L	100	10/02/98	EY
Chloroform	SW-846, 8260	<0.05	mg/L	6.0	10/02/98	EY
1,2-Dichloroethane	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
1,1-Dichloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Tetrachloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Trichloroethene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Vinyl Chloride	SW-846, 8260	<0.1	mg/L	0.20	10/02/98	EY
ZERO HEADSPACE EXTRACTION	SW-846, 1311	09/29/98	DATE		09/29/98	TJ

Sample: 03A Transport Tank Collected: 09/17/98 11:25 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/28/98	DATE		09/28/98	TJ

Mail to TNRCC Remediation Division

TNRCC

Industrial &Hazardous Waste
Corrective Action
Closure/Remediation Notification Information Sheet

P.O. Box 13087 - Capitol Station
Austin TX 78711-3087

NAME OF OWNER / OPERATOR	
Mailing address	D C WELL SERVICE, INC.
Street	P O Box 1449
City / State / Zip	Denver City, TX 79323
CLOSURE / REMEDIATION	
Site address	3 miles west of Denver City on Hiway 83
Street or Location	
City	Denver City, TX 79323
County	Yoakum County
Site Solid Waste Registration #	N/A
Site EPA Identification #	N/A
Site I&HW Permit #	
OWNER / OPERATOR	D C WELL SERVICE, INC.
CONTACT NAME	Shane Harvey
PHONE #	(806) 592-2118
CONSULTANT	
CONTACT NAME	
PHONE #	
FORMER NAME(S) OF FACILITY	RELIABLE WELL SERVICE - prior to 7-1-69
RCRA REGULATED UNIT (Y/N)	
RISK STANDARD TO ATTAIN	
BRIEF DESCRIPTION	Transport tank, buried and used for storage of waste water accumulated in steaming and cleaning of oilfield equipment
SCHEDULE OF ACTIVITIES	Removal of tank, analyzing contents of tank, and soil surrounding tank. 9-15-98 to 9-22-98.

Contents tank removed by Chaney Custody 9-17-98

9-17-98 10:34

Jeffrey D. Beer TNRCC

MAXIM TECHNOLOGIES INC

1703 West Industrial P.O. Box 2150 * Midland, Texas 79701 * 915/683-3349 FAX 915/686-0492

Client Bud Butler
D.C. Well Service
4907 Foxboro Ct.
Midland, TX 79705

Customer No. 100640
Report No. MB-09-079
Report Date 10/07/98 09:19

Project Transport Tank

Phone: 915/570-7120 Fax:

Date Sampled 09/17/98

Sampled By Unknown

Sample Type Sulfas

Transported by Bud Butler

P.O. #

Date Received 09/22/98

Lab No.	Sample Identification
MB-09-079-01	Transport Tank
MB-09-079-02	Transport Tank
MB-09-079-03	Transport Tank

Our letters and reports are for the exclusive use of the client to whom they are addressed and shall not be reproduced except in full without the approval of the testing laboratory. The use of our name must receive our prior written approval. Our letters and reports apply only to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar samples.

CDK
Reviewed By

MAXIM
Shelly Stovall

TEST RESULTS BY SAMPLE

Sample: 02A DC-4,DC-5,DC-6 Collected: 09/22/98 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP ARSENIC	SW-846,7060A	<0.2	mg/L	0.2	10/05/98	DSR
TCLP BARIUM	SW-846,7080A	2.37	mg/L	0.01	10/05/98	DSR
TCLP CADMIUM	SW-846, 7130	<0.03	mg/L	0.03	10/05/98	DSR
TCLP CHROMIUM	SW-846, 7190	<0.02	mg/L	0.02	10/05/98	DSR
TCLP LEAD	SW-846, 7420	<0.3	mg/L	0.3	10/05/98	DSR
TCLP MERCURY	SW-846,7470A	0.002	mg/L	0.002	09/30/98	JBA
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/26/98	DATE		09/26/98	AR
TCLP SELENIUM	SW-846,7740A	<0.4	mg/L	0.4	10/05/98	JBA
TCLP SEMIVOLATILES GC/MS	SW-846, 8270					
Pyridine	SW-846, 8270	<0.05	mg/L	5.0	09/30/98	AK
1,4-Dichlorobenzene	SW-846, 8270	<0.05	mg/L	7.5	09/30/98	AK
2-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
3 and 4-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
Hexachloroethane	SW-846, 8270	< 0.05	mg/L	3.0	09/30/98	AK
Nitrobenzene	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
Hexachlorobutadiene	SW-846, 8270	< 0.05	mg/L	0.50	09/30/98	AK
2,4,6-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
2,4,5-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	400	09/30/98	AK
2,4-Dinitrotoluene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Hexachlorobenzene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Pentachlorophenol	SW-846, 8270	<0.25	mg/L	100	09/30/98	AK
TCLP SILVER	SW-846, 7760	<0.02	mg/L	0.02	10/02/98	JBA
TCLP VOLATILE ORGANICS	SW-846, 8260					
Benzene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
2-Butanone (MEK)	SW-846, 8260	<0.1	mg/L	200	10/02/98	EY
Carbon Tetrachloride	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Chlorobenzene	SW-846, 8260	<0.05	mg/L	100	10/02/98	EY
Chloroform	SW-846, 8260	<0.05	mg/L	6.0	10/02/98	EY
1,2-Dichloroethane	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
1,1-Dichloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Tetrachloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Trichloroethene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Vinyl Chloride	SW-846, 8260	<0.1	mg/L	0.20	10/02/98	EY
TOT.PET. HYDROCARBONS-SOIL	TNRCC 1005			50		
C6 - C10 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
>C10 - C28 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
C6 - C28 Total TPH Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
ZERO HEADSPACE EXTRACTION	SW-846, 1311	09/29/98	DATE		09/29/98	TJ

Report No. MB-09-078
10/07/98 15:42

TEST RESULTS BY SAMPLE

Client: D.C. Wall Service

Sample: G1A DC-1,DC-2,DC-3 Collected: 09/22/98 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP ARSENIC	SW-846,7060A	<0.2	mg/L	0.2	10/05/98	DSR
TCLP BARIUM	SW-846,7080A	1.60	mg/L	0.01	10/05/98	DSR
TCLP CADMIUM	SW-846, 7130	<0.03	mg/L	0.03	10/05/98	DSR
TCLP CHROMIUM	SW-846, 7190	<0.02	mg/L	0.02	10/05/98	DSR
TCLP LEAD	SW-846, 7420	<0.3	mg/L	0.3	10/05/98	DSR
TCLP MERCURY	SW-846,7470A	<0.002	mg/L	0.002	09/30/98	JBA
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/26/98	DATE		09/26/98	AR
TCLP SELENIUM	SW-846,7740A	<0.4	mg/L	0.4	10/05/98	DSR
TCLP SEMIVOLATILES GC/MS	SW-846, 8270					
Pyridine	SW-846, 8270	<0.05	mg/L	5.0	09/30/98	AK
1,4-Dichlorobenzene	SW-846, 8270	< 0.05	mg/L	7.5	09/30/98	AK
2-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
3 and 4-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
Hexachloroethane	SW-846, 8270	< 0.05	mg/L	3.0	09/30/98	AK
Nitrobenzene	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
Hexachlorobutadiene	SW-846, 8270	< 0.05	mg/L	0.50	09/30/98	AK
2,4,6-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
2,4,5-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	400	09/30/98	AK
2,4-Dinitrotoluene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Hexachlorobenzene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Pentachlorophenol	SW-846, 8270	<0.25	mg/L	100	09/30/98	AK
TCLP SILVER	SW-846, 7760	<0.02	mg/L	0.02	10/02/98	JBA
TCLP VOLATILE ORGANICS	SW-846, 8260					
Benzene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
2-Butanone (MEK)	SW-846, 8260	< 0.1	mg/L	200	10/02/98	EY
Carbon Tetrachloride	SW-846, 8260	< 0.05	mg/L	0.50	10/02/98	EY
Chlorobenzene	SW-846, 8260	< 0.05	mg/L	100	10/02/98	EY
Chloroform	SW-846, 8260	< 0.05	mg/L	6.0	10/02/98	EY
1,2-Dichloroethane	SW-846, 8260	< 0.05	mg/L	0.50	10/02/98	EY
1,1-Dichloroethene	SW-846, 8260	< 0.05	mg/L	0.70	10/02/98	EY
Tetrachloroethene	SW-846, 8260	< 0.05	mg/L	0.70	10/02/98	EY
Trichloroethene	SW-846, 8260	< 0.05	mg/L	0.50	10/02/98	EY
Vinyl Chloride	SW-846, 8260	< 0.1	mg/L	0.20	10/02/98	EY
TOT.PET. HYDROCARBONS-SOIL	TNRCC 1005			50		
C6 - C10 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
>C10 - C28 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
C6 - C28 Total TPH Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
ZERO HEADSPACE EXTRACTION	SW-846, 1311	09/29/98	DATE		09/29/98	TJ

MAXIM TECHNOLOGIES INC

1703 West Industrial P.O. Box 2150 * Midland, Texas 79701 * 915/683-3369 FAX 915/686-0492

Client Bud Butler
D.C. Well Service
4907 Foxboro Ct.
Midland, TX 79705

Customer No. 100640
Report No. MB-09-078
Report Date 10/07/98 15:42

Project DC-1,2,3,4,5,6

Phone: 915/570-7120 Fax:

Date Sampled 09/22/98

Sampled By Bud Butler

Sample Type Soil

Transported by Bud Butler

P.O. #

Date Received 09/22/98

Lab No.	Sample Identification
MB-09-078-01	DC-1,DC-2,DC-3
MB-09-078-02	DC-4,DC-5,DC-6

Our letters and reports are for the exclusive use of the client to whom they are addressed and shall not be reproduced except in full without the approval of the testing laboratory. The use of our name must receive our prior written approval. Our letters and reports apply only to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar samples.

Reviewed By

MAXIM

Analysis Request and Chain of Custody Record

Page _____ of _____

MAXIM TECHNOLOGIES INC

☐ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☑ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no.

Client/Project: DC Well Service - Roy Hervey - Denver City

P.O.#

Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Matl)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
DC-1	9/28/98 1140	X		4 oz	Soil	–	TPH 8015 TCLP VOCs - Semi + metals TCLP	
DC-2	9/28 1141	X		4 oz	Soil	–	Composite 1, 2, 3	
DC-3	9/28 1142	X		4 oz	Soil	–		
DC-4	9/28 1220	X		4 oz	Soil	–	TPH 8015 - VOCs + Semivol Metals	
DC-5	9/28 1221	X		4 oz	Soil	–	composite 4, 5, 6	
DC-6	9/28 1222	X		4 oz	Soil	–		

Samplers: (Print)
Bud Butler
Affiliation

Relinquished by: (Signature) Bud Butler — Date: 9/28/98 Time: 1534
Relinquished by: (Signature) — Date: Time:
Relinquished by: (Signature) — Date: Time:

Received by: (Signature) — Date: Time:
Received by: (Signature) — Date: Time:
Received by: (Signature) — Date: 9-29-98 Time: 15:34

COC Seal No.
REC'D. ON ICE Yes ____ No ____
Intact

Results by _____
Rush Charges Authorized
Yes ____ No ____

REMARKS:

Data Results To:
1. Bud Butler 4907 Foxboro Ct Midland, TX 79705 570 7120, 638-4541
2. 552-0070, 366-0218

Laboratory No.

10/07/98 15:42 **TEST RESULTS BY SAMPLE**

Client: D.C. Well Service

Sample: 02A DC-4,DC-5,DC-6 Collected: 09/22/98 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP ARSENIC	SW-846,7060A	<0.2	mg/L	0.2	10/05/98	DSR
TCLP BARIUM	SW-846,7080A	2.37	mg/L	0.01	10/05/98	DSR
TCLP CADMIUM	SW-846, 7130	<0.03	mg/L	0.03	10/05/98	DSR
TCLP CHROMIUM	SW-846, 7190	<0.02	mg/L	0.02	10/05/98	DSR
TCLP LEAD	SW-846, 7420	<0.3	mg/L	0.3	10/05/98	DSR
TCLP MERCURY	SW-846,7470A	0.002	mg/L	0.002	09/30/98	JBA
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/26/98	DATE		09/26/98	AR
TCLP SELENIUM	SW-846,7740A	<0.4	mg/L	0.4	10/05/98	JBA
TCLP SEMIVOLATILES GC/MS	SW-846, 8270					
Pyridine	SW-846, 8270	<0.05	mg/L	5.0	09/30/98	AK
1,4-Dichlorobenzene	SW-846, 8270	<0.05	mg/L	7.5	09/30/98	AK
2-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
3 and 4-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
Hexachloroethane	SW-846, 8270	< 0.05	mg/L	3.0	09/30/98	AK
Nitrobenzene	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
Hexachlorobutadiene	SW-846, 8270	< 0.05	mg/L	0.50	09/30/98	AK
2,4,6-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
2,4,5-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	400	09/30/98	AK
2,4-Dinitrotoluene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Hexachlorobenzene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Pentachlorophenol	SW-846, 8270	<0.25	mg/L	100	09/30/98	AK
TCLP SILVER	SW-846, 7760	<0.02	mg/L	0.02	10/02/98	JBA
TCLP VOLATILE ORGANICS	SW-846, 8260					
Benzene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
2-Butanone (MEK)	SW-846, 8260	<0.1	mg/L	200	10/02/98	EY
Carbon Tetrachloride	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Chlorobenzene	SW-846, 8260	<0.05	mg/L	100	10/02/98	EY
Chloroform	SW-846, 8260	<0.05	mg/L	6.0	10/02/98	EY
1,2-Dichloroethane	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
1,1-Dichloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Tetrachloroethene	SW-846, 8260	<0.05	mg/L	0.70	10/02/98	EY
Trichloroethene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
Vinyl Chloride	SW-846, 8260	<0.1	mg/L	0.20	10/02/98	EY
TOT.PET. HYDROCARBONS-SOIL	TNRCC 1005			50		
C6 - C10 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
>C10 - C28 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
C6 - C28 Total TPH Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
ZERO HEADSPACE EXTRACTION	SW-846, 1311	09/29/98	DATE		09/29/98	TJ

TEST RESULTS BY SAMPLE

Client: D.C. Well Service

Sample: 01A DC-1,DC-2,DC-3 Collected: 09/22/98 Category: S

Test Name	Method	Result	Units	Detection Limit	Date Analyzed	Analyst
TCLP ARSENIC	SW-846,7060A	<0.2	mg/L	0.2	10/05/98	DSR
TCLP BARIUM	SW-846,7080A	1.60	mg/L	0.01	10/05/98	DSR
TCLP CADMIUM	SW-846, 7130	<0.03	mg/L	0.03	10/05/98	DSR
TCLP CHROMIUM	SW-846, 7190	<0.02	mg/L	0.02	10/05/98	DSR
TCLP LEAD	SW-846, 7420	<0.3	mg/L	0.3	10/05/98	DSR
TCLP MERCURY	SW-846,7470A	<0.002	mg/L	0.002	09/30/98	JBA
TCLP PREPARATION - SOLIDS	SW-846, 1311	09/26/98	DATE		09/26/98	AR
TCLP SELENIUM	SW-846,7740A	<0.4	mg/L	0.4	10/05/98	DSR
TCLP SEMIVOLATILES GC/MS	SW-846, 8270					
Pyridine	SW-846, 8270	<0.05	mg/L	5.0	09/30/98	AK
1,4-Dichlorobenzene	SW-846, 8270	< 0.05	mg/L	7.5	09/30/98	AK
2-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
3 and 4-Methylphenol	SW-846, 8270	< 0.05	mg/L	200	09/30/98	AK
Hexachloroethane	SW-846, 8270	< 0.05	mg/L	3.0	09/30/98	AK
Nitrobenzene	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
Hexachlorobutadiene	SW-846, 8270	< 0.05	mg/L	0.50	09/30/98	AK
2,4,6-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	2.0	09/30/98	AK
2,4,5-Trichlorophenol	SW-846, 8270	< 0.05	mg/L	400	09/30/98	AK
2,4-Dinitrotoluene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Hexachlorobenzene	SW-846, 8270	< 0.05	mg/L	0.13	09/30/98	AK
Pentachlorophenol	SW-846, 8270	<0.25	mg/L	100	09/30/98	AK
TCLP SILVER	SW-846, 7760	<0.02	mg/L	0.02	10/02/98	JBA
TCLP VOLATILE ORGANICS	SW-846, 8260					
Benzene	SW-846, 8260	<0.05	mg/L	0.50	10/02/98	EY
2-Butanone (MEK)	SW-846, 8260	< 0.1	mg/L	200	10/02/98	EY
Carbon Tetrachloride	SW-846, 8260	< 0.05	mg/L	0.50	10/02/98	EY
Chlorobenzene	SW-846, 8260	< 0.05	mg/L	100	10/02/98	EY
Chloroform	SW-846, 8260	< 0.05	mg/L	6.0	10/02/98	EY
1,2-Dichloroethane	SW-846, 8260	< 0.05	mg/L	0.50	10/02/98	EY
1,1-Dichloroethene	SW-846, 8260	< 0.05	mg/L	0.70	10/02/98	EY
Tetrachloroethene	SW-846, 8260	< 0.05	mg/L	0.70	10/02/98	EY
Trichloroethene	SW-846, 8260	< 0.05	mg/L	0.50	10/02/98	EY
Vinyl Chloride	SW-846, 8260	< 0.1	mg/L	0.20	10/02/98	EY
TOT.PET. HYDROCARBONS-SOIL	TNRCC 1005			50		
C6 - C10 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
>C10 - C28 Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
C6 - C28 Total TPH Range	TNRCC 1005	<30	mg/kg		10/02/98	JH
ZERO HEADSPACE EXTRACTION	SW-846, 1311	09/29/98	DATE		09/29/98	TJ

995078

Analysis Request and Chain of Custody Record

Page _____ of _____

MAXIM TECHNOLOGIES INC

☐ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☑ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Project no.

Client/Project: D.C Well Service - Roy Harvey - Denver City

P.O.#

Lab ID No.	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
	DC-1	9/28/98 1140	X		4 oz	Soil	–	TPH-1005 TCLP → Vols - Semi + metals TCLP	
	DC-2	9/28 - 1141	1		4 oz	Soil	–	Composite 1, 2, 3	
	DC-3	9/28 1142	X		4 oz	Soil	–		
	DC-4	9/28 1220	X		4 oz	Soil	–	TPH 1005 - Vols + Semi + metals	
	DC-5	9/28 1221	X		4 oz	Soil	–	composite 4, 5, 6	
	DC-6	9/28 12:22	X		4 oz	Soil	–		

Samplers: *(Print)*
Bud Butler

Affiliation

Relinquished by: *(Signature)* Bud Butler — Date: 9/22/98 Time: 1534

Relinquished by: *(Signature)* — Date: Time:

Relinquished by: *(Signature)* — Date: Time:

Received by: *(Signature)* — Date: Time:

Received by: *(Signature)* — Date: Time:

Received by Laboratory: *(Signature)* Kelly Street — Date: 9-22-98 Time: 15:34

COC Seal No.

REC'D. ON ICE Yes _____ No _____

Intact:

Laboratory No.

Results by _____

Rush Charges Authorized

Yes _____ No _____

REMARKS:

Data Results To:
Bud Butler
1. 4907 Foxboro Ct
Midland, TX 79705
2. 570 7120, 638-4541
552-0070, 366-0218

FAX

Date 10/02/98

Number of pages including cover sheet 1

TO: Roy Harvey
D.C. Well Service
Denver City, Texas

Phone 806 592-2328
Fax Phone 806 592-8859

FROM: Gale Holliman
3-D Consultant
#5 West Industrial Circle
Odessa, Texas

Phone 915 333-3099
Fax Phone 915 333-3357

CC: Employees D.C. Well Service

REMARKS: ☐ Urgent ☒ For your review ☐ Reply ASAP ☐ Please Comment

DEAR Mr. Harvey;

3- D Consultant is please to announce the possible sale of D.C. Well Service in its entirety.

Although there are no assurances or guarantees, 3-D feels confident that the sale should be closed by the 15th of October,1998.

This depends on several things. First, the environmental issue. Without the analytical results, we cannot go to the next step. The results of the tests could be known as early as October 6,1998. As you well know, no company will purchase real estate unless there has been an Environmental Site Assessment completed and a clean bill of health given.

Next, there will be a letter of intent from the potential client, followed by an inspection of the premises and inventory, and then set a closing date.

3-D Consultant cannot speak for the new owners but after several conversations, 3-D feels confident that they (the Client) will remain in Denver City and continue business as usual. We believe that because of the "hand" shortage, everyone employed at D.C. Well Service doing satisfactory work will remain. **WORK AS USUAL**

If there are any further questions please feel free to contact 3D- Consultant

Sincerely,

Gale Holliman

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
CONTROLLED RECOVERY, INC.
ATTN: BILLIE CHARO
P.O. BOX 388
HOBBS, NM 88240
FAX TO:

Receiving Date: 11/04/98
Reporting Date: 11/06/98
Project Number: NOT GIVEN
Project Name: DC WELL SER
Project Location: DENVER CITY, TX

Sampling Date: 11/04/98
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: AH/BC

LAB NO.	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		11/05/98	11/05/98	11/05/98	11/06/98
H3916-1	#1	Not reactive	Not reactive	8.15	nonflammable
Quality Control		NR	NR	6.94	NR
True Value QC		NR	NR	7.00	NR
% Recovery		NR	NR	99.1	NR
Relative Percent Difference		NR	NR	0.1	NR

METHOD: EPA SW 846-7.3, 7.2, 1030(proposed), 1311, *40 CFR 261*

Chemist

11/6/98
Date

H3916-1.XLS

PLEASE NOTE: **Liability and Damages.** **Cardinal's** liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

Page ____ of ____

Company Name: CRI	BILL TO PO #:
Project Manager: Billie Chavo	Company:
Address: Box 388	Attn:
City: Hobbs NM State: Zip: 88240	Address:
Phone #: 393-1079	City:
Fax #:	State: Zip:
Project #: Project Owner:	Phone #:
Project Name: DC Well Ser	Fax #:
Project Location: Denver City TX	

ANALYSIS REQUEST

RCI

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H3916-1	1					X							11-4-98	10:00 am

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 11-4-98	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time: 1:20 p.m.		Fax Result: ☐ Yes ☐ No
Relinquished By:	Date: 11/4/98	Received By: (Lab Staff)	REMARKS:
	Time: 1:20		
Delivered By: (Circle One)	Sample Condition: Cool ☑ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:			

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

F A C S I M I L E

To: Martyne Keiling

Of: OCD

Fax: (505)827-8177

Phone: (505)827-7153

Pages: 2 including this cover sheet.

Date: November 17, 1998

Memo: If you have any questions or if I can be of further assistance, please feel free to give me a call at the office. Thanks.

Have a Nice Day!

From the desk of...

Billie Charo
Controlled Recovery, Inc.
Phone: (505)393-1079 Fax: (505)393-3615
P.O. Box 388
Hobbs, New Mexico 88241

HWGEN
DC Well Service

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

TNRCC

ONE-TIME SHIPMENT REQUEST FOR TEXAS WASTE CODE FOR SHIPMENT OF CLASS 1, 2, 3 AND EPA HAZARDOUS WASTE

Pursuant to the generator notification requirements of 30 TAC Section 335.6, the generator of a solid waste is required to submit to the TNRCC detailed written information pertaining to the composition and characteristics of the waste. Please complete all applicable sections. Incomplete forms will delay processing. Assigned waste codes cannot be changed without prior approval from the TNRCC.

Please type or print legibly:

Bud Butler
DC Well Service
P.O. Box 1449
Denver City, Texas 79323

GENERATOR CONTACT PERSON
GENERATOR COMPANY NAME
GENERATOR MAILING ADDRESS
CITY, STATE, ZIP CODE
PHONE NO. (806) 592-2118
FAX NO. (915)687-0741

COMPLETE ONLY IF NOT REGISTERED

Are you industrial? ☐ Yes ☐ No

If industrial, have you submitted TNRCC Initial Notification form (TNRCC-0002)? ☐ Yes ☐ No

Date submitted _____

COMPLETE ONLY IF REGISTERED

XXX02
Solid Waste Registration No.

U. S. EPA Identification No.

Generating Site Location (☐ Check if same as above) 3 miles east of Denver City, Texas Yoakum County
(STREET ADDRESS OR PHYSICAL DESCRIPTION)

Designated Treatment, Storage, and/or Disposal Facility Name and Address: Controlled Recovery, Inc.
P.O. Box 388 Hobbs, NM 88241

DESCRIPTION OF WASTE
(do not use DOT description or trade name)

1. sump waste generated by washing tools
2. _____
3. _____
4. _____

TNRCC USE ONLY

For TNRCC Assignment of Texas Waste Code Number: DW7Z6091

TEXAS WASTE CODES

(1) FORM CODE	(2) CLASS CODE	(3) EPA CODE	(4) ORIGIN CODE
609	1		3

PROCESSED DATE: 11-13-98
PROCESSED BY: FD
TNRCC REGION: 2 OFFICE

GENERATOR/REPRESENTATIVE

I certify that the above information is correct to the best of my knowledge

I, Bubba Butler, am employed by:
(NAME, PLEASE PRINT)

(COMPANY NAME AND MAILING ADDRESS)

DC Well Service
P.O. Box 1449
Denver City, Texas 79323

I am authorized to sign this certification for:

DC Well Service
(COMPANY NAME)

Bud Butler
(SIGNATURE)

11-3-98
(DATE)

(806) 592-2118
(PHONE NUMBER)

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

RECEIVED
NOV 1 1 1998
Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Snyder Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Fluid Transport
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 3503 23rd Street	Snyder, Texas

9. Circle One:

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

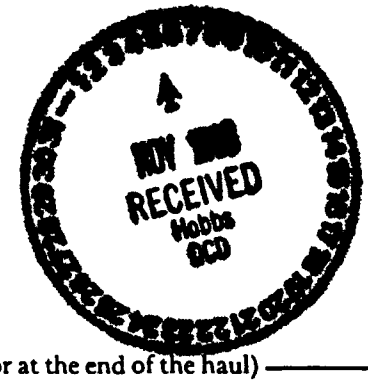
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Snyder facilility's sump sludge and waste water. This material is has been approved in the past. I have included a certificate of waste, a Texas waste code, and a chain of custody.

11-001



Estimated Volume 330 gallons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 11/03/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: Chris Williams TITLE: DISTRICT 1 SUPERVISOR DATE: 11/4/98

APPROVED BY: Maryann Kilfy TITLE: Env Geologist DATE: 11/10/98

RECEIVED
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR WEATHERFORD INT.

ADDRESS 3505 23RD ST. SNYDER TX 79549

GENERATING SITE 3505 23RD ST. SNYDER TX 79549

COUNTY SCURRY STATE TEXAS

TYPE OF WASTE SUMP SLUDGE AND WASTE WATER

ESTIMATED VOLUME 330 gal. / 6 BBLS.

GENERATING PROCESS STEAM CLEANING OF OIL FIELD TOOLS

REMARKS WASTE IS FROM SUMPS @ SNYDER FACILITY

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY FLUID TRANSPORTS (915) 573-5421

RECEIVED NOV 1998 Hobbs OCD

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT _____
SIGNATURE

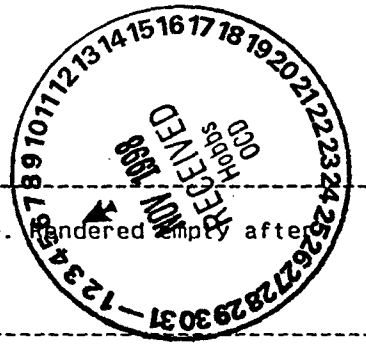
NAME KELLEY SYLER
PRINTED

ADDRESS 3505 23RD ST.
SNYDER TX. 79549

DATE NOVEMBER 3, 1998

0134 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
***** Active Wastes ******						



30163081 1 Active 08/05/94 Off No No
Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

30174061 1 Active 08/05/94 Off No
Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

30182961 1 Active 08/05/94 Off No
Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

30196951 1 Active 09/18/95 Off No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed &I sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge

30203071 1 Active 08/05/94 Off No
Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

30219022 2 Active 08/05/94 Off No
Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

84256

Page ____ of ____

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 499

Company Name: LP Environmental
Phone #: (915) 522-2133
Address: 1031 Andrews Hwy Ste 207
Fax #: (915) 522-2180
Contact Person: Robbie Walker
Invoice to: (If different from above) Weatherford Enterra Inc 2200 Ave R Snyder TX 79549-1948 Attn: Kelly
Project #: 101-007
Project Name: maint
Project Location: Snyder
Sampler Signature: Robbie Walker

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
84256	SS-1	1	32oz				X				X	10/29	7:45am

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
		X			X	X	X	X							

RECEIVED NOV 1997 Hobbs OCD

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	10/29/97	2:30 PM	Helen Shelton	10/29/97	2:30 PM
Helen Shelton	10/29/97	6:15PM			
			Received at Laboratory by:	Date:	Time:
			Vicki Wadham	10/30/97	9:20AM

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 3 °
Log-In Review B

REMARKS: Sent to TEL 10/31

303AD

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 11, 1997
Receiving Date: 10/30/97
Sample Type: Sludge
Project No: 101-007
Project Location: Snyder, TX

Extraction Date: 11/05/97
Analysis Date: 11/05/97
Sampling Date: 10/29/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	--	500	250	--	<2 >12.5	--
T84256	SS-1	Non-reactive	20	5.0	Non-corrosive	10.5	Nonignitable
QC	Quality Control	--	--	--	--	7.0	--
RPD		0	0	0	0	0	0
% Extraction Accuracy		--	--	--	--	--	--
% Instrument Accuracy		--	--	--	--	100	--

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1.
CHEMIST: JG

RECEIVED NOV 1997 Hobbs OCD

Director, Dr. Blair Leftwich

11-11-97
DATE

NOV-11-97 12:52P
P.01

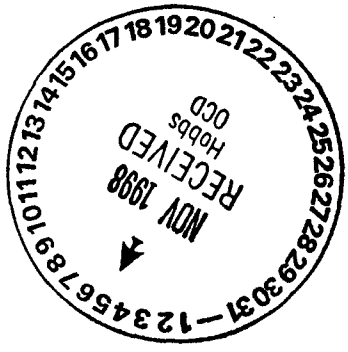
6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Oct 31, 1997
Date Rec: 10/30/97
Project: 101-007
Proj Name: Maint.
Proj Loc: Snyder, Tx.

Lab Receiving # : 9710000499
Sampling Date: 10/29/97
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
T84256	SS-1	Sludge	134,000
	Method Blank		<0.500
	Reporting Limit		10
	QC		104



RPD	2
% Extraction Accuracy	3.306
% Instrument Accuracy	104

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPHC	EPA 3550	10/30/97	EPA 418.1	10/31/97	MS	100	8.5

Director, Dr. Blair Leftwich

10-31-97
Date

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 11, 1997
Receiving Date: 10/30/97
Sample Type: Sludge
Project No: 101-007
Project Location: Snyder, TX

Extraction Date: 11/04/97
Analysis Date: 11/05/97
Sampling Date: 10/29/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T84256	SS-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.01	<0.20	<0.01
QC	Quality Control	4.7	4.8	5.0	4.9	4.8	0.95	4.8	0.05
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.01	0.20	0.01
RPD		2	1	0	0	0	13	1	5
% Extraction Accuracy		85	100	85	85	85	110	90	88
% Instrument Accuracy		93	96	100	97	95	95	96	100

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: JT
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.5 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich

11-11-97
Date

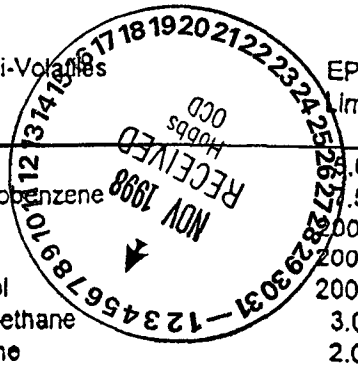
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6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 11, 1997
Receiving Date: 10/30/97
Sample Type: Sludge
Project No: 101-007
Project Location: Snyder, TX

Extraction Date: 11/03/97
Analysis Date: 11/06/97
Sampling Date: 10/29/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.



TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T84256 SS-1	QC	RPD	%EA	%iA
Pyridine	5.0	0.05	ND	73	*200	1	91
1,4-Dichlorobenzene	7.5	0.05	ND	72	6	32	90
o-Cresol	200.0	0.05	0.05	85	12	75	106
m,p-Cresol	200.0	0.05	0.35	89	9	59	111
Total Cresol	200.0	0.05	ND	---	---	---	---
Hexachloroethane	3.0	0.05	ND	93	10	24	115
Nitrobenzene	2.0	0.05	ND	89	13	42	111
Hexachlorobutadiene	0.5	0.05	ND	75	20	23	94
2,4,6-Trichlorophenol	2.0	0.05	ND	82	16	43	103
2,4,5-Trichlorophenol	400.0	0.05	ND	75	14	42	94
2,4-Dinitrotoluene	0.13	0.05	ND	94	4	41	118
2,4-D	10.0	0.05	ND	64	6	76	80
Hexachlorobenzene	0.13	0.05	ND	86	17	44	108
2,4,5-TP	1.0	0.05	ND	89	5	116	111
Pentachlorophenol	100.0	0.05	ND	91	5	36	114

*NOTE: RPD out of limits.
**NOTE: Surrogate recovery out of standard range.

ND - Not Detected

Surrogates	% RECOVERY
2-Fluorophenol	**13
Phenol-d6	41
Nitrobenzene-d5	54
2-Fluorobiphenyl	59
2,4,6-Tribromophenol	66
Terphenyl-d14	104

Methods: EPA SW 846-1311, 8270
CHEMIST: RP/HW

Director, Dr. Blair Leftwich

11-11-97
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Ste. 207
Midland, TX 79701



November 11, 1997
Receiving Date: 10/30/97
Sample Type: Sludge
Project No: 101-007
Project Location: Snyder, TX

Extraction Date: 11/03/97
Analysis Date: 11/04/97
Sampling Date: 10/29/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maint.

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T84256 SS-1	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	0.115	14	83	115
1,1-Dichloroethene	0.70	0.05	ND	0.104	13	94	104
Methyl Ethyl Ketone	200.0	0.5	ND	0.104	15	82	104
Chloroform	6.00	0.05	ND	0.097	13	100	97
1,2-Dichloroethane	0.50	0.05	ND	0.100	16	101	100
Benzene	0.50	0.05	ND	0.103	10	100	103
Carbon Tetrachloride	0.50	0.05	ND	0.110	9	115	110
Trichloroethene	0.50	0.05	ND	0.102	9	101	102
Tetrachloroethene	0.70	0.05	ND	0.101	11	101	101
Chlorobenzene	100.00	0.05	ND	0.100	13	99	100
1,4-Dichlorobenzene	7.50	0.05	ND	0.101	14	98	101

SURROGATES	% Recovery
Dibromofluoromethane	92
Toluene-d8	95
4-Bromofluorobenzene	92

ND = NOT DETECTED

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RW

Director, Dr. Blair Leftwich

11-11-97
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

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

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

RECEIVED
NOV 06 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford Enterra
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Denver City Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) HWY 214 North	Denver City, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Denver City's sludge and waste water. This material has been approved in the past. I have included a certificate of waste, a Texas waste code, and a chain of custody.

10-006

Estimated Volume 80 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 10/28/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyn J. Kitz TITLE: Environmental Geologist DATE: 11-9-98


1998
Received
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford EnTerra, INC.

ADDRESS Highway 214 North Denver City, TX 79323

GENERATING SITE Highway 214 North Denver City

COUNTY Yoakum STATE Texas

TYPE OF WASTE Sludge & waste water

ESTIMATED VOLUME 80 BBL (3360 gallons)

GENERATING PROCESS Steam Cleaning oil Field Tools

REMARKS This waste is From The Denver City Facility

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY

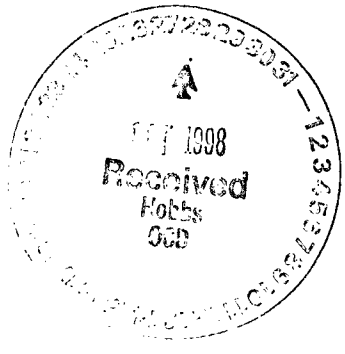
As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Gerald C. Segars
SIGNATURE

NAME Gerald C. Segars
PRINTED

ADDRESS P.O. Box 1386 - Denver City, Texas 79323
Highway 214 North

DATE 10-28-98


1998
Received
Hobbs
OCD

*** TEXAS NATURAL RESOURCE CONSERVATION COMMISSION ***
Notice of Registration
Industrial and Hazardous Waste

39109 Oilfield Rentals

Solid Waste Registration Number: 39109 EPA Id: TXD987982782

Company Name: Oilfield Rentals
Site Name: Datco
Site Location: Highway 214, North of, Denver City, TX
Contact: Todd, L.C.

Region: 2
County: 251 Yoakum
Title:

Initial Registration Date: 08/01/1989
Last Amendment Date: 11/03/1994
Last Date NOR Computer update: 02/22/1996
Phone: 806-592-2550

Mailing Address: P.O. Box 1386
Denver City, TX 79323-1386

Site Street Address: Highway 214
North of
Denver City, TX

Registration Status: Inactive HW Permit #:
Registration Type: Generator
Generator Type:

Hazardous Waste Generation Status: Large Quantity Generator

Primary SIC Code: 1389 Oil & Gas Field Services, Not Elsewhere Found
Handler Status:

Operator Information
Name:
Address:

Owner Information
Name:
Address:

As of 11/03/1994 - the next unassigned sequence number for WASTES is 0001 and
the next unassigned sequence number for UNITS is 003.

39109 Oilfield Rentals

**** UNITS AT THIS SITE MANAGING WASTE ****

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
** 'Active' & 'Closure Pending' Units **								
001	Tank (Surface)	Active	03/01/89	/ NA	NA	NA	RCRA Pmt Exempt - Accumulation Time	NA /

Description from Company: Oilfield fishing tool washing waste
Capacity: 6300.0000 Capacity Unit of Measure: G
System Types: 141 Storage
Biennial System Regulatory Status: Regulatory status unknown
Wastes Currently Managed in Unit:
Wastes Previously Managed in Unit: 909760 940080

002	Sump	Active	01/01/81	/ NA	NA	NA	RCRA Pmt Exempt - Accumulation Time	NA /

Description from Company: Washdown sump
Capacity: 100.0000 Capacity Unit of Measure: G
System Types: 141 Storage
Biennial System Regulatory Status: Regulatory status unknown
Wastes Currently Managed in Unit:
Wastes Previously Managed in Unit: 909760 940080

As of 11/03/1994, the next unassigned sequence number for UNITS is 003.

raceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #_____

y Name: LP Environmental Phone #:

: 110 W Andrews Hwy Ste 107 Fax #:

l Person:

to:
ent from above)

#: Project Name:

Location: Sipsey City Sampler Signature:

I # USE LY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
	SC S-1	1	2				X				X	10/22	10:45

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH					Turn Around Time if ___ rent from standard	Hold
		X			X	X	X												

quished by:	Date:	Time:	Received by:	Date:	Time:
Elder. Walker	10/22	6:05	Helen Helton	10/22/97	6:05 PM
quished by:	Date:	Time:	Received by:	Date:	Time:
quished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp °
Log-in Review

REMARKS:

bmittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

Carrier #

OCT-28-98 WED 3:32 PM WEATHERFORD ENTERRA, AL FAX NO. 806 592 2428 P. 2

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 12, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WEA 112-0000
Project Location: Denver City, TX

Extraction Date: 10/23/97
Analysis Date: 10/28/97
Sampling Date: 10/22/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T83945	DCS-1	0.2	<0.10	0.06	0.07	0.2	<0.01	0.7	<0.01
QC	Quality Control	4.9	4.7	5.0	4.9	4.6	0.95	5.0	0.049
Reporting Limit		0.10	0.10	0.05	0.05	0.10	0.01	0.20	0.01
RPD		1	1	1	0	0	14	0	0
% Extraction Accuracy		92	80	84	85	82	84	87	94
% Instrument Accuracy		98	94	100	98	95	95	100	98

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: HC
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 4.0 mg/L As; 2.0 mg/L Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

BB
Director, Dr. Blair Leftwich

11-12-97
Date

OCT-28-98 WED 3:33 PM WEATHERFORD ENTERRA, AL FAX NO. 806 592 2428 P. 3
NOV-12-97 03:41P

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 12, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WEA 112-0000
Project Location: Denver City, TX

Extraction Date: 10/23/97
Analysis Date: 10/24/97
Sampling Date: 10/22/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maint.

TA#	FIELD CODE	TRPHC (mg/kg)
T83945	DCS-1	52,000
QC	Quality Control	99
RPD		10
RPD		4
% Extraction Accuracy		90
% Instrument Accuracy		99

METHODS: EPA SW 846-3550; EPA 418.1.
CHEMIST: MS
TRPHC SPIKE: 250 mg/kg TRPHC.
TRPHC QC: 100 mg/L TRPHC.

Director, Dr. Blair Leftwich

11-12-97
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 11, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WEA 112-0000
Project Location: Denver City, TX

Extraction Date: 10/30/97
Analysis Date: 11/06/97
Sampling Date: 10/22/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T83945 DCS-1	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	73	*200	6	91
1,4-Dichlorobenzene	7.5	0.05	ND	72	17	50	90
o-Cresol	200.0	0.05	0.07	85	13	65	108
m,p-Cresol	200.0	0.05	0.06	89	12	55	111
Total Cresol	200.0	0.05	ND	---	---	---	---
Hexachloroethane	3.0	0.05	ND	93	19	38	116
Nitrobenzene	2.0	0.05	ND	88	16	42	111
Hexachlorobutadiene	0.5	0.05	ND	75	17	32	94
2,4,6-Trichlorophenol	2.0	0.05	ND	82	16	38	103
2,4,5-Trichlorophenol	400.0	0.05	ND	75	10	62	94
2,4-Dinitrotoluene	0.13	0.05	ND	94	1	45	118
2,4-D	10.0	0.05	ND	64	11	15	80
Hexachlorobenzene	0.13	0.05	ND	86	0	44	108
2,4,5-TP	1.0	0.05	ND	89	14	28	111
Pentachlorophenol	100.0	0.05	ND	91	9	50	114

*NOTE: RPD Out of Limits.
**NOTE: Surrogate recovery out of standard range.

ND - Not Detected

Surrogates	% RECOVERY
2-Fluorophenol	**8
Phenol-d6	28
Nitrobenzene-d5	39
2-Fluorobiphenyl	38
2,4,6-Tribromophenol	**30
Terphenyl-d14	73

Methods: EPA SW 846-1311, 8270.
CHEMIST: RP/HW

Director, Dr. Blair Leftwich

11-11-97
DATE

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Lubbock, Texas 79424
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ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 12, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WEA 112-0000
Project Location: Denver City, TX

Extraction Date: 10/28/97
Analysis Date: 10/29/97
Sampling Date: 10/22/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maint.

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T83945 DCS-1	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	0.105	8	85	105
1,1-Dichloroethene	0.70	0.05	ND	0.101	9	95	101
Methyl Ethyl Ketone	200.0	0.5	ND	0.093	1	103	93
Chloroform	6.00	0.05	ND	0.104	3	106	104
1,2-Dichloroethane	0.50	0.05	ND	0.112	7	111	112
Benzene	0.50	0.05	ND	0.100	5	101	100
Carbon Tetrachloride	0.50	0.05	ND	0.118	8	104	118
Trichloroethene	0.50	0.05	ND	0.098	5	102	98
Tetrachloroethene	0.70	0.05	ND	0.094	5	98	94
Chlorobenzene	100.00	0.05	ND	0.098	4	97	98
1,4-Dichlorobenzene	7.50	0.05	ND	0.100	4	98	100

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	93
4-Bromofluorobenzene	92

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RW

Director, Dr. Blair Leftwich

11-12-97
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 12, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WES 112-0000
Project Location: Denver City, TX

Extraction Date: 10/29/97
Analysis Date: 10/29/97
Sampling Date: 10/22/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T83945	DCS-1	Non-reactive	96	1.5	Non-corrosive	7.4	Nonignitable
QC	Quality Control	—	—	—	—	7.0	—
	RPD	0	0	0	0	0	0
	% Extraction Accuracy	—	—	—	—	—	—
	% Instrument Accuracy	—	—	—	—	100	—

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1; EPA 376.1, 335.2.
CHEMIST: JG

Director, Dr. Blair Leftwich

11-12-97
DATE

OCT-28-98 WED 3:36 PM WEATHERFORD ENTERRA, AL FAX NO. 806 592 2428 P. 7

6701 Aberdeen Avenue
Lubbock Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL REPORT

CLIENT LP ENVIRONMENTAL
1031 ANDREWS HWY STE 207
MIDLAND, TX 79701

SAMPLE NO. : 7704054
INVOICE NO.: TE0106
REPORT DATE: 11-06-97
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Surrogate Information -	Percent Recovery	Range
Tetrachloro-m-Xylene	113.0	39-119
Decachlorobiphenyl	38.2	41-120

(1) Copy to Client

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL REPORT

CLIENT LP ENVIRONMENTAL
1031 ANDREWS HWY STE 207
MIDLAND, TX 79701

SAMPLE NO. : 7704054
INVOICE NO.: TE0106
REPORT DATE: 11-06-97
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : DCS-1
SAMPLE TYPE .....: Sludge
SAMPLED BY .....: R. Walker
SUBMITTED BY ....: H. Shelton
SAMPLE SOURCE ...: WEA 112-0000
ANALYST .....: K. Costa

AUTHORIZED BY : R. Walker
CLIENT P.O. : --
SAMPLE DATE ...: 10-22-97
SUBMITTAL DATE : 10-30-97
EXTRACTION DATE: 11-01-97
ANALYSIS DATE .: 11-03-97

TCLP Pesticides by EPA 8081A

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Heptachlor epoxide	<0.008	mg/L	0.008
Toxaphene	<0.5	mg/L	0.5

(1) Copy to Client

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time	Date
	~~1~~ 1:30	10-28

Originating Party	Other Parties
Billy Charro	Martyne Kieling

Subject

WeatherFord Intrac Denver City Supply Running over with Rain Water

Discussion

Verbal Approval Submit paperwork approved in the Past

Conclusions or Agreements

Distribution

Signed Martyn

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford Enterra
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Denver City Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) HWY 214 North	Denver City, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Denver City's sludge and waste water. This material has been approved in the past. I have included a certificate of waste, a Texas waste code, and a chain of custody.

10-006

Post-it® Fax Note 7671	Date 10-28-98	# of pages ▶ 1
To Billie Charo	From Martyne Kicling	
Co./Dept. CRI	Co. OCD	
Phone # 505 393 1079	Phone # 827-7153	
Fax # (505) 393-3615	Fax # 505 827 8177	

Estimated Volume 80 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 10/28/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne J Kicling TITLE: Env. Geologist DATE: 10-28-98

F A C S I M I L E

To: Martyne

Of: NMOCD

Fax: (505)827-8177

Phone: (505)827-7153

Pages: 13 including this cover sheet.

Date: October 28, 1998

Memo: Thank you so much for getting this approved so quickly. The original was dropped off at the Hobbs office this afternoon. If you have any questions or if I can be of further assistance, please feel free to give me a call at the office. Thanks.

Have a Nice Day!

From the desk of...

Billie Charo
Controlled Recovery, Inc.
Phone: (505)393-1079 Fax: (505)393-3615
P.O. Box 388
Hobbs, New Mexico 88241

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, INC.

ADDRESS Highway 214 North Denver City, TX 79323

GENERATING SITE Highway 214 North Denver city

COUNTY Yoakum STATE Texas

TYPE OF WASTE Sludge & waste water

ESTIMATED VOLUME 80 BBL (3360 gallons)

GENERATING PROCESS Steam Cleaning oil Field Tools

REMARKS This waste is From The Denver city Facility

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Gerald C. Segars
SIGNATURE

NAME Gerald C. Segars
PRINTED

ADDRESS P.O. Box 1386 - Denver City, Texas 79323
Highway 214 North

DATE 10-28-98

004
10/28/98 16:08 5053933615 CRI

39109 Oilfield Rentals

Solid Waste Registration Number: 39109 EPA Id: TXD987982782

Company Name: Oilfield Rentals
Site Name: Dotco
Site Location: Highway 214, North of, Denver City, TX
Contact: Todd, L.C.

Region: 2
County: 251 Yoakum
Title:

Initial Registration Date: 08/01/1989
Last Amendment Date: 11/03/1994
Last Date MOR Computer update: 02/22/1995
Phone: 806-592-2550

Mailing Address: P.O. Box 1386
Denver City, TX 79323-1386

Site Street Address: Highway 214
North of
Denver City, TX

Registration Status: Inactive IDW Permit #:
Registration Type: Generator
Generator Type:

Hazardous Waste Generation Status: Large Quantity Generator

Primary SIC Code: 1389 Oil & Gas Field Services, Not Elsewhere Found
Handler Status:

Operator Information
Name:
Address:

Owner Information
Name:
Address:

As of 11/03/1994 - the next unassigned sequence number for WASTES is 0001 and
the next unassigned sequence number for UNITS is 001.

39109 Oilfield Rentals

*** UNITS AT THIS SITE HANDLING WASTE ***

Unit Number	Unit Type	Unit Status	Date of Status	Classes of Waste Managed in Unit Onsite / Offsite	Unit Permit Number	Unit # on Permit	Regulatory Status	Deed Recording Needed/Date
** 'Active' & 'Closure Pending' Units **								
001	Tank (Surface)	Active	03/01/89	/ NA	NA	NA	RCRA Pmt Exempt - Accumulation Time	NA /
Description from Company: Oilfield fishing tool washing waste Capacity: 6300.0000 Capacity Unit of Measure: G System Types: 141 Storage Biennial System Regulatory Status: Regulatory status unknown Wastes Currently Managed in Unit: Wastes Previously Managed in Unit: 909760 940080								
002	Sump	Active	01/01/81	/ NA	NA	NA	RCRA Pmt Exempt - Accumulation Time	NA /
Description from Company: Washdown sump Capacity: 100.0000 Capacity Unit of Measure: G System Types: 141 Storage Biennial System Regulatory Status: Regulatory status unknown Wastes Currently Managed in Unit: Wastes Previously Managed in Unit: 909760 940080								

As of 11/03/1994, the next unassigned sequence number for UNITS is 003.

005 CRI 5053933615 10/28/98 16:08

raceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #_____

ny Name: LP Environmental Phone #: (915) 563-1800

: 1101 Andrews Hwy Stanton Fax #: (915) 523-2180

l Person: Robin Walker

lo: ent from above)

#: 98-0003 Project Name: Stanton

Location: Stanton (17) Sampler Signature: Robin Walker

I # USE) LY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
	SC 5-1	1	4oz				X				X	10/22	16:45

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
		X			X	X	X	X							

quished by: Date: Time:
Robin Walker 10/22 6:05

Received by: Date: Time:
Helen Shelton 10/22/17 6:05 PM

quished by: Date: Time:

Received by: Date: Time:

quished by: Date: Time:

Received at Laboratory by: Date: Time:

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp
Log-In Review

REMARKS:

10/28/98 16:09 ☎5053933615 CRI
OCT-28-98 WED 3:32 PM WEATHERFORD ENTERRA, AL FAX NO. 806 592 2428
P. 2 006

10/28/98 16:09 ☎5053933615 CRI
OCT-28-98 WED 3:33 PM WEATHERFORD ENTERRA, AL FAX NO. 806 592 2428
NOV-12-97 03:41P

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 12, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WEA 112-0000
Project Location: Denver City, TX

Extraction Date: 10/23/97
Analysis Date: 10/28/97
Sampling Date: 10/22/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TCLP METALS (mg/L)

TAT	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T83945	DCS-1	0.2	<0.10	0.06	0.07	0.2	<0.01	0.7	<0.01
QC	Quality Control	4.9	4.7	5.0	4.9	4.8	0.95	5.0	0.049
Reporting Limit		0.10	0.10	0.05	0.05	0.10	0.01	0.20	0.01
RPD		1	1	1	0	0	14	0	0
% Extraction Accuracy		92	80	84	85	82	84	87	94
% Instrument Accuracy		98	94	100	98	95	95	100	98

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: HC
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 4.0 mg/L As; 2.0 mg/L Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich

11-12-97
Date

6701 Aberdeen Avenue
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Sampling Date: 10/22/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maint.

TA#	FIELD CODE	TRPHC (mg/kg)
T83945	DCS-1	52,000
QC	Quality Control	99
RPD		10
RPD		4
% Extraction Accuracy		90
% Instrument Accuracy		99

METHODS: EPA SW 846-3550; EPA 418.1.
CHEMIST: MS
TRPHC SPIKE: 250 mg/kg TRPHC.
TRPHC QC: 100 mg/L TRPHC.

Director, Dr. Blair Leftwich

11-12-97
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
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November 11, 1997
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Extraction Date: 10/30/97
Analysis Date: 11/06/97
Sampling Date: 10/22/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T83945 DCS-1	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	73	*200	6	91
1,4-Dichlorobenzene	7.5	0.05	ND	72	17	50	90
o-Cresol	200.0	0.05	0.07	85	13	65	106
m,p-Cresol	200.0	0.05	0.06	89	12	55	111
Total Cresol	200.0	0.05	ND	---	---	---	---
Hexachloroethane	3.0	0.05	ND	93	19	38	116
Nitrobenzene	2.0	0.05	ND	89	16	42	111
Hexachlorobutadiene	0.5	0.05	ND	75	17	32	94
2,4,6-Trichlorophenol	2.0	0.05	ND	82	16	38	103
2,4,5-Trichlorophenol	400.0	0.05	ND	75	10	62	94
2,4-Dinitrotoluene	0.13	0.05	ND	94	1	45	116
2,4-D	10.0	0.05	ND	64	11	15	80
Hexachlorobenzene	0.13	0.05	ND	86	0	44	108
2,4,5-TP	1.0	0.05	ND	89	14	28	111
Pentachlorophenol	100.0	0.05	ND	91	9	50	114

*NOTE: RPD Out of Limits.
**NOTE: Surrogate recovery out of standard range.

ND - Not Detected

Surrogates	% RECOVERY
2-Fluorophenol	**8
Phenol-d6	28
Nitrobenzene-d5	39
2-Fluorobiphenyl	38
2,4,6-Tribromophenol	**30
Terphenyl-d14	73

Methods: EPA SW 846-1311, 8270.
CHEMIST: RP/HW

Director, Dr. Blair Leftwich

11-12-97
DATE

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Sampling Date: 10/22/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maint.

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T83945 DCS-1	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	0.105	8	85	105
1,1-Dichloroethene	0.70	0.05	ND	0.101	9	95	101
Methyl Ethyl Ketone	200.0	0.5	ND	0.093	1	103	93
Chloroform	6.00	0.05	ND	0.104	3	106	104
1,2-Dichloroethane	0.50	0.05	ND	0.112	7	111	112
Benzene	0.50	0.05	ND	0.100	5	101	100
Carbon Tetrachloride	0.50	0.05	ND	0.118	8	104	118
Trichloroethene	0.50	0.05	ND	0.098	5	102	98
Tetrachloroethene	0.70	0.05	ND	0.094	5	98	94
Chlorobenzene	100.00	0.05	ND	0.098	4	97	98
1,4-Dichlorobenzene	7.50	0.05	ND	0.100	4	98	100

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	93
4-Bromofluorobenzene	92

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RW

Director, Dr. Blair Leftwich

11-12-97
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 12, 1997
Receiving Date: 10/23/97
Sample Type: Sludge
Project No: WES 112-0000
Project Location: Denver City, TX

Extraction Date: 10/29/97
Analysis Date: 10/29/97
Sampling Date: 10/22/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T83846	DCS-1	Non-reactive	96	1.5	Non-corrosive	7.4	Nonignitable
QC	Quality Control	—	—	—	—	7.0	—
	RPD	0	0	0	0	0	0
	% Extraction Accuracy	—	—	—	—	100	—
	% Instrument Accuracy	—	—	—	—	—	—

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1; EPA 376.1, 335.2.
CHEMIST: JG

Director, Dr. Blair Leftwich

11-12-97
DATE

10/28/98 16:11 5055933615 CRI
OCT-28-98 WED 3:36 PM WEATHERFORD ENTERRA, AL FAX NO. 806 592 2420 P. 7
011

6701 Aberdeen Avenue
Lubbock Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL REPORT

CLIENT LP ENVIRONMENTAL
1031 ANDREWS HWY STE 207
MIDLAND, TX 79701

SAMPLE NO. : 7704054
INVOICE NO.: TE0106
REPORT DATE: 11-06-97
REVIEWED BY:
PAGE : 2 OF 2

DATA TABLE (Cont.)

Surrogate Information -	Percent Recovery	Range
Tetrachloro-m-Xylene	113.0	39-119
Decachlorobiphenyl	38.2	41-120

(1) copy to client

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL REPORT

CLIENT LP ENVIRONMENTAL
1031 ANDREWS HWY STE 207
MIDLAND, TX 79701

SAMPLE NO. : 7704054
INVOICE NO.: TE0106
REPORT DATE: 11-06-97
REVIEWED BY:
PAGE : 1 OF 1

CLIENT SAMPLE ID : DCS-1
SAMPLE TYPE .....: Sludge
SAMPLED BY .....: R. Walker
SUBMITTED BY ....: H. Shelton
SAMPLE SOURCE ...: WEA 112-0000
ANALYST .....: K. Costa

AUTHORIZED BY : R. Walker
CLIENT P.O. : --
SAMPLE DATE ...: 10-22-97
SUBMITTAL DATE : 10-30-97
EXTRACTION DATE: 11-01-97
ANALYSIS DATE .: 11-03-97

TCLP Pesticides by EPA 8081A

DATA TABLE

Parameter	Result	Unit	Detection Limit
Chlordane	<0.03	mg/L	0.03
Endrin	<0.02	mg/L	0.02
Heptachlor	<0.008	mg/L	0.008
Lindane	<0.4	mg/L	0.4
Methoxychlor	<10.	mg/L	10.
Heptachlor epoxide	<0.008	mg/L	0.008
Toxaphene	<0.5	mg/L	0.5

(1) Copy to Client

TRACEANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

MANAGING DIRECTOR

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ BY 2 PRICE pp Verbal Approval Received: Yes ☒ No ☐	4. Generator Weatherford 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Maclaskey
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 3000 W County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is for the Weatherford Hobbs Facility's sump sludge. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

10-004

Estimated Volume 3000 gallons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 10/05/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: PET Engr DATE: 10/6/98

APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford

ADDRESS 3000 W. County Road

GENERATING SITE 3000 W. County Road

COUNTY Lea STATE NM

TYPE OF WASTE Sump sludge

ESTIMATED VOLUME 3000 gallons

GENERATING PROCESS cleaning of oil field tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY McClaskey Oilfield Services

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Duane Bryant
SIGNATURE

NAME Duane Bryant
PRINTED

ADDRESS P.O. Box 2250

Hobbs, N.M. 88240

DATE 10-5-98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford

ADDRESS 3000 W. County Road

GENERATING SITE 3000 W. County Road

COUNTY Lea STATE NM

TYPE OF WASTE Sump sludge

ESTIMATED VOLUME 3000 gallons

GENERATING PROCESS cleaning of oil field tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY McClaskey Oilfield Services

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Duane Bryant
SIGNATURE

NAME Duane Bryant
PRINTED

ADDRESS P.O. Box 2250

Hobbs, N.M. 88240

DATE 10-5-98

102365

Page 1 of 1

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 174

Company Name: Llano Permian Environmental Phone #: (915) 522-2133
Address: 1031 Andrews Hwy Midland TX 79701 Fax #: (915) 522-2180
Contact Person: Rabbie Walker
Invoice to: (If different from above) Weatherford 3000 W. County Rd Hobbs NM
Project #: 101-010 Project Name: Yearly Sampling
Project Location: Hobbs NM Sampler Signature: Rabbie Walker

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
102365	S1	2	40 mL				X			X		9/7/98	9:30

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH 418.1	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
		X			X	X	X								

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Julie Ross	7/9/98	3:10PM	Helen Shelton	7/9/98	3:10 PM
Helen Shelton	7/9/98	6:00PM	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Vicki Worthen	7-10-98	10:00AM

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °
Log-in Review B

REMARKS: 7/28/98

Submittal of samples constitutes agreement to Terms and Conditions

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 • Lubbock, Texas 79424 • 800•378•1296 • 806•794•1296 • FAX 806•794•1298
4725 Ripley Avenue, Suite A • El Paso, Texas 79922 • 888•588•3443 • 915•585•3443 • FAX 915•585•4944
E-Mail: lab@traceanalysis.com

July 27, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-010
Project Location: Hobbs, NM

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project/Site Name: Yearly Sampling

		TCLP METALS (mg/L)							
TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T102365	S1	<0.10	<0.10	0.11	<0.05	0.13	<0.05	0.68	<0.010
ICV		1.0	1.0	0.99	0.98	0.99	0.20	1.0	0.055
CCV		1.0	1.0	1.0	1.0	0.98	0.20	1.0	0.050
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.10	<0.010
EXTRACTION DATE		07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/ 98
ANALYSIS DATE		07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/ 98
RPD		0	0	0	0	0	16	5	2
% Extraction Accuracy		95	100	95	95	95	108	105	98
% Instrument Accuracy		100	100	99	99	98	100	100	105

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: SA/HC
METHODS: EPA SW 846-1311, 6010B, 7470
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 5.0 mg/L Ag; 0.050 mg/L Hg
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.20 mg/L Ag; 0.050 mg/L Hg

Director, Dr. Blair Leftwich

7-27-98
Date

TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

July 27, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-010
Project Location: Hobbs NM

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

Extraction Date: 7/18/98
Analysis Date: 7/18/98
Sampling Date: 7/09/98
Sample Condition: I & C.
Sample Received by: VW
Project Name: Yearly Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T102365	S1	Non-reactive	<10	<2.5	Non-corrosive	7.7	Nonignitable
QC	Quality Control	—	—	—	—		—
RPD		0	0	0	0	0	0
% Extraction Accuracy		100	100	100	100	100	100
% Instrument Accuracy		—	—	—	—	100	—

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

7-27-98
DATE

TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Jul 15, 1998
Date Rec: 7/10/98
Project: 101-010
Proj Name: Yearly Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9807000174
Sampling Date: 7/9/98
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
102365	S1	Sludge	586,000
Method Blank			<10.0
Reporting Limit			10
QC			103
RPD			4
% Extraction Accuracy			110
% Instrument Accuracy			103

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPHC	EPA 3550	7/14/98	EPA 418.1	7/14/98	MS	100	250

Director, Dr. Blair Leftwich

7-15-98
Date

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

July 27, 1998
Receiving Date: 07/10/98
Sample Type: SLUDGE
Job Number: 101-010
Project Location: Hobbs, NM

Extraction Date: 07/21/98
Analysis Date: 07/22/98
Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Yearly Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T102365 S1	CV	RPD	%EA	%IA
Vinyl chloride	0.20	0.050	ND	118	2	87	118
1,1-Dichloroethene	0.70	0.050	ND	119	2	100	119
Methyl Ethyl Ketone	200.0	0.50	ND	83	1	116	83
Chloroform	6.00	0.050	ND	107	6	104	107
1,2-Dichloroethane	0.50	0.050	ND	107	7	91	107
Benzene	0.50	0.050	ND	110	2	106	110
Carbon Tetrachloride	0.50	0.050	ND	115	1	86	115
Trichloroethene	0.50	0.050	ND	117	2	110	117
Tetrachloroethene	0.70	0.050	ND	113	1	110	113
Chlorobenzene	100.00	0.050	ND	105	3	101	105
1,4-Dichlorobenzene	7.50	0.050	ND	110	1	109	110

SURROGATES	% Recovery
Dibromofluoromethane	83
Toluene-d8	88
4-Bromofluorobenzene	83

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: DG

Director, Dr. Blair Leftwich

7-27-98
DATE

TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A | El Paso, Texas 79922 | 888•588•3443 | 915•585•3443 | FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

July 27, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project #: 101-010
Project Location: Hobbs, NM

Extraction Date: 7/13/98
Analysis Date: 07/18/98
Sampling Date: 07/09/98
Sample Condition: I & C
Sample Received by: VW
Project Name: Yearly Samp

T102365

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	S1	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	68	5	36	75
1,4-Dichlorobenzene	7.5	0.05	ND	80	2	58	100
o-Cresol	200.0	0.05	ND	70	6	45	88
m,p-Cresol	200.0	0.05	ND	64	8	74	80
Hexachloroethane	3.0	0.05	ND	66	4	49	83
Nitrobenzene	2.0	0.05	ND	78	1	68	98
Hexachlorobutadiene	0.5	0.05	ND	87	1	59	109
2,4,6-Trichlorophenol	2.0	0.05	ND	82	116*	13**	103
2,4,5-Trichlorophenol	400.0	0.05	ND	86	84*	25**	108
2,4-Dinitrotoluene	0.13	0.05	ND	74	4	66	93
2,4-D	10.0	0.05	ND	91	1	72	114
Hexachlorobenzene	0.13	0.05	ND	80	2	59	100
2,4,5-TP	1.0	0.05	ND	93	6	63	116
Pentachlorophenol	100.0	0.05	ND	79	141*	4**	99

Surrogates	% RECOVERY
2-Fluorophenol	30
Phenol-d6	27
Nitrobenzene-d5	64
2-Fluorobiphenyl	54
2,4,6-Tribromophenol	63
Terphenyl-d14	69

ND - Not Detected

***NOTE: RPD out of control limits due to concentration of sample.**
****EA limits out of control limit due to concentration of sample.**

Methods: EPA SW 846-1311, 8270.
CHEMIST: MB

Director, Dr. Blair Leftwich

7-27-98
DATE

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

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

Form C-13
Originated 8/8/

Submit Origi
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to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator National Oil Well 5. Originating Site Odessa Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Controlled Recovery, Inc.
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 3801 West Loop 338	Odessa, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the National Oil Well Odessa facility. The sludge was generated by the steam cleaning/washing oil field tools. I have encluded a certificate of waste, Texas waste code, and a chain of custody.

09-003

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

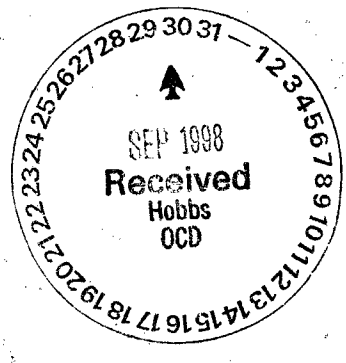
SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 09/29/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr Spec DATE: 10-7-98 *

APPROVED BY: _____ TITLE: _____ DATE: _____


SEP 1998
Received
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR National Oil Well

ADRESS 3801 West Loop 338

GENERATING SITE 3801 West Loop 338, Odessa, Texas 79764

COUNTY Ector STATE TX

TYPE OF WASTE Sludge

ESTINATED VOLUME 5 yds

GENERATING PROCESS Steam cleaning/washing oil field tools.

REMARKS TX Waste Code 00014891

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Controlled Reovery, Inc.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT Melinda Beggs
SIGNATURE

NAME Melinda A. Beggs
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 115
Midland, Texas 79701

DATE September 29, 1998

September 29, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 5 yds of sludge generated by National Oil Well. National Oil Well has generated this waste from washing/steam cleaning oil field tools.

National Oil Well
3801 West Loop 338
Odessa, TX (Ector Cnty.) 79764
(915)381-4515

The transporter of this waste will be Controlled Recovery, Inc. CRI is at:

P.O. Box 369
Hobbs, New Mexico 88241

Please find attached copies of the certificate of waste, analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Melinda Beggs

Melinda Beggs
Environmental Technician

cc: Terry James, Llano-Permian Environmental
File: NOW.001.WD1

Attachments

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

September 17, 1998
Receiving Date: 08/29/98
Sample Type: Sludge
Project No:
Project Location: National Oil Well

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Jennifer Fuqua
1301 Andrews Hwy., Suite 207
Midland, TX 79701

Extraction Date: 9/14/98
Analysis Date: 9/14/98
Sampling Date: 8/28/98
Sample Condition: I & C.
Sample Received by: NG
Project Name: Waste classification, Disposal Invesgitation

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
T106329	Drum Sludge	Non-reactive	400	50	Non-corrosive	8.2	Nonignitable
QC	Quality Control	---	---	---	---	.	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		100	100	100	100	100	100
% Instrument Accuracy		---	---	---	---	---	---

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

9-17-98
DATE

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Jennifer Fuqua
1301 Andrews Hwy., Suite 207
Midland, TX 79701

September 17, 1998
Receiving Date: 08/29/98
Sample Type: Sludge
Project No:
Project Location: National Oil Well

Extraction Date: 9/03/98
Analysis Date: 9/04/98
Sampling Date: 8/28/98
Sample Condition: I & C.
Sample Received by: NG
Project Name: Waste classification, Disposal Invesgitation

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T106329 Drum Sludge	CV	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	83	0	80	83
1,1-Dichloroethene	0.70	0.05	ND	107	0	100	107
Methyl Ethyl Ketone	200.0	0.50	ND	60*	0	99	60*
Chloroform	6.00	0.05	ND	97	0	70	97
1,2-Dichloroethane	0.50	0.05	ND	86	0	100	86
Benzene	0.50	0.05	ND	94	10	105	94
Carbon Tetrachloride	0.50	0.05	ND	106	0	70	106
Trichloroethene	0.50	0.05	0.21	110	0	94	110
Tetrachloroethene	0.70	0.05	ND	96	0	110	96
Chlorobenzene	100.00	0.05	ND	90	0	100	90
1,4-Dichlorobenzene	7.50	0.05	ND	94	10	95	94

*Out of Range

SURROGATES	% Recovery
Dibromofluoromethane	98
Toluene-d8	116
4-Bromofluorobenzene	102

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: AG

Director, Dr. Blair Leftwich

9-17-98
DATE

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Jennifer Fuqua
1301 Andrews Hwy., Suite 207
Midland, TX 79701

September 17, 1998
Receiving Date: 08/29/98
Sample Type: Sludge
Project No:
Project Location: National Oil Well

Extraction Date: 9/05/98
Analysis Date: 9/08/98
Sampling Date: 8/28/98
Sample Condition: I & C.
Sample Received by: NG
Project Name:Waste classification, Disposal Invesgitation

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T106329 Drum Sludge	CV	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	92	62*	25	115
1,4-Dichlorobenzene	7.5	0.05	ND	80	13	58	100
o-Cresol	200.0	0.05	ND	89	14	54	111
m,p-Cresol	200.0	0.05	ND	87	11	91	109
Hexachloroethane	3.0	0.05	ND	86	16	62	108
Nitrobenzene	2.0	0.05	ND	83	15	63	104
Hexachlorobutadiene	0.5	0.05	ND	87	14	58	109
2,4,6-Trichlorophenol	2.0	0.05	ND	85	9	62	106
2,4,5-Trichlorophenol	400.0	0.05	ND	67	12	55	84
2,4-Dinitrotoluene	0.13	0.05	ND	81	8	86	101
2,4-D	10.0	0.05	ND	75	4	66	94
Hexachlorobenzene	0.13	0.05	ND	91	2	63	114
2,4,5-TP	1.0	0.05	ND	90	6	51	113
Pentachlorophenol	100.0	0.05	ND	81	19	33	101

Surrogates	**% RECOVERY**
2-Fluorophenol	45
Phenol-d6	34
Nitrobenzene-d5	69
2-Fluorobiphenyl	74
2,4,6-Tribromophenol	79
Terphenyl-d14	62

*Reported LCS/LCSD Data

ND - Not Detected

Methods: EPA SW 846-1311, 8270.
CHEMIST: JG

Director, Dr. Blair Leftwich

9-17-98
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

September 17, 1998
Receiving Date: 08/29/98
Sample Type: Sludge
Project No:
Project Location: National Oil Well

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Jennifer Fuqua
1301 Andrews Hwy., Suite 207
Midland, TX 79701

Sampling Date: 08/28/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name:Waste classification,
Disposal Invesgitation

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T106329	Drum Sludge	<0.10	<0.10	<0.02	0.12	<0.10	<0.05	1.1	<0.010
ICV		1.0	1.0	1.0	1.0	1.0	0.20	0.98	5.2
CCV		1.0	1.0	1.1	1.0	1.1	0.20	0.99	4.9
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.10	0.010
EXTRACTION DATE		09/01/98	09/01/98	09/01/98	09/01/98	09/01/98	09/01/98	09/01/98	09/01/98
ANALYSIS DATE		09/03/98	09/03/98	09/03/98	09/03/98	09/03/98	09/03/98	09/03/98	09/02/98
RPD		5	0	0	0	0	9	5	
% Extraction Accuracy		90	95	95	95	95	92	85	112
% Instrument Accuracy		100	100	105	100	105	100	98	93

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: MS
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; .40 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.20 mg/L Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich

9-17-98
Date

TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Jennifer Fuqua
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Sep 17, 1998
Date Rec: 8/29/98
Project: N/A
Proj Name: Waste Classification, Disposal Investigati
Proj Loc: National Oil Well

Lab Receiving # : 9808000593
Sampling Date: 8/28/98
Sample Condition: Intact and Cool
Sample Received By: NG

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
106329	Drum Sludge	Sludge	808,000
	Method Blank		<10.0
	Reporting Limit		10
	QC		99
	RPD		9
	% Extraction Accuracy		89
	% Instrument Accuracy		99

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPHC	EPA 3550	8/27/98	EPA 418.1	8/30/98	SLR	100	250

Director, Dr. Blair Leftwich

9-17-98
Date

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK w PRICE 9/28/98	4. Generator B J Services
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter CRI
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2708 W County Road	Hobbs, New Mexico

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.

SF copy

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the B J Services Hobbs facility. The material was generated by washing trucks. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

09-002

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Estimated Volume 225 bbls cy Known Volume (to be entered by the operator at the time of haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 09/21/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: Wayne Price TITLE: PET ENGR SPEC DATE: 9/28/98

APPROVED BY: (SF) by Wayne Price TITLE: " DATE: "

CERTIFICATE OF WASTE STATUS
NON-EMEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR B J Services

ADDRESS 2708 West County Road Hobbs, New Mexico

GENERATING SITE Wash Bay

COUNTY Lea STATE NM

TYPE OF WASTE Wash bay

ESTIMATED VOLUME 225 BBLS

GENERATING PROCESS washing trucks

REMARKS

NMOCD FACILITY Controlled Recovery, Inc.

TRUCKING COMPANY Controlled Recovery, Inc.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT Dan Miller
SIGNATURE

NAME Dan Miller
PRINTED

ADDRESS 2708 W County Road

Hobbs, New Mexico

DATE 09/21/98

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CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/27/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD

Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP

TCLP METALS

LAB NUMBEF SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	03/25/98	03/20/98	03/20/98	03/20/98	03/20/98	03/20/98	03/26/98	03/25/98
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H3519-1 WASH BAY COMP.	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control	0.211	5.014	21.70	2.011	4.929	5.211	0.0103	0.206
True Value QC	0.200	5.000	20.00	2.000	5.000	5.000	0.0100	0.200
% Recovery	106	100	109	101	99	104	103	103
Relative Standard Deviation	8.3	0.6	6.6	0.7	0.6	2.1	3.9	2.6
METHODS: EPA 1311, 600/4-91/0	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

03/27/98
Date

SEP 1998
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ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/26/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD

Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		03/20/98	03/20/98	03/25/98	03/25/98
H3519-1	WASH BAY COMP	Not reactive	Not reactive	9.11	Nonflammable
Quality Control		NR	NR	7.03	NR
True Value QC		NR	NR	7.00	NR
% Accuracy		NR	NR	100	NR
Relative Percent Difference		NR	NR	0.4	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

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Chemist

3/26/98
Date

H3519FR.XLS

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ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/24/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD
Lab Number: H3519-1
Sample ID: WASH BAY COMP.

Analysis Date: 03/23/98
Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3519-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.002	0.012	12	0.100
1,4-Dichlorobenzene	7.50	<0.020	<0.002	0.027	27	0.100
o-Cresol	200	<0.020	<0.002	0.035	35	0.100
m, p-Cresol	200	<0.020	<0.002	0.037	37	0.100
Hexachloroethane	3.00	<0.020	<0.002	0.023	23	0.100
Nitrobenzene	2.00	<0.020	<0.002	0.046	46	0.100
Hexachloro-1,3-butadiene	0.500	<0.020	<0.002	0.037	37	0.100
2,4,6-Trichlorophenol	2.00	<0.020	<0.002	0.053	53	0.100
2,4,5-Trichlorophenol	400	<0.020	<0.002	0.058	58	0.100
2,4-Dinitrotoluene	0.130	<0.020	<0.002	0.068	68	0.100
Hexachlorobenzene	0.130	<0.020	<0.002	0.060	60	0.100
Pentachlorophenol	100	<0.020	<0.002	0.062	62	0.100

	% RECOVERY
Fluorophenol	30
Phenol-d5	26
Nitrobenzene-d5	51
2-Fluorobiphenyl	57
2,4,6-Tribromophenol	57
Terphenyl-d14	78

METHODS: EPA SW 846-8270, 1311

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Burgess J. A. Cooke, Ph. D.

3/24/98
Date

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ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/23/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD
Lab Number: H3519-1
Sample ID: WASH BAY COMP.

Analysis Date: 03/20/98
Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.115	115	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.097	97	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.105	105	0.100
Chloroform	6.0	<0.005	<0.005	0.113	113	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.100	100	0.100
Benzene	0.5	<0.005	<0.005	0.114	114	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.102	102	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.119	119	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.119	119	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.116	116	0.100

	% RECOVERY
Dibromofluoromethane	92
Toluene-d8	92
Bromofluorobenzene	84

METHODS: EPA SW 846-8260, 1311

Burgess J.A. Cooke, Ph. D.

3/23/98
Date

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CARDINAL LABORATORIES, INC.

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101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H3519

Page____ of____

Company Name:	BJ SERVICES
Project Manager:	
Address:	2708 N WEST COUNTY ROAD
City:	HOBBS State: NM Zip:
Phone #:	505-392-5556
Fax #:	
Project #:	Project Owner: BJ SERVICES
Project Name:	WASH BAYS (2) COMPOSITE
Project Location:	HOBBS, N. M. - YARD

BILL TO	
PO #:	
Company:	CRI
Attn:	KEN MORRISH
Address:	
City:	HOBBS
State:	NM Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

TCLP - COMPLETE

RECEIVED SEP 1998 Hobbs OCD

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRES.: ACID:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	
H3519-1	WASH BAY COMP		2		✓						✓		03/19/98	1:45	✓

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 03/19/98 Time: 1:45	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
			Fax Result: ☐ Yes ☐ No
			REMARKS:
Relinquished By:	Date: 03/19/98 Time: 2:00	Received By: (Lab Staff)	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

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

Form C-13
Originated 8/8/

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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator L G & E Natural
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Plant
2. Management Facility Destination Contolled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P. O. Box 388, Hobbs	8. State NM
7. Location of Material (Street Address or ULSTR) 921 Sanger Hobbs	NM

9. Circle One:

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

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

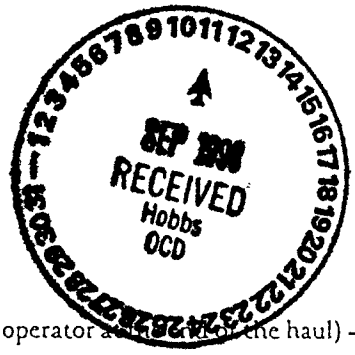
All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the L G & E Natural Hobbs Plant. The waste was generated by rain caught from the plant. I have included a certificate of waste and a chain of custody. This material has been approved in the past.

9498

SF copy



Estimated Volume 100 bbls. cy Known Volume (to be entered by the operator at the time of the haul) _____ cy

SIGNATURE: _____ TITLE: President DATE: 9-3-98
Waste Management Facility Authorized Agent

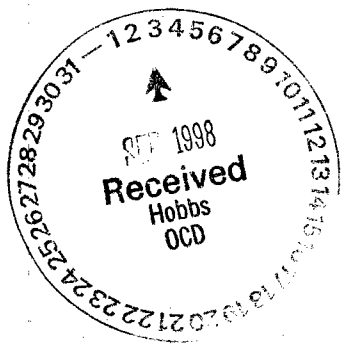
TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. 505-393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: PET ENGR DATE: 9/12/98

APPROVED BY: Santa Fe By _____ TITLE: " DATE: "


RECEIVED
Hobbs
OCD


SEP 1998
Received
Hobbs
OCD

CERTIFICATE OF WASTE STATUS

NON–EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: L G & E Natural

SOURCE: 921 W. Sanger Hobbs, NM

DISPOSAL LOCATION: Hobbs Plant

As a condition of acceptance for disposal, I hearby certify that this waste is a non–exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non–hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3.

I, the undersigned as the agent for L G & E concur with the status of the waste from the subject site.

Name

Title/Angency Supervisor Operations Support

Address 921 W. Sanger Hobbs, NM

Signature Ed Sloman

Date 9-17-98

SEP 1998
RECEIVED
Hobbs
OCD

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/12/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT
Lab Number: H3115-1
Sample ID: SHOP OIL/RAIN WATER TANK

Analysis Date: 08/11/97
Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3115-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.102	102	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.106	106	0.100
Methyl Ethyl Ketone	200	0.693	<0.050	0.106	106	0.100
Chloroform	6.0	<0.005	<0.005	0.100	100	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.102	102	0.100
Benzene	0.5	0.006	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.106	106	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.103	103	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.103	103	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

	% RECOVERY
Dibromofluoromethane	82
Toluene-d8	94
Bromofluorobenzene	83

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

6/12/97
Date

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Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3115-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.047	47	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.051	51	0.100
o-Cresol	200	<0.008	<0.002	0.085	85	0.100
m, p-Cresol	200	0.238	<0.002	0.158	79	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.052	52	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.088	88	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.058	58	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.098	98	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.102	102	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.104	104	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.102	102	0.100
Pentachlorophenol	100	<0.008	<0.002	0.104	104	0.100

	% RECOVERY
Fluorophenol	48
Phenol-d5	94
Nitrobenzene-d5	102
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	87
Terphenyl-d14	106

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke, Ph. D.

9/9/97
Date

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Receiving Date: 08/08/97
Reporting Date: 08/12/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: GP

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/11/97	08/09/97
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3115-1	SHOP OIL/RAIN WATER TANK	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.093	1.04	19.70	1.001	0.99	2.05	0.0091	0.092
True Value QC		0.100	1.00	20.00	1.000	1.00	2.00	0.0100	0.100
% Recovery		93	104	98	99	99	103	91	92
Relative Standard Deviation		1.4	0.7	11.6	1.2	0.8	1.1	1.6	2.4
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

08/12/97
Date

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WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1616
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/14/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL, INTAC
Sample Received By: BC
Analyzed By: BC/GP

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		8/9/97	8/9/97	8/13/97	8/13/97
H3115-1	SHOP OIL/RAIN WATER TANK	<50	<50	6.31	>140
Quality Control		NR	0.105	7.02	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

Chemist

08/14/97
Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H 3115

Page ___ of ___

Company Name: WEC	BILL TO PO #: Consultants
Project Manager: Allen Hodge	Company: Western Environmental
Address: P.O. Box 1816	Attn: Allen Hodge
City: Hobbs State: NM Zip: 88241	Address: P.O. Box 1816
Phone #: 392-5021	City: Hobbs,
Fax #: 397-2597	State: N M Zip: 8 8241
Project #: LEA E NAT.	Phone #: 505 392 5021
Project Name: APEX STATION	Fax #: 505 397 2597
Project Location: Hobbs PLANT	

LAB I.D. #	Sample I.D.	COMP(C) OR GRAB(G)	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERVATION: ACID:	ICE / COOL	OTHER:	SAMPLING DATE	SAMPLING TIME	ANALYSIS REQUEST: TCLP VOL	TCLP SVOL	TCLP METALS	PCI
H-3115-1	SLOP OIL/RAIN WATER TANK	C	3		X						X		8-8-97	4:30 PM				

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Sampler Relinquished:	Date: 8-8-97	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #:
	Time: 4:30 pm		Fax Results: ☐ Yes ☐ No
Relinquished By:	Date:	Received By: (Lab Staff)	REMARKS: THIS SAMPLE WAS TAKEN FROM THE SLOP OIL/RAIN WATER TANK THAT RAN OVER.
	Time:		
Delivered By: (Circle One) UPS - Fed Ex - Bus - Other:	Sample Condition: Cool ☑ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)	

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

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

Form C-13
Originated 8/8/

Submit Origir
Plus 1 Co
to appropria
District Offi

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator **L G & E Natural**
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site **Hobbs Plant**
2. Management Facility Destination **Controlled Recovery, Inc.**	6. Transporter **Rowland**
3. Address of Facility Operator **P. O. Box 388, Hobbs**	8. State **NM**
7. Location of Material (Street Address or ULSTR) **921 Sanger Hobs**	**NM**

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the L G & E Natural Hobbs Plant. The waste was generated by rain caught from the plant. I have included a certificate of waste and a chain of custody. This material has been approved in the past.

9598

SF COPY

SEP 1998
RECEIVED
Hobbs
OCD

Estimated Volume **100 bbls.** cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: **President** DATE: **9-17-98**
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Mosser TELEPHONE NO. 393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr DATE: 9/22/98

APPROVED BY: SANTA FE By _____ TITLE: " DATE: "

CERTIFICATE OF WASTE STATUS

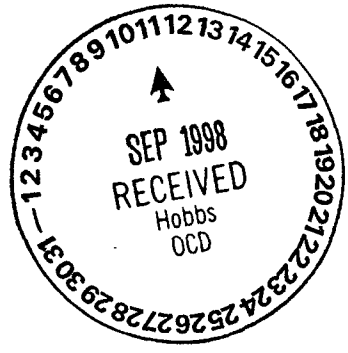
NON–EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: L G & E Natural

SOURCE: 921 West Sanger Hobbs, NM

DISPOSAL LOCATION: Hobbs Plant

As a condition of acceptance for disposal, I hearby certify that this waste is a non–exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non–hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3.



I, the undersigned as the agent for L G & E concur with the status of the waste from the subject site.

Name [signature]

Title/Angency Supervisor of Operation Support

Address 921 W. Sanger Hobbs, NM

Signature Ed Sloman

Date 9-3-98

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Reporting Date: 08/12/97
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Project Name: APEX STATION
Project Location: HOBBS PLANT
Lab Number: H3115-1
Sample ID: SHOP OIL/RAIN WATER TANK

Analysis Date: 08/11/97
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Sample Type: LIQUID
Sample Condition: COOL & INTACT
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Analyzed By: BC

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Vinyl Chloride	0.20	<0.005	<0.005	0.102	102	0.100
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	% RECOVERY
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Bromofluorobenzene	83

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

8/12/97
Date

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TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/11/97	08/09/97
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3116-1	SHOP OIL/RAIN WATER TANK	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.093	1.04	19.70	1.001	0.99	2.05	0.0091	0.092
True Value QC		0.100	1.00	20.00	1.000	1.00	2.00	0.0100	0.100
% Recovery		93	104	98	99	99	103	91	92
Relative Standard Deviation		1.4	0.7	11.5	1.2	0.8	1.1	1.6	2.4
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

05/13/97
Date

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PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/14/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL, INTAC
Sample Received By: BC
Analyzed By: BC/GP

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		8/9/97	8/9/97	8/13/97	8/13/97
H3115-1	SHOP OIL/RAIN WATER TANK	<50	<50	6.31	>140
Quality Control		NR	0.105	7.02	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

Chemist

08/14/97
Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H 3115

Page ___ of ___

Company Name: WEC	BILL TO: PO#: Consultants
Project Manager: Allen Hodge	Company: Western Environmental
Address: P.O. BOX 1816	Attn: Allen Hodge
City: Hobbs State: NM Zip: 88241	Address: P.O. Box 1816
Phone #: 392-5021	City: Hobbs,
Fax #: 397-2597	State: N M Zip: 8 8241
Project #: 66E NAT.	Phone #: 505 392 5021
Project Name: APEX STATION	Fax #: 505 397 2597
Project Location: Hobbs PLANT	

LAB I.D. #	Sample I.D.	COMP(C) OR GRAB(G)	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERVATION: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TCLP VOL	TCLP SVI	TCLP METALS	PCI
H-3115-1	SLOP OIL/RAIN WATER TANK	C	3		X						X		8-8-97	4:30 PM	1	1	1	1

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Sampler Relinquished:	Date: 8-8-97	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #:
	Time: 4:30 PM		Fax Results: ☐ Yes ☐ No
Relinquished By:	Date:	Received By: (Lab Staff)	REMARKS: THIS SAMPLE WAS TAKEN FROM THE SLOP OIL/RAIN WATER TANK THAT RAN OVER.
	Time:		
Delivered By: (Circle One) UPS - Fed Ex - Bus - Other:		Sample Condition: Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropria
District Offi

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator L G & E Natural
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Apex Station
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P. O. Box 388, Hobbs,	8. State NM
7. Location of Material (Street Address or ULSTR) 921 W. Sanger Hobbs	NM

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the L G & E Natural Apex Station. The waste was generated by washdown water and rain water caught from Apex Station contaminated skids. I have included a certificate of waste and a chain of custdy. This material has been approved in the past.

SF copy

9698

SEP 1998
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Hobbs
OCD

Estimated Volume 100 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: President DATE: 9-3-98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. 505-393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Pet Engr DATE: 9/12/98

APPROVED BY: Santa Fe By _____ TITLE: " DATE: "

CERTIFICATE OF WASTE STATUS

NON–EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: L G & E Natural

SOURCE: 921 West Sanger, Hobbs, NM

DISPOSAL LOCATION: Apex Station

As a condition of acceptance for disposal, I hearby certify that this waste is a non–exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non–hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3.

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Hobbs
OCD

I, the undersigned as the agent for L G & E concur with the status of the waste from the subject site.

Name

Title/Angency Supervisor Operations Support

Address 921 W. Sanger, Hobbs, NM

Signature Ed Sloman

Date 9-3-98

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/12/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT
Lab Number: H3115-1
Sample ID: SHOP OIL/RAIN WATER TANK

Analysis Date: 08/11/97
Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3115-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.102	102	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.106	106	0.100
Methyl Ethyl Ketone	200	0.593	<0.050	0.106	106	0.100
Chloroform	6.0	<0.005	<0.005	0.100	100	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.102	102	0.100
Benzene	0.5	0.006	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.106	106	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.103	103	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.103	103	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

	% RECOVERY
Dibromofluoromethane	82
Toluene-d8	94
Bromofluorobenzene	83

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

6/12/97
Date

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ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/09/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT
Lab Number: H3115-1
Sample ID: SHOP OIL/RAIN WATER TANK

Analysis Date: 08/08/97
Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3115-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.047	47	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.051	51	0.100
o-Cresol	200	<0.008	<0.002	0.085	85	0.100
m, p-Cresol	200	0.236	<0.002	0.158	79	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.052	52	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.088	88	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.058	58	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.098	98	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.102	102	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.104	104	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.102	102	0.100
Pentachlorophenol	100	<0.008	<0.002	0.104	104	0.100

	% RECOVERY
Fluorophenol	48
Phenol-d5	94
Nitrobenzene-d5	102
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	67
Terphenyl-d14	106

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke, Ph. D.

9/9/97
Date

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ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/12/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: GP

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/11/97	08/09/97
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3115-1	SHOP OIL/RAIN WATER TANK	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.093	1.04	19.70	1.001	0.99	2.05	0.0091	0.092
True Value QC		0.100	1.00	20.00	1.000	1.00	2.00	0.0100	0.100
% Recovery		93	104	98	99	99	103	91	92
Relative Standard Deviation		1.4	0.7	11.6	1.2	0.8	1.1	1.6	2.4
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

08/13/97
Date

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ATTN: ALLEN HODGE
P.O. BOX 1616
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/14/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL, INTAC
Sample Received By: BC
Analyzed By: BC/GP

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		8/9/97	8/9/97	8/13/97	8/13/97
H3115-1	SHOP OIL/RAIN WATER TANK	<50	<50	8.31	>140
Quality Control		NR	0.105	7.02	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

Chemist

08/14/97
Date

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H 3115

Page ___ of ___

Company Name: WEC	BILL TO: PO#: Consultants
Project Manager: Allen Hodge	Company: Western Environmental
Address: P.O. Box 1816	Attn: Allen Hodge
City: Hobbs State: NM Zip: 88241	Address: P.O. Box 1816
Phone #: 392-5021	City: Hobbs,
Fax #: 397-2597	State: N M Zip: 8 8241
Project #: 66-E NAT.	Phone #: 505 392 5021
Project Name: APEX STATION	Fax #: 505 397 2597
Project Location: Hobbs PLANT	

LAB I.D. #	Sample I.D.	COMP(C) OR GRAB(G)	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERVATIVE: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TCLP VOL	TCLP SVI	TCLP METALS	RCI
H-3115-1	SLOP OIL/RAIN WATER TANK	G	3		X						X		8-8-97	4:00 PM	X	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Sampler Relinquished:	Date: 8-8-97	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #:
	Time: 4:00 PM		Fax Results: ☐ Yes ☐ No
Relinquished By:	Date:	Received By: (Lab Staff)	REMARKS: THIS SAMPLE WAS TAKEN FROM THE SLOP OIL/RAIN WATER TANK THAT RAN OVER.
	Time:		
Delivered By: (Circle One) UPS - Fed Ex - Bus - Other:		Sample Condition: Cool ☒ Yes ☐ No; Intact ☒ Yes ☐ No	CHECKED BY: (Initials)

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

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

Form C-13
Originated 8/8/

Submit Origi
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to appropri
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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Andrews Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Bergstein Services
3. Address of Facility Operator P.O. 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1921 Kermit Hwy	Andrews, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Andrews facility. The sludge and waste water was generated by steam cleaning oilfield tools. I have included certificate of waste, a chain of custody, and a Texas waste code.

SEP 1998
RECEIVED
Hobbs
OCD

09-001 SF copy

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

SIGNATURE: Billie Charo TITLE: Environ. Compliance Manager DATE: 09/11/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: PET ENGR DATE: 9/2/98

APPROVED BY: SANTA FE By W Price TITLE: " DATE: "

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, Inc.

ADDRESS 1921 Keemit Highway Andrews, TX 79714

GENERATING SITE 1921 Keemit Highway Andrews Tx 79714

COUNTY Andrews STATE Texas

TYPE OF WASTE Sludge and wastewater

ESTIMATED VOLUME 200 barrels (8400 gallons)

GENERATING PROCESS Steam cleaning Oilfield tools

REMARKS This waste is from the Andrews facility

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Bergstein Services (806) 744-6278

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT _____
SIGNATURE

NAME Terry James
PRINTED

ADDRESS 1031 Andrews Highway
Suite 115 Midland, Texas 79701

DATE 9/11/98

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Lubbock, TX 79424

January 02, 1998
Receiving Date: 12/16/97
Sample Type: Sludge
Project No: 101-006
Project Location: Andrews, TX

Extraction Date: 12/21/97
Analysis Date: 12/21/97
Sampling Date: 12/15/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T87358	AS-1	Non-reactive	20.0	5.0	Non-corrosive	6.8	Nonignitable
QC	Quality Control	—	—	—	—	7.0	—
RPD		0	0	0	0	0	0
% Extraction Accuracy		—	—	—	—	—	—
% Instrument Accuracy		—	—	—	—	100	—

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1.
CHEMIST: JG

Director, Dr. Blair Leftwich

1-2-98
DATE

09/11/1998 10:27 9155203844 LP ENVIRONMENTAL PAGE 05

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Lubbock, TX 79424

January 02, 1998
Receiving Date: 12/16/97
Sample Type: Sludge
Project No: 101-006
Project Location: Andrews, TX

Extraction Date: 12/16/97
Analysis Date: 12/18/97
Sampling Date: 12/15/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maint.

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cr	Cd	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	5.0	1.0	5.0	5.0	100.0	0.20
T87358	AS-1	<0.10	<0.10	<0.05	<0.02	<0.10	<0.05	0.43	<0.01
QC	Quality Control	5.1	5.0	5.0	5.0	5.1	1.0	5.0	0.0515
Reporting Limit		0.10	0.10	0.05	0.02	0.10	0.05	0.10	0.01
RPD		0	0	5	0	0	1	0	2
% Extraction Accuracy		100	95	95	90	85	88	95	99
% Instrument Accuracy		102	100	100	100	102	100	100	103

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: HC
METHODS: EPA SW 846-1311, 6010B, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

BB

Director, Dr. Blair Leftwich

1-2-98

Date

09/11/1998 10:27 9155203844 LP ENVIRONMENTAL PAGE 06

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention: Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx 79701

Date: Jan 02, 1998
Date Rec: 12/16/97
Project: 101-006
Proj Name: Maint
Proj Loc: Andrews, Tx.

Lab Receiving # : 9712000294
Sampling Date: 2/15/97
Sample Condition: Intact and Cool
Sample Received By: VW

TCLP Vol in Sludge (mg/L)	EPA Limit	Reporting Limit	Method Blank	T87358 AS-1	QC	RPD	%EA	%IA
Vinyl Chloride	0.2	0.05	ND	ND	96	4	91	96
1,1-Dichloroethene	0.7	0.05	ND	ND	92	11	110	92
Methyl Ethyl Ketone	200.0	0.50	ND	ND	84	4	77	84
Chloroform	6.0	0.05	ND	ND	106	4	104	106
1,2-Dichloroethane	0.5	0.05	ND	ND	114	6	103	114
Benzene	0.5	0.05	ND	ND	100	5	95	100
Carbon Tetrachloride	0.5	0.05	ND	ND	120	2	112	120
Trichloroethene	0.5	0.05	ND	ND	93	4	103	93
Tetrachloroethane	0.7	0.05	ND	ND	98	2	110	98
Chlorobenzene	100.0	0.05	ND	ND	101	5	99	101
1,4-Dichlorobenzene	7.5	0.05	ND	ND	107	7	98	107

	% RECOVERY
Dibromofluoromethane	94
Toluene-d8	96
4-Bromofluorobenzene	99

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
TCLP Vol	EPA 1311	12/20/97	EPA 8260	12/23/97	RW	100 ea	100 ea

Director, Dr. Blair Leftwich

1-2-98
Date

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention: Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx 79701

Date: Jan 02, 1998
Date Rec: 12/16/97
Project: 101-006
Proj Name: Maint
Proj Loc: Andrews, Tx.

Lab Receiving # : 9712000294
Sampling Date: 2/15/97
Sample Condition: Intact and Cool
Sample Received By: VW

TCLP Semivolatiles in Sludge (mg/L)	EPA Limit	Reporting Limit	Method Blank	T87358 AS-1	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	ND	71	17	13	71
1,4-Dichlorobenzene	7.5	0.05	ND	ND	70	14	30	70
o-Cresol	200.0	0.05	ND	ND	70	20	49	70
m,p-Cresol	200.0	0.05	ND	0.48	74	7	44	74
Hexachloroethane	3.0	0.05	ND	ND	69	17	39	69
Nitrobenzene	2.0	0.05	ND	ND	78	16	47	78
Hexachlorobutadiene	0.5	0.05	ND	ND	73	17	39	73
2,4,6-Trichlorophenol	2.0	0.05	ND	ND	70	19	40	70
2,4,5-Trichlorophenol	400.0	0.05	ND	ND	78	13	41	78
2,4-Dinitrotoluene	0.13	0.05	ND	ND	76	14	45	76
2,4-D	10.0	0.05	ND	ND	72	3	91	72
Hexachlorobenzene	0.13	0.05	ND	ND	76	11	50	76
2,4,5-TP	1.0	0.05	ND	ND	72	3	210	72
Pentachlorophenol	100.0	0.05	ND	ND	90	35	57	90

ND = Not Detected

*Surrogate recovery out of standard range due to matrix effect for 2-Fluorophenol.

Surrogate	% RECOVERY	Surrogate	% RECOVERY
2-Fluorophenol	13	2-Fluorobiphenyl	45
Phenol-D6	20	2,4,6-Tribromophenol	53
Nitrobenzene-d5	52	Terphenyl-d14	72

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
TCLP Semi	EPA 1311	12/19/97	EPA 8270	12/23/97	RP/HW	100 ea	100 ea

Director, Dr. Blair Leftwich

1-2-98
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Dec 18, 1997
Date Rec: 12/16/97
Project: 101-006
Proj Name: Maint
Proj Loc: Andrews,Tx.

Lab Receiving # : 9712000294
Sampling Date: 12/15/97
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
T87358	AS-1	Sludge	362,000
	Method Blank		<10.0
	Reporting Limit		10
	QC		103
	RPD		1
	% Extraction Accuracy		101
	% Instrument Accuracy		103

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPHC	EPA 3550	12/18/97	EPA 418.1	12/18/97	MS	100	250

BL

Director, Dr. Blair Leftwich

12-18-97

Date

TRACE ANALYSIS, INC.

An Institute for Advanced Environmental Research and Analysis

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 294

Company Name: LP Environmental
Phone #: (915) 522-2133
Address: 1031 Andrews Hwy Ste 207
Fax #: (915) 522-2180
Contact Person: Robbie Walker
Invoice to: (if different from above) Weatherford Enterra 1921 Kermit Hwy Andrews TX 79714
Project #: 101-006
Project Name: Maint
Project Location: Andrews TX
Sampler Signature: Robbie Walker

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
358	AS-1	1	32oz				X				X	12/15/97	2:30

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
		X			X	X	X	X							

Relinquished by: Date: Time: 12/15/97 4:24
Received by: Date: Time:
Relinquished by: Date: Time:
Received by: Date: Time:
Relinquished by: Date: Time: 12/15 4:20
Received at Laboratory by: Date: Time: 12-16-97 9:20 AM

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 1 °
Log-In Review

REMARKS: per Robbie no PCB, no pesticide 12-16-97 MB.
350 AA

Carrier # Bus 155 758 818 6

09/11/1998 10:27 9155203844 LP ENVIRONMENTAL PAGE 10

)1 Weatherford U.S., Inc

s e	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

** Active Wastes ******

34891 1 Active 08/01/94 Off No
scription from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



93191 1 Active 12/28/94 Off No
scription from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

001 H Active On/Off No
scription from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
Hazardous Waste Numbers: D001 D018 D039
Current Management Units: Misc Store Container 001
* Origin Codes:

he first value is considered the primary value (e.g. primary origin code).
of 12/28/1994, the next unassigned sequence number for WASTES is 6029.

er to 40 CFR Part 261 for Descriptions of EPA Hazardous Waste Numbers.

09/11/1998 10:27 9155203844 LP ENVIRONMENTAL PAGE 04

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas, 79701 O Telephone (915) 522-2133 O Telefax (915) 522-2180

September 11, 1998

Ms. Billy Charro
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 200 barrels (8400 gallons) of wastewater and sludge generated by Weatherford Enterra Inc. (Weatherford). Weatherford has generated this waste from washing/steam cleaning of oil field tools. Weatherford generates this waste at:

1921 Kermit Highway
Andrews, TX 79714
TX ID# 20261
EPA ID# TXD988044780

The transporter of this waste will be Bergstein Services of Lubbock, Texas. Bergstein Services is at:

P.O. Box 2507
Lubbock, TX 79408
(806) 744-6278
TX ID# 83346
EPA ID# TXR000006411

Enclosed is the appropriate documentation needed for authorization of disposal; copies of the certificate of waste, Texas Notice of Registration (NOR) forms, and up to date analytical data and chain of custody forms. Should you require additional information or have any questions please contact me at (915) 522-2133.

Sincerely,

Jennifer Fuqua
Project Manager

Enclosures

Cc: File 101-006

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

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

Form C-13
Originated 8/8/

Submit Origin
Plus 1 Co
to appropria
District Offi

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator: LG & E Natural
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Apex Station
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P. O. Box 388, Hobbs	8. State NM
7. Location of Material (Street Address or ULSTR) 921 W. Sanger,	Hobbs NM

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the L G & E Natural Apex Station. The waste was generated by washdown water and rain water caught from Apex Station contaminated skids. I have included a certificate of waste and a chain of custody. This material has been approved in the past.

SF COPY

9 798

SEP 1998
RECEIVED
Hobbs
OCD

Estimated Volume 100 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: President DATE: 9-17-98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Ken Marsh TELEPHONE NO. 505-393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: PET ENGR DATE: 9/12/98

APPROVED BY: SANTA FE By _____ TITLE: " DATE: "

CERTIFICATE OF WASTE STATUS

NON–EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: L G & E Natural

SOURCE: 921 West Sanger, Hobbs, NM

DISPOSAL LOCATION: Apex Station

As a condition of acceptance for disposal, I hearby certify that this waste is a non–exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non–hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 261.3.

I, the undersigned as the agent for L G & E concur with the status of the waste from the subject site.

SEP 1998
RECEIVED
Hobbs
OCD

Name

Title/Angency

Address 921 W. Sanger, Hobbs, NM

Signature Ed Sloman

Date 9-17-98

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/12/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT
Lab Number: H3115-1
Sample ID: SHOP OIL/RAIN WATER TANK

Analysis Date: 08/11/97
Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3115-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.102	102	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.106	106	0.100
Methyl Ethyl Ketone	200	0.693	<0.050	0.106	106	0.100
Chloroform	6.0	<0.005	<0.005	0.100	100	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.102	102	0.100
Benzene	0.5	0.006	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.106	106	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.103	103	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.103	103	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

% RECOVERY	
Dibromofluoromethane	82
Toluene-d8	94
Bromofluorobenzene	83

METHODS: EPA SW 846-8260, 1311

SEP 1998 RECEIVED Hobbs OCD

Burgess J. A. Cooke, Ph. D.

6/12/97
Date

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ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/09/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT
Lab Number: H3115-1
Sample ID: SHOP OIL/RAIN WATER TANK

Analysis Date: 08/09/97
Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3115-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.047	47	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.051	51	0.100
o-Cresol	200	<0.008	<0.002	0.085	85	0.100
m, p-Cresol	200	0.238	<0.002	0.158	79	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.052	52	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.088	88	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.058	58	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.098	98	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.102	102	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.104	104	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.102	102	0.100
Pentachlorophenol	100	<0.008	<0.002	0.104	104	0.100

	% RECOVERY
Fluorophenol	48
Phenol-d5	94
Nitrobenzene-d5	102
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	67
Terphenyl-d14	106

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke, Ph. D.

9/9/97
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/12/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: GP

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/09/97	08/11/97	08/09/97
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3115-1	SHOP OIL/RAIN WATER TANK	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.093	1.04	19.70	1.001	0.99	2.05	0.0091	0.092
True Value QC		0.100	1.00	20.00	1.000	1.00	2.00	0.0100	0.100
% Recovery		93	104	98	99	99	103	91	92
Relative Standard Deviation		1.4	0.7	11.6	1.2	0.8	1.1	1.6	2.4
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

08/13/97
Date

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CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
WESTERN ENVIRONMENTAL CONSULTANTS
ATTN: ALLEN HODGE
P.O. BOX 1816
HOBBS, NM 88241
FAX TO: 505-397-2597

Receiving Date: 08/08/97
Reporting Date: 08/14/97
Project Number: LG&E NAT. GAS
Project Name: APEX STATION
Project Location: HOBBS PLANT

Sampling Date: 08/08/97
Sample Type: LIQUID
Sample Condition: COOL, INTAC
Sample Received By: BC
Analyzed By: BC/GP

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		8/9/97	8/9/97	8/13/97	8/13/97
H3115-1	SHOP OIL/RAIN WATER TANK	<50	<50	6.31	>140
Quality Control		NR	0.105	7.02	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

Chemist

08/14/97
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

H3115R.XLS

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H 3115

Page ___ of ___

		BILL TO	
Company Name:	WEC	PO#:	Consultants
Project Manager:	Allen Hodge	Company:	Western Environmental
Address:	P.O. Box 1816	Attn:	Allen Hodge
City:	Hobbs State: NM Zip: 88241	Address:	P.O. Box 1816
Phone #:	392-5021	City:	Hobbs,
Fax #:	397-2597	State:	NM Zip: 88241
Project #:	L66E NAT.	Phone #:	505 392 5021
Project Name:	APEX STATION	Fax #:	505 397 2597
Project Location:	Hobbs PLANT		

LAB I.D. #	Sample I.D.	COMP(C) OR GRAB(G)	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERVATION: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TCLP VOL	TCLP SVOL	TCLP METALS	RCI							
H-3115-1	SLOP OIL/RAIN WATER TANK	G	3		X						X		8-8-97	4:30 PM	1	1	1	1							

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Sampler Relinquished:	Date: 8-8-97	Received By:	Phone Result: ☐ Yes ☐ No	Additional Fax #:
	Time: 4:30 pm		Fax Results: ☐ Yes ☐ No	
Relinquished By:	Date:	Received By: (Lab Staff)	REMARKS: THIS SAMPLE WAS TAKEN FROM THE SLOP OIL/RAIN WATER TANK THAT RAN OVER.	
	Time:			
Delivered By: (Circle One) UPS - Fed Ex - Bus - Other:		Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No	CHECKED BY: (Initials)	

SEP 10 97 10:09 NO.003 P.02

istrict I - (505) 393-6161
O. Box 1980
obbs, NM 88241-1980
istrict II - (505) 748-1283
11 S. First
rtesia, NM 88210
istrict III - (505) 334-6178
000 Rio Brazos Road
ztec, NM 87410
istrict IV - (505) 827-7131

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

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ BY W PRICE 8/18/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator B J Services 5. Originating Site Artesia Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2401 Sivley Artesia	New Mexico

9. Circle One:

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

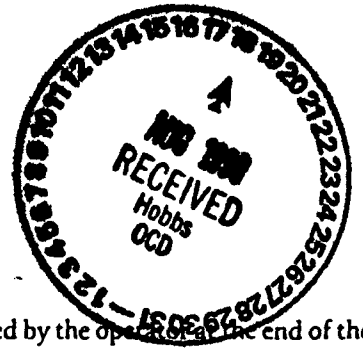
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the BJ Services Artesia Facility. The material was generated by washing dirt and mud off of service equipment. I have included a certificate of waste and a chain of custody. This material has been approved in the past.

08-002



Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 08/10/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 8/18/98

APPROVED BY: _____ TITLE: Bureau Chief DATE: 8/27/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR BJ Services

ADDRESS 2401 Sivley

GENERATING SITE Artesia Facility

COUNTY Eddy STATE NM

TYPE OF WASTE Wash Rack sludge

ESTIMATED VOLUME 100 BBL

GENERATING PROCESS washing dirt & mud off servicing equipment

REMARKS N/A

NMOCD FACILITY CRI

TRUCKING COMPANY CRI

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AUG 1998 RECEIVED Hobbs OCD

AGENT Paul Cowill
SIGNATURE

NAME Paul Cowill
PRINTED

ADDRESS 2401 Sidley
Artesia NM

DATE 8-11-98

Certificate of Analysis

Quanterra Incorporated
5307 Industrial Oaks Boulevard, Suite 160
Austin, Texas 78735

512 892-6684 Direct
512 892-6652 Fax

Quanterra
Environmental Services

ANALYTICAL REPORT

ARTESIA,NM

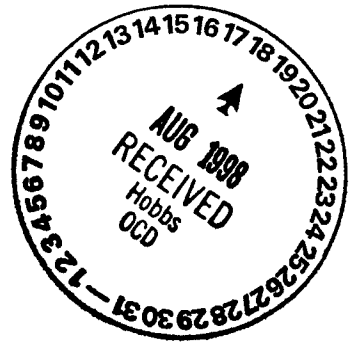
Lot #: I8A160124

DAVID BURKETT

B.J. Services Company

QUANTERRA INCORPORATED

Sandra L. Green
Project Manager



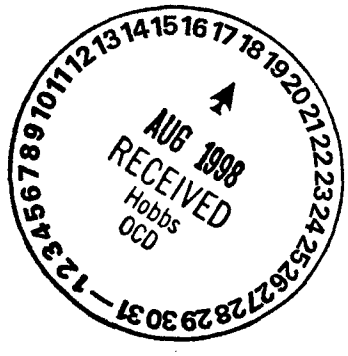
February 6, 1998

Quanterra
Environmental Services

EXECUTIVE SUMMARY - Detection Highlights

I8A160124

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
WASH RACK SLUDGE 01/14/98 08:30 001				
Flashpoint	>150	>150	deg F	SW846 1010
Total Recoverable Petroleum Hydrocarbons	19000	760	mg/kg	MCAWW 418.1
Corrosivity	7.3	1.0	No Units	SW846 9045A
Percent Moisture	34.1	0.50	%	OCLP OLM03.1



Quanterra
Environmental Services

ANALYTICAL METHODS SUMMARY

I8A160124

PARAMETER	ANALYTICAL METHOD
% Moisture, Decanted-CLP	OCLP OLM03.1
Corrosivity	SW846 9045A
Mercury in Liquid Waste (Manual Cold-Vapor)	SW846 7470A
Pensky-Martens Method for Determining Ignitability	SW846 1010
Reactive Cyanide	SW846 7.3.3
Reactive Sulfide	SW846 7.3.4
Total Recoverable Petroleum Hydrocarbons	MCAWW 418.1
TCLP BNA's	SW846 8270B
TCLP Metals (ICP)	SW846 6010A
TCLP Volatiles	SW846 8240B

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

OCLP USEPA Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.



Quanterra
Environmental Services

SAMPLE SUMMARY

I8A160124

WO #	SAMPLE#	CLIENT SAMPLE ID	DATE	TIME
CEX9V	001	WASH RACK SLUDGE	01/14/98	08:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.



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Environmental Services

B.J. SERVICES COMPANY

Client Sample ID: WASH RACK SLUDGE

TCLP GC/MS Semivolatiles

Lot-Sample #...: I8A160124-001 **Work Order #...:** CEX9V107 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98
Leach Date.....: 01/21/98 **Prep Date.....:** 01/26/98 **Analysis Date..:** 01/28/98
Leach Batch #..: P802109 **Prep Batch #...:** 8026185 **Analysis Time..:** 09:52
Dilution Factor: 1
% Moisture.....: 34

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	38	(21 - 100)
Phenol-d5	32	(10 - 94)
Nitrobenzene-d5	69	(35 - 114)
2-Fluorobiphenyl	64	(43 - 116)
2,4,6-Tribromophenol	111	(10 - 123)
Terphenyl-d14	114	(33 - 141)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)



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Environmental Services

B.J. SERVICES COMPANY

Client Sample ID: WASH RACK SLUDGE

TCLP GC/MS Volatiles

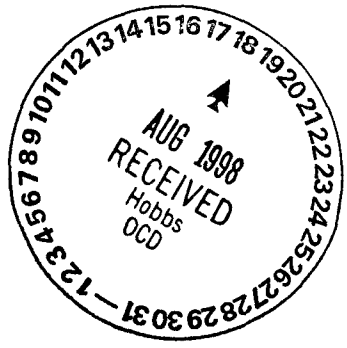
Lot-Sample #...: I8A160124-001 **Work Order #...:** CEX9V108 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98
Leach Date.....: 01/21/98 **Prep Date.....:** 02/05/98 **Analysis Date..:** 02/05/98
Leach Batch #..: P802108 **Prep Batch #...:** 8036228 **Analysis Time..:** 23:05
Dilution Factor: 1
% Moisture.....: 34

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.050	mg/L	SW846 8240B
Carbon tetrachloride	ND	0.050	mg/L	SW846 8240B
Chlorobenzene	ND	0.050	mg/L	SW846 8240B
Chloroform	ND	0.050	mg/L	SW846 8240B
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8240B
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8240B
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8240B
Tetrachloroethylene	ND	0.050	mg/L	SW846 8240B
Trichloroethylene	ND	0.050	mg/L	SW846 8240B
Vinyl chloride	ND	0.10	mg/L	SW846 8240B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(86 - 115)
1,2-Dichloroethane-d4	93	(76 - 114)
Toluene-d8	93	(88 - 110)

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)



Quanterra
Environmental Services

B.J. SERVICES COMPANY

Client Sample ID: WASH RACK SLUDGE

General Chemistry

Lot-Sample #...: I8A160124-001 **Work Order #...:** CEX9V **Matrix.....:** SOLID
Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98
% Moisture.....: 34

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Corrosivity	**7.3**	**1.0**	**No Units**	**SW846 9045A**	**01/19/98**	**8020112**
	Dilution Factor: 1					
	Analysis Time..: 13:00					
Flashpoint	**>150**	**>150**	**deg F**	**SW846 1010**	**01/23/98**	**8026151**
	Dilution Factor: 1					
	Analysis Time..: 00:00					
Percent Moisture	**34.1**	**0.50**	**%**	**OCLP OLM03.1**	**01/20-01/21/98**	**8020237**
	Dilution Factor: 1					
	Analysis Time..: 13:00					
Reactive Cyanide	ND	300	mg/kg	SW846 7.3.3	01/21-01/22/98	8022182
	Dilution Factor: 1					
	Analysis Time..: 11:16					
Reactive Sulfide	ND	300	mg/kg	SW846 7.3.4	01/21-01/22/98	8022189
	Dilution Factor: 1					
	Analysis Time..: 00:00					
Total Recoverable Petroleum Hydrocarbons	**19000**	**760**	**mg/kg**	**MCAWW 418.1**	**01/26-01/27/98**	**8026164**
	Dilution Factor: 50					
	Analysis Time..: 15:00					

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.



Quanterra
Environmental Services

B.J. SERVICES COMPANY

Client Sample ID: WASH RACK SLUDGE

TCLP Metals

Lot-Sample #...: I8A160124-001 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 8023178						
Silver	ND	1.0	mg/L	SW846 6010A	01/23-01/26/98	CEX9V109
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Arsenic	ND	1.0	mg/L	SW846 6010A	01/23-01/26/98	CEX9V10A
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Barium	ND	20.0	mg/L	SW846 6010A	01/23-01/26/98	CEX9V10C
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Cadmium	ND	0.20	mg/L	SW846 6010A	01/23-01/26/98	CEX9V10D
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Chromium	ND	1.0	mg/L	SW846 6010A	01/23-01/26/98	CEX9V10E
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Lead	ND	1.0	mg/L	SW846 6010A	01/23-01/26/98	CEX9V10F
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Selenium	ND	0.50	mg/L	SW846 6010A	01/23-01/26/98	CEX9V10G
		Dilution Factor: 2				
		Analysis Time..: 12:33				
Prep Batch #...: 8026167						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/26/98	CEX9V10H
		Dilution Factor: 1				
		Analysis Time..: 15:53				

NOTE(S):

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311 (55 FR 26986)



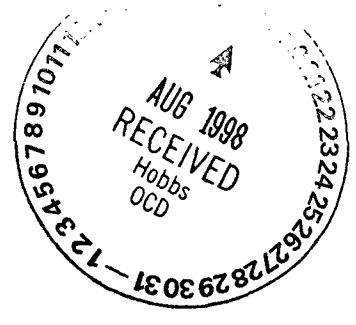
Quanterra
Environmental Services

QC DATA ASSOCIATION SUMMARY

I8A160124

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	SOLID	SW846 1010		8026151	8026034
	SOLID	MCAWW 418.1		8026164	8026045
	SOLID	SW846 6010A	P802109	8023178	8023051
	SOLID	SW846 9045A		8020112	8020009
	SOLID	OCLP OLM03.1		8020237	8021086
	SOLID	SW846 7.3.3		8022182	8022046
	SOLID	SW846 7.3.4		8022189	8022048
	SOLID	SW846 8270B	P802109	8026185	8026060
	SOLID	SW846 8240B	P802108	8036228	8037030
	SOLID	SW846 7470A	P802109	8026167	8026051



Quanterra
Environmental Services

METHOD BLANK REPORT

TCLP GC/MS Semivolatiles

Client Lot #...: I8A160124 **Work Order #...:** CF1H8109 **Matrix.....:** SOLID
MB Lot-Sample #: I8A210000-228
Leach Date.....: 01/21/98 **Prep Date.....:** 01/26/98 **Analysis Date..:** 01/27/98
Leach Batch #..: P802109 **Prep Batch #...:** 8026185 **Analysis Time..:** 20:56
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
o-Cresol	ND	0.050	mg/L	SW846 8270B
m-Cresol & p-Cresol	ND	0.10	mg/L	SW846 8270B
1,4-Dichlorobenzene	ND	0.050	mg/L	SW846 8270B
2,4-Dinitrotoluene	ND	0.050	mg/L	SW846 8270B
Hexachlorobenzene	ND	0.050	mg/L	SW846 8270B
Hexachlorobutadiene	ND	0.050	mg/L	SW846 8270B
Hexachloroethane	ND	0.050	mg/L	SW846 8270B
Nitrobenzene	ND	0.050	mg/L	SW846 8270B
Pentachlorophenol	ND	0.25	mg/L	SW846 8270B
Pyridine	ND	0.10	mg/L	SW846 8270B
2,4,5-Trichlorophenol	ND	0.050	mg/L	SW846 8270B
2,4,6-Trichlorophenol	ND	0.050	mg/L	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	42	(21 - 100)
Phenol-d5	31	(10 - 94)
Nitrobenzene-d5	71	(35 - 114)
2-Fluorobiphenyl	65	(43 - 116)
2,4,6-Tribromophenol	77	(10 - 123)
Terphenyl-d14	99	(33 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



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Environmental Services

METHOD BLANK REPORT

GC/MS Volatiles

Client Lot #...: I8A160124 **Work Order #...:** CF814101 **Matrix.....:** SOLID
MB Lot-Sample #: I8B050000-228

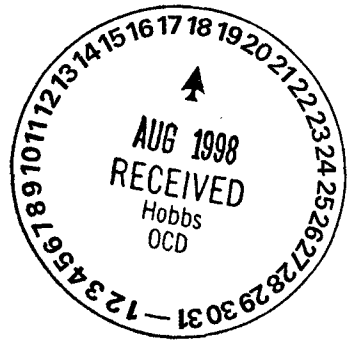
Prep Date.....: 02/05/98 **Analysis Time..:** 00:07
Analysis Date..: 02/06/98 **Prep Batch #...:** 8036228
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Benzene	ND	0.050	mg/L	SW846 8240B
Carbon tetrachloride	ND	0.050	mg/L	SW846 8240B
Chlorobenzene	ND	0.050	mg/L	SW846 8240B
Chloroform	ND	0.050	mg/L	SW846 8240B
1,2-Dichloroethane	ND	0.050	mg/L	SW846 8240B
1,1-Dichloroethylene	ND	0.050	mg/L	SW846 8240B
Methyl ethyl ketone	ND	0.20	mg/L	SW846 8240B
Tetrachloroethylene	ND	0.050	mg/L	SW846 8240B
Trichloroethylene	ND	0.050	mg/L	SW846 8240B
Vinyl chloride	ND	0.10	mg/L	SW846 8240B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	106	(86 - 115)
1,2-Dichloroethane-d4	99	(76 - 114)
Toluene-d8	103	(88 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



Quanterra
Environmental Services

METHOD BLANK REPORT

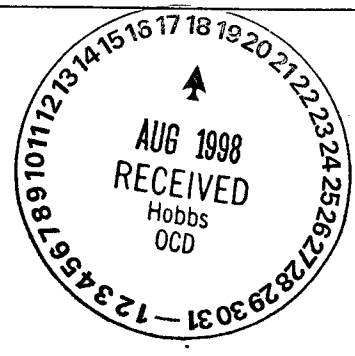
TCLP Metals

Client Lot #...: I8A160124 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: I8A210000-228 **Prep Batch #...:** 8026167						
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109						
Mercury	ND	0.0020	mg/L	SW846 7470A	01/26/98	CF1H8107
		Dilution Factor: 1				
		Analysis Time..: 15:44				
MB Lot-Sample #: I8A210000-228 **Prep Batch #...:** 8023178						
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109						
Silver	ND	0.50	mg/L	SW846 6010A	01/23-01/26/98	CF1H8108
		Dilution Factor: 1				
		Analysis Time..: 12:28				
Arsenic	ND	0.50	mg/L	SW846 6010A	01/23-01/26/98	CF1H8101
		Dilution Factor: 1				
		Analysis Time..: 12:28				
Barium	ND	10.0	mg/L	SW846 6010A	01/23-01/26/98	CF1H8102
		Dilution Factor: 1				
		Analysis Time..: 12:28				
Cadmium	ND	0.10	mg/L	SW846 6010A	01/23-01/26/98	CF1H8103
		Dilution Factor: 1				
		Analysis Time..: 12:28				
Chromium	ND	0.50	mg/L	SW846 6010A	01/23-01/26/98	CF1H8104
		Dilution Factor: 1				
		Analysis Time..: 12:28				
Lead	ND	0.50	mg/L	SW846 6010A	01/23-01/26/98	CF1H8105
		Dilution Factor: 1				
		Analysis Time..: 12:28				
Selenium	ND	0.25	mg/L	SW846 6010A	01/23-01/26/98	CF1H8106
		Dilution Factor: 1				
		Analysis Time..: 12:28				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



Quanterra
Environmental Services

METHOD BLANK REPORT

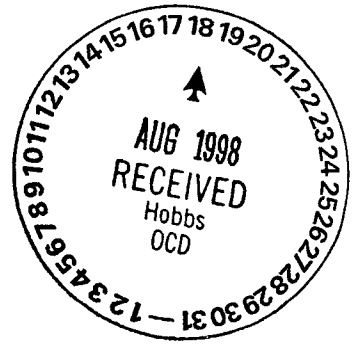
General Chemistry

Client Lot #...: I8A160124 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Reactive Cyanide		Work Order #: CF216101		MB Lot-Sample #:	I8A220000-182	
	ND	200	mg/kg	SW846 7.3.3	01/21-01/22/98	8022182
		Dilution Factor: 1				
		Analysis Time..: 11:16				
Reactive Sulfide		Work Order #: CF22G101		MB Lot-Sample #:	I8A220000-189	
	ND	200	mg/kg	SW846 7.3.4	01/21-01/22/98	8022189
		Dilution Factor: 1				
		Analysis Time..: 14:00				
Total Recoverable Petroleum Hydrocarbons		Work Order #: CF3EH101		MB Lot-Sample #:	I8A260000-164	
	ND	10	mg/kg	MCAWW 418.1	01/26-01/27/98	8026164
		Dilution Factor: 1				
		Analysis Time..: 15:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: I8A160124 **Work Order #...:** CF3FX101 **Matrix.....:** SOLID
LCS Lot-Sample#: I8A260000-185
Prep Date.....: 01/26/98 **Analysis Date..:** 01/27/98
Prep Batch #...: 8026185 **Analysis Time..:** 21:26
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Pyridine	**0.40**	**0.14**	**mg/L**	**35**	**SW846 8270B**
1,4-Dichlorobenzene	**0.40**	**0.24**	**mg/L**	**60**	**SW846 8270B**
o-Cresol	**0.40**	**0.23**	**mg/L**	**58**	**SW846 8270B**
m-Cresol & p-Cresol	**0.80**	**0.41**	**mg/L**	**51**	**SW846 8270B**
Hexachloroethane	**0.40**	**0.23**	**mg/L**	**57**	**SW846 8270B**
Nitrobenzene	**0.40**	**0.24**	**mg/L**	**61**	**SW846 8270B**
Hexachlorobutadiene	**0.40**	**0.23**	**mg/L**	**57**	**SW846 8270B**
2,4,6-Trichlorophenol	**0.40**	**0.26**	**mg/L**	**64**	**SW846 8270B**
2,4,5-Trichlorophenol	**0.40**	**0.24**	**mg/L**	**60**	**SW846 8270B**
2,4-Dinitrotoluene	**0.40**	**0.25**	**mg/L**	**62**	**SW846 8270B**
Hexachlorobenzene	**0.40**	**0.37**	**mg/L**	**93**	**SW846 8270B**
Pentachlorophenol	**0.40**	**0.37**	**mg/L**	**93**	**SW846 8270B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	38	(21 - 100)
Phenol-d5	27	(10 - 94)
Nitrobenzene-d5	60	(35 - 114)
2-Fluorobiphenyl	55	(43 - 116)
2,4,6-Tribromophenol	72	(10 - 123)
Terphenyl-d14	102	(33 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



Quanterra
Environmental Services

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Semivolatiles

Client Lot #...: I8A160124 **Work Order #...:** CF3FX101 **Matrix.....:** SOLID
LCS Lot-Sample#: I8A260000-185
Prep Date.....: 01/26/98 **Analysis Date..:** 01/27/98
Prep Batch #...: 8026185 **Analysis Time..:** 21:26
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Pyridine	35	(1.0- 144)	SW846 8270B
1,4-Dichlorobenzene	60	(26 - 112)	SW846 8270B
o-Cresol	58	(21 - 137)	SW846 8270B
m-Cresol & p-Cresol	51	(19 - 126)	SW846 8270B
Hexachloroethane	57	(26 - 102)	SW846 8270B
Nitrobenzene	61	(42 - 120)	SW846 8270B
Hexachlorobutadiene	57	(33 - 111)	SW846 8270B
2,4,6-Trichlorophenol	64	(19 - 122)	SW846 8270B
2,4,5-Trichlorophenol	60	(29 - 123)	SW846 8270B
2,4-Dinitrotoluene	62	(31 - 106)	SW846 8270B
Hexachlorobenzene	93	(42 - 120)	SW846 8270B
Pentachlorophenol	93	(12 - 156)	SW846 8270B

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	38	(21 - 100)
Phenol-d5	27	(10 - 94)
Nitrobenzene-d5	60	(35 - 114)
2-Fluorobiphenyl	55	(43 - 116)
2,4,6-Tribromophenol	72	(10 - 123)
Terphenyl-d14	102	(33 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



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LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Volatiles

Client Lot #...: I8A160124 **Work Order #...:** CF814102 **Matrix.....:** SOLID
LCS Lot-Sample#: I8B050000-228
Prep Date.....: 02/05/98 **Analysis Date..:** 02/05/98
Prep Batch #...: 8036228 **Analysis Time..:** 23:36
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Vinyl chloride	**0.50**	**0.47**	**mg/L**	**94**	**SW846 8240B**
1,1-Dichloroethylene	**0.50**	**0.53**	**mg/L**	**106**	**SW846 8240B**
Chloroform	**0.50**	**0.51**	**mg/L**	**103**	**SW846 8240B**
1,2-Dichloroethane	**0.50**	**0.52**	**mg/L**	**105**	**SW846 8240B**
Methyl ethyl ketone	**0.50**	**0.41**	**mg/L**	**82**	**SW846 8240B**
Carbon tetrachloride	**0.50**	**0.49**	**mg/L**	**98**	**SW846 8240B**
Trichloroethylene	**0.50**	**0.52**	**mg/L**	**103**	**SW846 8240B**
Benzene	**0.50**	**0.52**	**mg/L**	**104**	**SW846 8240B**
Tetrachloroethylene	**0.50**	**0.53**	**mg/L**	**105**	**SW846 8240B**
Chlorobenzene	**0.50**	**0.53**	**mg/L**	**107**	**SW846 8240B**
1,4-Dichlorobenzene	**0.50**	**0.52**	**mg/L**	**105**	**SW846 8240B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	102	(86 - 115)
1,2-Dichloroethane-d4	97	(76 - 114)
Toluene-d8	100	(88 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



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LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC/MS Volatiles

Client Lot #...: I8A160124 **Work Order #...:** CF814102 **Matrix.....:** SOLID
LCS Lot-Sample#: I8B050000-228
Prep Date.....: 02/05/98 **Analysis Date..:** 02/05/98
Prep Batch #...: 8036228 **Analysis Time..:** 23:36
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Vinyl chloride	**94**	**(1.0- 251)**	**SW846 8240B**
1,1-Dichloroethylene	**106**	**(59 - 155)**	**SW846 8240B**
Chloroform	**103**	**(51 - 136)**	**SW846 8240B**
1,2-Dichloroethane	**105**	**(49 - 155)**	**SW846 8240B**
Methyl ethyl ketone	**82**	**(25 - 250)**	**SW846 8240B**
Carbon tetrachloride	**98**	**(71 - 240)**	**SW846 8240B**
Trichloroethylene	**103**	**(71 - 157)**	**SW846 8240B**
Benzene	**104**	**(37 - 151)**	**SW846 8240B**
Tetrachloroethylene	**105**	**(46 - 157)**	**SW846 8240B**
Chlorobenzene	**107**	**(37 - 160)**	**SW846 8240B**
1,4-Dichlorobenzene	**105**	**(75 - 137)**	**SW846 8240B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	102	(86 - 115)
1,2-Dichloroethane-d4	97	(76 - 114)
Toluene-d8	100	(88 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



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LABORATORY CONTROL SAMPLE DATA REPORT

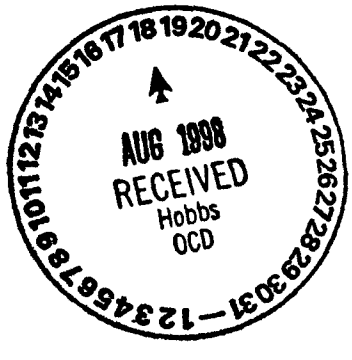
TCLP Metals

Client Lot #...: I8A160124 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: I8A230000-178 **Prep Batch #...:** 8023178							
Arsenic	2.0	2.1	mg/L	106	SW846 6010A	01/23-01/26/98	CF2HC101
		Dilution Factor: 1					
		Analysis Time..: 12:30					
Barium	2.0	2.1	mg/L	105	SW846 6010A	01/23-01/26/98	CF2HC102
		Dilution Factor: 1					
		Analysis Time..: 12:30					
Cadmium	0.050	0.050	mg/L	101	SW846 6010A	01/23-01/26/98	CF2HC103
		Dilution Factor: 1					
		Analysis Time..: 12:30					
Chromium	0.20	0.21	mg/L	104	SW846 6010A	01/23-01/26/98	CF2HC104
		Dilution Factor: 1					
		Analysis Time..: 12:30					
Lead	0.50	0.51	mg/L	102	SW846 6010A	01/23-01/26/98	CF2HC105
		Dilution Factor: 1					
		Analysis Time..: 12:30					
Selenium	2.0	2.1	mg/L	105	SW846 6010A	01/23-01/26/98	CF2HC106
		Dilution Factor: 1					
		Analysis Time..: 12:30					
Silver	0.050	0.046	mg/L	93	SW846 6010A	01/23-01/26/98	CF2HC107
		Dilution Factor: 1					
		Analysis Time..: 12:30					
LCS Lot-Sample#: I8A260000-167 **Prep Batch #...:** 8026167							
Mercury	0.0050	0.0053	mg/L	105	SW846 7470A	01/26/98	CF3F0101
		Dilution Factor: 1					
		Analysis Time..: 15:46					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



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LABORATORY CONTROL SAMPLE EVALUATION REPORT

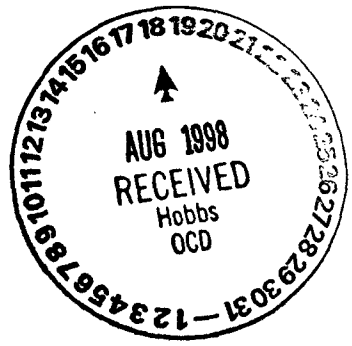
TCLP Metals

Client Lot #...: I8A160124 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: I8A230000-178 **Prep Batch #...:** 8023178					
Arsenic	106	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC101
		Dilution Factor: 1			
		Analysis Time..: 12:30			
Barium	105	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC102
		Dilution Factor: 1			
		Analysis Time..: 12:30			
Cadmium	101	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC103
		Dilution Factor: 1			
		Analysis Time..: 12:30			
Chromium	104	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC104
		Dilution Factor: 1			
		Analysis Time..: 12:30			
Lead	102	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC105
		Dilution Factor: 1			
		Analysis Time..: 12:30			
Selenium	105	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC106
		Dilution Factor: 1			
		Analysis Time..: 12:30			
Silver	93	(80 - 120)	SW846 6010A	01/23-01/26/98	CF2HC107
		Dilution Factor: 1			
		Analysis Time..: 12:30			
LCS Lot-Sample#: I8A260000-167 **Prep Batch #...:** 8026167					
Mercury	105	(80 - 120)	SW846 7470A	01/26/98	CF3F0101
		Dilution Factor: 1			
		Analysis Time..: 15:46			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



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LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

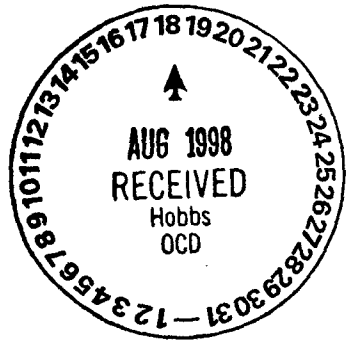
Client Lot #...: I8A160124 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Flashpoint			Work Order #: CF3CV101 LCS Lot-Sample#: I8A260000-151				
	81	80	deg F	98	SW846 1010	01/23-01/26/98	8026151
			Dilution Factor: 1				
			Analysis Time..: 14:00				
Reactive Cyanide			Work Order #: CF216102 LCS Lot-Sample#: I8A220000-182				
	40	0.19 N	mg/kg	0.46	SW846 7.3.3	01/21-01/22/98	8022182
			Dilution Factor: 1				
			Analysis Time..: 11:16				
Total Recoverable Petroleum Hydrocarbons			Work Order #: CF3EH102 LCS Lot-Sample#: I8A260000-164				
	250	240	mg/kg	96	MCAWW 418.1	01/26-01/27/98	8026164
			Dilution Factor: 1				
			Analysis Time..: 15:00				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.



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Environmental Services

LABORATORY CONTROL SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I8A160124 **Matrix.....:** SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Flashpoint		Work Order #: CF3CV101	LCS Lot-Sample#: I8A260000-151		
	98	(95 - 105)	SW846 1010	01/23-01/26/98	8026151
		Dilution Factor: 1			
		Analysis Time..: 14:00			
Reactive Cyanide		Work Order #: CF216102	LCS Lot-Sample#: I8A220000-182		
	0.46 N	(1.0- 64)	SW846 7.3.3	01/21-01/22/98	8022182
		Dilution Factor: 1			
		Analysis Time..: 11:16			
Total Recoverable Petroleum Hydrocarbons		Work Order #: CF3EH102	LCS Lot-Sample#: I8A260000-164		
	96	(70 - 130)	MCAWW 418.1	01/26-01/27/98	8026164
		Dilution Factor: 1			
		Analysis Time..: 15:00			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.



Quanterra
Environmental Services

MATRIX SPIKE SAMPLE DATA REPORT

TCLP Metals

Client Lot #...: I8A160124 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 10:10 **Date Received..:** 01/15/98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: I8A160124-001 **Prep Batch #...:** 8023178									
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109									
Silver									
	ND	1.0	0.98	mg/L	97		SW846 6010A	01/23-01/26/98	CEX9V114
	ND	1.0	0.96	mg/L	95	1.8	SW846 6010A	01/23-01/26/98	CEX9V115
			Dilution Factor: 2						
			Analysis Time..: 12:37						
Arsenic									
	ND	5.0	5.1	mg/L	102		SW846 6010A	01/23-01/26/98	CEX9V10P
	ND	5.0	5.0	mg/L	100	2.4	SW846 6010A	01/23-01/26/98	CEX9V10Q
			Dilution Factor: 2						
			Analysis Time..: 12:37						
Barium									
	ND	50.0	49.3	mg/L	97		SW846 6010A	01/23-01/26/98	CEX9V10R
	ND	50.0	48.7	mg/L	96	1.1	SW846 6010A	01/23-01/26/98	CEX9V10T
			Dilution Factor: 2						
			Analysis Time..: 12:37						
Cadmium									
	ND	1.0	0.99	mg/L	97		SW846 6010A	01/23-01/26/98	CEX9V10U
	ND	1.0	0.98	mg/L	97	0.80	SW846 6010A	01/23-01/26/98	CEX9V10V
			Dilution Factor: 2						
			Analysis Time..: 12:37						
Chromium									
	ND	5.0	4.9	mg/L	98		SW846 6010A	01/23-01/26/98	CEX9V10W
	ND	5.0	4.9	mg/L	98	0.78	SW846 6010A	01/23-01/26/98	CEX9V10X
			Dilution Factor: 2						
			Analysis Time..: 12:37						
Lead									
	ND	5.0	4.9	mg/L	98		SW846 6010A	01/23-01/26/98	CEX9V110
	ND	5.0	4.9	mg/L	99	0.95	SW846 6010A	01/23-01/26/98	CEX9V111
			Dilution Factor: 2						
			Analysis Time..: 12:37						
Selenium									
	ND	1.0	0.96	mg/L	96		SW846 6010A	01/23-01/26/98	CEX9V112
	ND	1.0	0.93	mg/L	93	2.9	SW846 6010A	01/23-01/26/98	CEX9V113
			Dilution Factor: 2						
			Analysis Time..: 12:37						

MS Lot-Sample #: I8A160124-001 **Prep Batch #...:** 8026167
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109
(Continued on next page)

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MATRIX SPIKE SAMPLE DATA REPORT

TCLP Metals

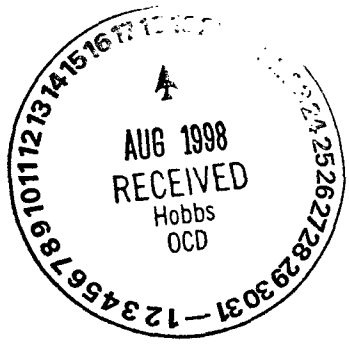
Client Lot #...: I8A160124 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 10:10 **Date Received..:** 01/15/98

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Mercury									
	ND	0.001	0.0010	mg/L	90		SW846 7470A	01/26/98	CEX9V119
	ND	0.001	0.0010	mg/L	89	1.0	SW846 7470A	01/26/98	CEX9V11A

Dilution Factor: 1
Analysis Time..: 15:55

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.



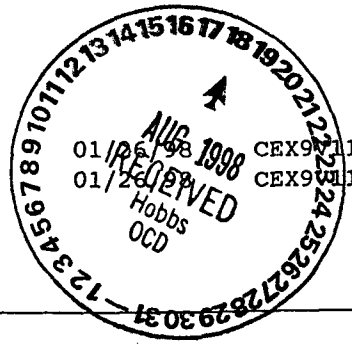
Quanterra
Environmental Services

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP Metals

Client Lot #...: I8A160124 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 10:10 **Date Received..:** 01/15/98

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: I8A160124-001 **Prep Batch #...:** 8023178							
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109							
Silver	97	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V114
	95	(80 - 120)	1.8	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V115
		Dilution Factor: 2					
		Analysis Time..: 12:37					
Arsenic	102	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V10P
	100	(80 - 120)	2.4	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V10Q
		Dilution Factor: 2					
		Analysis Time..: 12:37					
Barium	97	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V10R
	96	(80 - 120)	1.1	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V10T
		Dilution Factor: 2					
		Analysis Time..: 12:37					
Cadmium	97	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V10U
	97	(80 - 120)	0.80	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V10V
		Dilution Factor: 2					
		Analysis Time..: 12:37					
Chromium	98	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V10W
	98	(80 - 120)	0.78	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V10X
		Dilution Factor: 2					
		Analysis Time..: 12:37					
Lead	98	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V110
	99	(80 - 120)	0.95	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V111
		Dilution Factor: 2					
		Analysis Time..: 12:37					
Selenium	96	(80 - 120)			SW846 6010A	01/23-01/26/98	CEX9V112
	93	(80 - 120)	2.9	(0-20)	SW846 6010A	01/23-01/26/98	CEX9V113
		Dilution Factor: 2					
		Analysis Time..: 12:37					
MS Lot-Sample #: I8A160124-001 **Prep Batch #...:** 8026167							
Leach Date.....: 01/21/98 **Leach Batch #..:** P802109							
Mercury	90	(75 - 125)			SW846 7470A	01/26/98	CEX9V119
	89	(75 - 125)	1.0	(0-20)	SW846 7470A	01/26/98	CEX9V11A
		Dilution Factor: 1					
		Analysis Time..: 15:55					



NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quanterra
Environmental Services

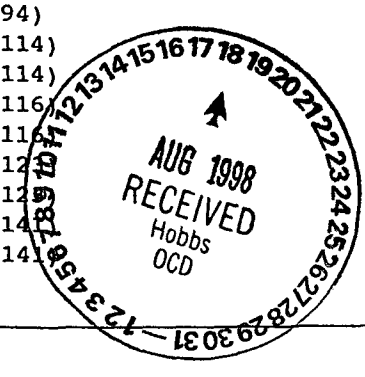
MATRIX SPIKE SAMPLE DATA REPORT

TCLP GC/MS Semivolatiles

Client Lot #...:	I8A160124	**Work Order #...:**	CEX9V11C-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	I8A160124-001		CEX9V11D-MSD		
Date Sampled...:	01/14/98 08:30	**Date Received..:**	01/16/98		
Leach Date.....:	01/21/98	**Prep Date.....:**	01/26/98	**Analysis Date..:**	01/27/98
Leach Batch #..:	P802109	**Prep Batch #...:**	8026185	**Analysis Time..:**	22:26
Dilution Factor:	1				

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
o-Cresol	**ND**	**0.40**	**0.28**	**mg/L**	**71**		**SW846 8270B**
	ND	**0.40**	**0.29**	**mg/L**	**72**	**1.9**	**SW846 8270B**
m-Cresol & p-Cresol	**ND**	**0.80**	**0.51**	**mg/L**	**64**		**SW846 8270B**
	ND	**0.80**	**0.54**	**mg/L**	**67**	**4.9**	**SW846 8270B**
1,4-Dichlorobenzene	**ND**	**0.40**	**0.28**	**mg/L**	**70**		**SW846 8270B**
	ND	**0.40**	**0.28**	**mg/L**	**71**	**0.93**	**SW846 8270B**
2,4-Dinitrotoluene	**ND**	**0.40**	**0.35**	**mg/L**	**87**		**SW846 8270B**
	ND	**0.40**	**0.33**	**mg/L**	**82**	**5.8**	**SW846 8270B**
Hexachlorobenzene	**ND**	**0.40**	**0.37**	**mg/L**	**92**		**SW846 8270B**
	ND	**0.40**	**0.35**	**mg/L**	**86**	**6.5**	**SW846 8270B**
Hexachlorobutadiene	**ND**	**0.40**	**0.29**	**mg/L**	**72**		**SW846 8270B**
	ND	**0.40**	**0.30**	**mg/L**	**74**	**3.1**	**SW846 8270B**
Hexachloroethane	**ND**	**0.40**	**0.28**	**mg/L**	**69**		**SW846 8270B**
	ND	**0.40**	**0.28**	**mg/L**	**70**	**1.3**	**SW846 8270B**
Nitrobenzene	**ND**	**0.40**	**0.32**	**mg/L**	**79**		**SW846 8270B**
	ND	**0.40**	**0.32**	**mg/L**	**80**	**0.80**	**SW846 8270B**
Pentachlorophenol	**ND**	**0.40**	**0.43**	**mg/L**	**107**		**SW846 8270B**
	ND	**0.40**	**0.41**	**mg/L**	**102**	**4.4**	**SW846 8270B**
Pyridine	**ND**	**0.40**	**0.19**	**mg/L**	**48**		**SW846 8270B**
	ND	**0.40**	**0.20**	**mg/L**	**49**	**2.6**	**SW846 8270B**
2,4,5-Trichlorophenol	**ND**	**0.40**	**0.39**	**mg/L**	**97**		**SW846 8270B**
	ND	**0.40**	**0.36**	**mg/L**	**90**	**7.3**	**SW846 8270B**
2,4,6-Trichlorophenol	**ND**	**0.40**	**0.36**	**mg/L**	**90**		**SW846 8270B**
	ND	**0.40**	**0.34**	**mg/L**	**86**	**4.3**	**SW846 8270B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	46	(21 - 100)
	46	(21 - 100)
Phenol-d5	34	(10 - 94)
	34	(10 - 94)
Nitrobenzene-d5	78	(35 - 114)
	79	(35 - 114)
2-Fluorobiphenyl	73	(43 - 116)
	74	(43 - 116)
2,4,6-Tribromophenol	102	(10 - 123)
	95	(10 - 123)
Terphenyl-d14	101	(33 - 141)
	99	(33 - 141)



NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Quanterra
Environmental Services

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Semivolatiles

Client Lot #...:	I8A160124	**Work Order #...:**	CEX9V11C-MS	**Matrix.....:**	SOLID
MS Lot-Sample #:	I8A160124-001		CEX9V11D-MSD		
Date Sampled...:	01/14/98 08:30	**Date Received..:**	01/16/98		
Leach Date.....:	01/21/98	**Prep Date.....:**	01/26/98	**Analysis Date..:**	01/27/98
Leach Batch #..:	P802109	**Prep Batch #...:**	8026185	**Analysis Time..:**	22:26
Dilution Factor:	1				

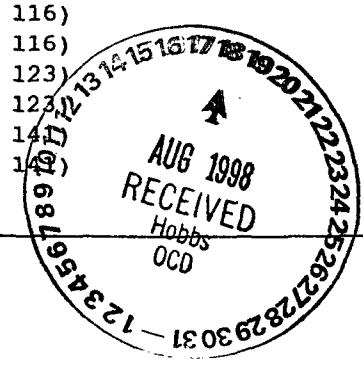
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
o-Cresol	**71**	**(21 - 137)**			**SW846 8270B**
	72	**(21 - 137)**	**1.9**	**(0-70)**	**SW846 8270B**
m-Cresol & p-Cresol	**64**	**(19 - 126)**			**SW846 8270B**
	67	**(19 - 126)**	**4.9**	**(0-94)**	**SW846 8270B**
1,4-Dichlorobenzene	**70**	**(26 - 112)**			**SW846 8270B**
	71	**(26 - 112)**	**0.93**	**(0-40)**	**SW846 8270B**
2,4-Dinitrotoluene	**87**	**(31 - 106)**			**SW846 8270B**
	82	**(31 - 106)**	**5.8**	**(0-55)**	**SW846 8270B**
Hexachlorobenzene	**92**	**(42 - 120)**			**SW846 8270B**
	86	**(42 - 120)**	**6.5**	**(0-39)**	**SW846 8270B**
Hexachlorobutadiene	**72**	**(33 - 111)**			**SW846 8270B**
	74	**(33 - 111)**	**3.1**	**(0-40)**	**SW846 8270B**
Hexachloroethane	**69**	**(26 - 102)**			**SW846 8270B**
	70	**(26 - 102)**	**1.3**	**(0-44)**	**SW846 8270B**
Nitrobenzene	**79**	**(42 - 120)**			**SW846 8270B**
	80	**(42 - 120)**	**0.80**	**(0-40)**	**SW846 8270B**
Pentachlorophenol	**107**	**(12 - 156)**			**SW846 8270B**
	102	**(12 - 156)**	**4.4**	**(0-76)**	**SW846 8270B**
Pyridine	**48**	**(1.0- 144)**			**SW846 8270B**
	49	**(1.0- 144)**	**2.6**	**(0-95)**	**SW846 8270B**
2,4,5-Trichlorophenol	**97**	**(29 - 123)**			**SW846 8270B**
	90	**(29 - 123)**	**7.3**	**(0-63)**	**SW846 8270B**
2,4,6-Trichlorophenol	**90**	**(19 - 122)**			**SW846 8270B**
	86	**(19 - 122)**	**4.3**	**(0-64)**	**SW846 8270B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	46	(21 - 100)
	46	(21 - 100)
Phenol-d5	34	(10 - 94)
	34	(10 - 94)
Nitrobenzene-d5	78	(35 - 114)
	79	(35 - 114)
2-Fluorobiphenyl	73	(43 - 116)
	74	(43 - 116)
2,4,6-Tribromophenol	102	(10 - 123)
	95	(10 - 123)
Terphenyl-d14	101	(33 - 141)
	99	(33 - 141)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



Quanterra
Environmental Services

MATRIX SPIKE SAMPLE DATA REPORT

TCLP GC/MS Volatiles

Client Lot #...: I8A160124 **Work Order #...:** CEX9V11E-MS **Matrix.....:** SOLID
MS Lot-Sample #: I8A160124-001 CEX9V11F-MSD
Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98
Leach Date.....: 01/21/98 **Prep Date.....:** 02/05/98 **Analysis Date..:** 02/06/98
Leach Batch #..: P802108 **Prep Batch #...:** 8036228 **Analysis Time..:** 00:39
Dilution Factor: 1

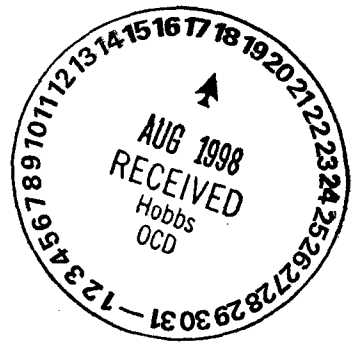
PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCENT RECOVERY	RPD	METHOD
Benzene	**ND**	**0.50**	**0.51**	**mg/L**	**101**		**SW846 8240B**
	ND	**0.50**	**0.50**	**mg/L**	**99**	**2.4**	**SW846 8240B**
Carbon tetrachloride	**ND**	**0.50**	**0.45**	**mg/L**	**91**		**SW846 8240B**
	ND	**0.50**	**0.45**	**mg/L**	**89**	**1.8**	**SW846 8240B**
Chlorobenzene	**ND**	**0.50**	**0.51**	**mg/L**	**102**		**SW846 8240B**
	ND	**0.50**	**0.51**	**mg/L**	**101**	**0.05**	**SW846 8240B**
Chloroform	**ND**	**0.50**	**0.49**	**mg/L**	**97**		**SW846 8240B**
	ND	**0.50**	**0.48**	**mg/L**	**96**	**1.0**	**SW846 8240B**
1,2-Dichloroethane	**ND**	**0.50**	**0.53**	**mg/L**	**106**		**SW846 8240B**
	ND	**0.50**	**0.53**	**mg/L**	**105**	**0.18**	**SW846 8240B**
1,1-Dichloroethylene	**ND**	**0.50**	**0.43**	**mg/L**	**85**		**SW846 8240B**
	ND	**0.50**	**0.42**	**mg/L**	**84**	**1.5**	**SW846 8240B**
Methyl ethyl ketone	**ND**	**0.50**	**0.50**	**mg/L**	**99**		**SW846 8240B**
	ND	**0.50**	**0.47**	**mg/L**	**93**	**5.9**	**SW846 8240B**
Tetrachloroethylene	**ND**	**0.50**	**0.51**	**mg/L**	**102**		**SW846 8240B**
	ND	**0.50**	**0.49**	**mg/L**	**99**	**3.2**	**SW846 8240B**
Trichloroethylene	**ND**	**0.50**	**0.49**	**mg/L**	**99**		**SW846 8240B**
	ND	**0.50**	**0.48**	**mg/L**	**96**	**3.2**	**SW846 8240B**
Vinyl chloride	**ND**	**0.50**	**0.51**	**mg/L**	**103**		**SW846 8240B**
	ND	**0.50**	**0.49**	**mg/L**	**97**	**5.4**	**SW846 8240B**
1,4-Dichlorobenzene	**ND**	**0.50**	**0.51**	**mg/L**	**101**		**SW846 8240B**
	ND	**0.50**	**0.49**	**mg/L**	**98**	**3.1**	**SW846 8240B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(86 - 115)
	101	(86 - 115)
1,2-Dichloroethane-d4	99	(76 - 114)
	101	(76 - 114)
Toluene-d8	94	(88 - 110)
	97	(88 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



Quanterra
Environmental Services

MATRIX SPIKE SAMPLE EVALUATION REPORT

TCLP GC/MS Volatiles

Client Lot #...: I8A160124 **Work Order #...:** CEX9V11E-MS **Matrix.....:** SOLID
MS Lot-Sample #: I8A160124-001 CEX9V11F-MSD
Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98
Leach Date.....: 01/21/98 **Prep Date.....:** 02/05/98 **Analysis Date..:** 02/06/98
Leach Batch #..: P802108 **Prep Batch #...:** 8036228 **Analysis Time..:** 00:39
Dilution Factor: 1

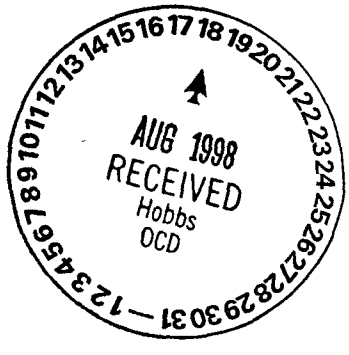
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Benzene	**101**	**(37 - 151)**			**SW846 8240B**
	99	**(37 - 151)**	**2.4**	**(0-30)**	**SW846 8240B**
Carbon tetrachloride	**91**	**(71 - 240)**			**SW846 8240B**
	89	**(71 - 240)**	**1.8**	**(0-30)**	**SW846 8240B**
Chlorobenzene	**102**	**(37 - 160)**			**SW846 8240B**
	101	**(37 - 160)**	**0.05**	**(0-30)**	**SW846 8240B**
Chloroform	**97**	**(51 - 136)**			**SW846 8240B**
	96	**(51 - 136)**	**1.0**	**(0-30)**	**SW846 8240B**
1,2-Dichloroethane	**106**	**(49 - 155)**			**SW846 8240B**
	105	**(49 - 155)**	**0.18**	**(0-30)**	**SW846 8240B**
1,1-Dichloroethylene	**85**	**(59 - 155)**			**SW846 8240B**
	84	**(59 - 155)**	**1.5**	**(0-30)**	**SW846 8240B**
Methyl ethyl ketone	**99**	**(25 - 250)**			**SW846 8240B**
	93	**(25 - 250)**	**5.9**	**(0-30)**	**SW846 8240B**
Tetrachloroethylene	**102**	**(46 - 157)**			**SW846 8240B**
	99	**(46 - 157)**	**3.2**	**(0-30)**	**SW846 8240B**
Trichloroethylene	**99**	**(71 - 157)**			**SW846 8240B**
	96	**(71 - 157)**	**3.2**	**(0-30)**	**SW846 8240B**
Vinyl chloride	**103**	**(1.0- 251)**			**SW846 8240B**
	97	**(1.0- 251)**	**5.4**	**(0-30)**	**SW846 8240B**
1,4-Dichlorobenzene	**101**	**(75 - 137)**			**SW846 8240B**
	98	**(75 - 137)**	**3.1**	**(0-30)**	**SW846 8240B**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
4-Bromofluorobenzene	100	(86 - 115)
	101	(86 - 115)
1,2-Dichloroethane-d4	99	(76 - 114)
	101	(76 - 114)
Toluene-d8	94	(88 - 110)
	97	(88 - 110)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters



Quanterra
Environmental Services

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: I8A160124 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 10:10 **Date Received..:** 01/15/98

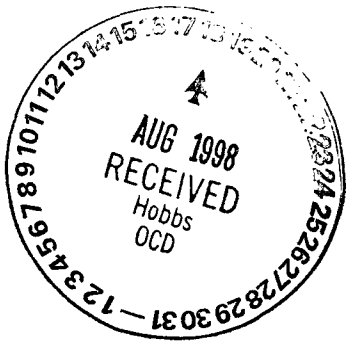
PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Reactive Cyanide			WO#: CEX9V10K-MS/CEX9V10L-MSD				MS Lot-Sample #: I8A160124-001		
	ND	61	8.0	mg/kg	12		SW846 7.3.3	01/21-01/22/98	8022182
	ND	61	7.9	mg/kg	11	2.2	SW846 7.3.3	01/21-01/22/98	8022182
			Dilution Factor: 1						
			Analysis Time..: 11:16						
Total Recoverable Petroleum Hydrocarbons			WO#: CEX9V117-MS/CEX9V118-MSD				MS Lot-Sample #: I8A160124-001		
	19000	380	17000 NC	mg/kg			MCAWW 418.1	01/26-01/27/98	8026164
	19000	380	15000 NC	mg/kg			MCAWW 418.1	01/26-01/27/98	8026164
			Dilution Factor: 1						
			Analysis Time..: 15:00						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and RPD were not calculated.



Quanterra
Environmental Services

MATRIX SPIKE SAMPLE EVALUATION REPORT

General Chemistry

Client Lot #...: I8A160124 **Matrix.....:** SOLID
Date Sampled...: 01/14/98 10:10 **Date Received..:** 01/15/98

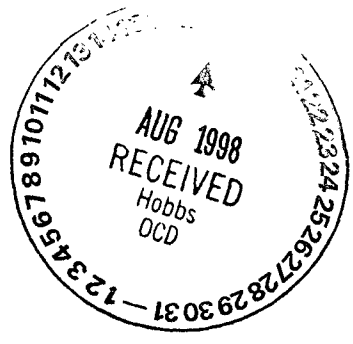
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Reactive Cyanide		WO#: CEX9V10K-MS/CEX9V10L-MSD				MS Lot-Sample #: I8A160124-001	
	12	(1.0 - 64)			SW846 7.3.3	01/21-01/22/98	8022182
	11	(1.0 - 64)	2.2	(0-213)	SW846 7.3.3	01/21-01/22/98	8022182
		Dilution Factor: 1					
		Analysis Time..: 11:16					
Total Recoverable Petroleum Hydrocarbons		WO#: CEX9V117-MS/CEX9V118-MSD				MS Lot-Sample #: I8A160124-001	
	NC	(70 - 130)			MCAWW 418.1	01/26-01/27/98	8026164
	NC	(70 - 130)		(0-30)	MCAWW 418.1	01/26-01/27/98	8026164
		Dilution Factor: 1					
		Analysis Time..: 15:00					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

NC The recovery and RPD were not calculated.



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Environmental Services

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

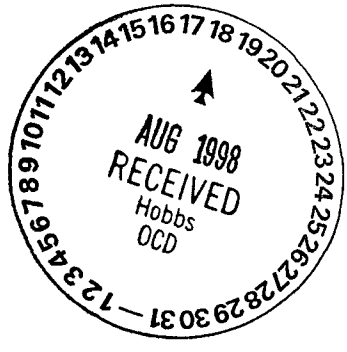
Client Lot #...: I8A160124 **Work Order #...:** CEWL7-SMP CEWL7-DUP **Matrix.....:** SOLID

Date Sampled...: 01/14/98 10:10 **Date Received..:** 01/15/98

% Moisture.....: 15

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture						SD Lot-Sample #: I8A150110-020		
	14.8	15.4	%	4.0	(0-14)	OCLP OLM03.1	01/20-01/21/98	8020237

Dilution Factor: 1
Analysis Time..: 00:00



Quanterra
Environmental Services

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: I8A160124 **Work Order #...:** CEX9V-SMP, CEX9V-DUP **Matrix.....:** SOLID

Date Sampled...: 01/14/98 08:30 **Date Received..:** 01/16/98

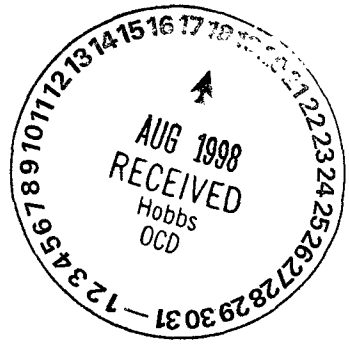
% Moisture.....: 34

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Reactive Cyanide						SD Lot-Sample #: I8A160124-001		
	ND	0.13	mg/kg	154	(0-213)	SW846 7.3.3	01/21-01/22/98	8022187
		Dilution Factor: 1						
		Analysis Time..: 11:16						
Reactive Sulfide						SD Lot-Sample #: I8A160124-001		
	ND	ND	mg/kg	0	(0-20)	SW846 7.3.4	01/21-01/22/98	8022189
		Dilution Factor: 1						
		Analysis Time..: 00:00						
Flashpoint						SD Lot-Sample #: I8A160124-001		
	>150	>150	deg F	0.0	(0-20)	SW846 1010	01/23/98/22/98	8026151
		Dilution Factor: 1						
		Analysis Time..: 00:00						

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.



Chain of Custody Record

Quanterra

CHAIN OF CUSTODY NUMBER

000708-001

QUA-4149 (1097)

Client	Project Manager	Date	Page 1 of 1
B.J.SERVICES	DAVID BURKETT	12/16/1997	
Address 2401 SIVLEY	**Telephone Number (Area Code)/Fax Number** (505) 746-9247 / (281) 369-7528	**Lab Location** QUANTERRA - AUSTIN	
City ARTESIA	**State** NM	**Zip Code** 88210	**Site Contact** MIKE WIGGINS
Project Number/Name ARTESIA,NM	**Carrier/Waybill Number** Airborne 9136181154		

Contract/Purchase Order/Quote Number
CONTRACT / PURCHASE ORDER # : ARTESIA,NM QUOTE: 22015

Sample I.D. Number and Description	Date	Time	Sample Type	Containers: Volume	Containers: Type	Containers: No.	Preservative	Condition on Receipt/Comments	Analysis: % Moisture	TCLP Organics	TCLP Inorganics	SVOA	PAH	Metals 8270	Metals 6010	Metals 7471	Corrosivity
~~WASH RACK SLUDGE~~	1-14-98	8:30am	SOLID	~~1000mL~~	CLEAR GL	1	None	11°C	X	X	X	X	X	X	X	X	X

Special Instructions
INCLUDE COC, LABELED BOTTLES, BLUE ICE, RETURN SHIPPING, CUSTODY SEALS
1 SAMPLE - WASH RACK SLUDGE

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 3 months)

Turn Around Time Required
☐ Normal ☐ Rush ☐ Other _____

QC Level
☐ I. ☐ II. ☐ III.

Project Specific Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	12-16-97	1800	1. Received By		
2. Relinquished By	12-14-98	08:35	2. Received By	1/16/98	0924
3. Relinquished By			3. Received By		

Comments

WHITE - Stays with the Sample; CANARY - Returned to Client with Report; PINK - Field Copy

istrict I - (505) 393-6161
O. Box 1980
obbs, NM 88241-1980
istrict II - (505) 748-1283
11 S. First
rtesia, NM 88210
istrict III - (505) 334-6178
)00 Rio Brazos Road
ztec, NM 87410
istrict IV - (505) 827-7131

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

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK LWPRICE 8/18/98	4. Generator Weatherford Enterra
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Maclaskey
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 3000 West County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Wearherford Enterra Hobbs facility. This material was generated by steam cleaning/washing oil field tools. I have included a certificate of waste and a chain of custody.

AUG 1998
RECEIVED
Hobbs
OCD

08-003

Estimated Volume 43 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 08/14/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 8/18/98

APPROVED BY: _____ TITLE: Bureau Chief DATE: 8/27/98

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas, 79701 O Telephone (915) 522-2133 O Telefax (915) 522-2180

August 6, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 43 bbl (1800 gallons) of waste water and sludge generated by Weatherford Enterra - Hobbs. Weatherford has generated this waste from washing/steam cleaning oil field tools.

Weatherford generates this waste at:
3000 W. Co. Rd.
Hobbs, NM (Lea Cnty.) 88240
(505)397-4988

The transporter of this waste will be Maclaskey Oil Field Service. Maclaskey is at:

5900 W. Carlsbad Hwy
Hobbs, NM 88240
(505)393-1016

Please find attached copies of the certificate of waste, analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Melinda Beggs

Melinda Beggs
Environmental Technician

cc: Terry James, Llano-Permian Environmental
File: 101-010

Attachments



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra

ADRESS 3000 West County Road, Hobbs, NM 88240

GENERATING SITE 3000 West County Road, Hobbs, NM 88240

COUNTY Lea STATE NM

TYPE OF WASTE Sump Sludge

ESTIMATED VOLUME 43 bbl

GENERATING PROCESS Steam cleaning/washing oil field tools.

REMARKS

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Maclaskey Oil Field Service

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT Melinda Beggs
SIGNATURE

NAME Melinda Beggs
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE May 22, 1998



102365

Page 1 of 1

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID # 174

Company Name: Llano Permian Environmental Phone #: (915) 522-2133
Address: 1031 Andrews Hwy Midland TX 79701 Fax #: (915) 522-2180
Contact Person: Robbie Walker
Invoice to: (If different from above) Weatherford 3000 W. County Rd Hobbs NM
Project #: 101-010 Project Name: Yearly Sampling
Project Location: Hobbs NM Sampler Signature: Robbie Walker

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
102365	S1	2	40 mL				X			X		9/7/98	9:30

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH 418.1	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH	Turn Around Time if different from standard	Hold
		X			X	X	X	X							

RECEIVED AUG 1998 Hobbs OCD

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Julie Ross	7/9/98	3:10PM	Helen Shelton	7/9/98	3:10 PM
Helen Shelton	7/9/98	6:00PM			
			Received at Laboratory by:	Date:	Time:
			Richard Walker	7-10-98	10:00AM

LAB USE ONLY
Intact Y / N
Headspace Y / N
Temp 4 °C
Log-in Review B

REMARKS: 2 samples-HS 7/28/98

Carrier # Greyhound 155 758 9594

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

July 27, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-010
Project Location: Hobbs, NM

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project/Site Name: Yearly Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T102365	S1	<0.10	<0.10	0.11	<0.05	0.13	<0.05	0.68	<0.010
ICV		1.0	1.0	0.99	0.98	0.99	0.20	1.0	0.055
CCV		1.0	1.0	1.0	1.0	0.98	0.20	1.0	0.050
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.10	<0.010
EXTRACTION DATE		07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/14/98	07/15/98
ANALYSIS DATE		07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98	07/16/98
RPD		0	0	0	0	0	16	5	2
% Extraction Accuracy		95	100	95	95	95	108	105	98
% Instrument Accuracy		100	100	99	99	98	100	100	105

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: SA/HC
METHODS: EPA SW 846-1311, 6010B, 7470
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 5.0 mg/L Ag; 0.050 mg/L Hg.
TCLP METALS CV: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.20 mg/L Ag; 0.050 mg/L Hg.

Director, Dr. Blair Leftwich

7-27-98
Date

TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

July 27, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project No: 101-010
Project Location: Hobbs NM

Extraction Date: 7/18/98
Analysis Date: 7/18/98
Sampling Date: 7/09/98
Sample Condition: I & C.
Sample Received by: VW
Project Name: Yearly Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T102365	S1	Non-reactive	<10	<2.5	Non-corrosive	7.7	Nonignitable
QC	Quality Control	—	—	—	—	—	—
RPD		0	0	0	0	0	0
% Extraction Accuracy		100	100	100	100	100	100
% Instrument Accuracy		—	—	—	—	100	—

RECEIVED AUG 1998 Hobbs OCD

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7.7.1.
CHEMIST: RC

Director, Dr. Blair Leftwich

7-27-98
DATE

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Jul 15, 1998
Date Rec: 7/10/98
Project: 101-010
Proj Name: Yearly Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9807000174
Sampling Date: 7/9/98
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	TRPHC (mg/Kg)
102365	S1	Sludge	586,000
Method Blank			<10.0
Reporting Limit			10
QC			103
RPD			4
% Extraction Accuracy			110
% Instrument Accuracy			103

AUG 1998 RECEIVED Hobbs OCD

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TRPHC	EPA 3550	7/14/98	EPA 418.1	7/14/98	MS	100	250

Director, Dr. Blair Leftwich

7-15-98
Date

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

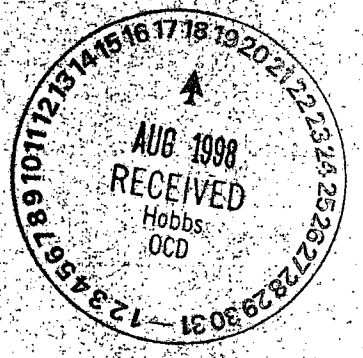
July 27, 1998
Receiving Date: 07/10/98
Sample Type: SLUDGE
Job Number: 101-010
Project Location: Hobbs, NM

Extraction Date: 07/21/98
Analysis Date: 07/22/98
Sampling Date: 07/09/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Yearly Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T102365 S1	CV	RPD	%EA	%IA
Vinyl chloride	0.20	0.050	ND	118	2	87	118
1,1-Dichloroethene	0.70	0.050	ND	119	2	100	119
Methyl Ethyl Ketone	200.0	0.50	ND	83	1	116	83
Chloroform	6.00	0.050	ND	107	6	104	107
1,2-Dichloroethane	0.50	0.050	ND	107	7	91	107
Benzene	0.50	0.050	ND	110	2	106	110
Carbon Tetrachloride	0.50	0.050	ND	115	1	86	115
Trichloroethene	0.50	0.050	ND	117	2	110	117
Tetrachloroethene	0.70	0.050	ND	113	1	110	113
Chlorobenzene	100.00	0.050	ND	105	3	101	105
1,4-Dichlorobenzene	7.50	0.050	ND	110	1	109	110

SURROGATES	% Recovery
Dibromofluoromethane	83
Toluene-d8	88
4-Bromofluorobenzene	83

ND = Not Detected



METHODS: EPA SW 846-1311, 8260.
CHEMIST: DG

Director, Dr. Blair Leftwich

7-27-98
DATE

TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy
Midland, TX 79701

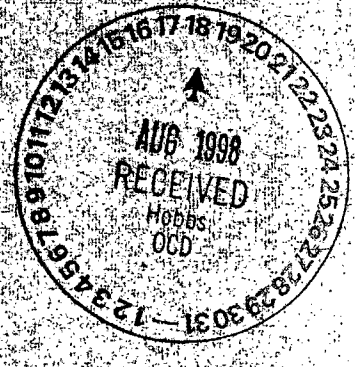
July 27, 1998
Receiving Date: 07/10/98
Sample Type: Sludge
Project #: 101-010
Project Location: Hobbs, NM

Extraction Date: 7/13/98
Analysis Date: 07/18/98
Sampling Date: 07/09/98
Sample Condition: I & C
Sample Received by: VW
Project Name: Yearly Samp

T102365

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	S1	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	68	5	36	75
1,4-Dichlorobenzene	7.5	0.05	ND	80	2	58	100
o-Cresol	200.0	0.05	ND	70	6	45	88
m,p-Cresol	200.0	0.05	ND	64	8	74	80
Hexachloroethane	3.0	0.05	ND	66	4	49	83
Nitrobenzene	2.0	0.05	ND	78	1	68	98
Hexachlorobutadiene	0.5	0.05	ND	87	1	59	109
2,4,6-Trichlorophenol	2.0	0.05	ND	82	116*	13**	103
2,4,5-Trichlorophenol	400.0	0.05	ND	86	84*	25**	108
2,4-Dinitrotoluene	0.13	0.05	ND	74	4	66	93
2,4-D	10.0	0.05	ND	91	1	72	114
Hexachlorobenzene	0.13	0.05	ND	80	2	59	100
2,4,5-TP	1.0	0.05	ND	93	6	63	116
Pentachlorophenol	100.0	0.05	ND	79	141*	4**	99

Surrogates	% RECOVERY
2-Fluorophenol	30
Phenol-d6	27
Nitrobenzene-d5	64
2-Fluorobiphenyl	54
2,4,6-Tribromophenol	63
Terphenyl-d14	69



ND - Not Detected

***NOTE: RPD out of control limits due to concentration of sample.**
****EA limits out of control limit due to concentration of sample.**

Methods: EPA SW 846-1311, 8270.
CHEMIST: MB

7-27-98

Director, Dr. Blair Leftwich DATE

istrict I - (505) 393-6161
O. Box 1980
obbs, NM 88241-1980
istrict II - (505) 748-1283
11 S. First
:tesia, NM 88210
istrict III - (505) 334-6178
)00 Rio Brazos Road
:tec, NM 87410
istrict IV - (505) 827-7131

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

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK w Price 8/18/98	4. Generator Weatherford Enterra
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Odessa Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Malco
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1848 Mercury Road	Odessa, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Wearherford Enterra Odessa facility. This material was generated by steam cleaning oil field tools. I have included a certificate of waste a Texas waste code, and a chain of custody.



08-004

Estimated Volume 250 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 08/14/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR FAST DATE: 8/18/98

APPROVED BY: _____ TITLE: Bureau Chief DATE: 8/20/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford

ADDRESS 1848 Mercury Avenue Odessa TX 79763

COUNTY Ector STATE Texas

YPE OF WASTE Sludge and waste water

ESTIMATED VOLUME 250 BBL. (10,500 gallons)

GENERATING PROCESS Steam cleaning oil filed tools.

REMARKS This waste if from the Mercury Avenue facility.

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Malco Trucking Company (915) 366-4080

As a condition of acceptance for disposal, I hereby certify that this waste is a non- exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Gina King
SIGNATURE

NAME Gina King
PRINTED

ADDRESS 1848 Mercury Ave.
Odessa, Texas 79763

DATE August 7, 1998



August 7, 1998

Ms. Billy Charo
Controlled Recovery Inc
PO Box 369
Hobbs, NM 88241

RE: Waste Disposal Approval Request

Weatherford requests approval to dispose of 250 bbl (10,500 gallons) of waste water and sludge generated by Weatherford. Weatherford has generated this waste from washing/steam cleaning oil field tools.

Weatherford generates this waste at:
1848 Mercury Ave.
Odessa, TX 79763
TX ID #39113
EPA ID # TXD987982691

The transporter of this waste will be Malco Trucking Company of Odessa, Texas. Malco Trucking Company is located at:
2800 W 42Nd Street
Odessa, Texas 79764
(915) 366-4080
TX ID # 76665
EPA ID #TXD988042339

Please find attached the certificate of waste letter. Should you require additional information or have any questions please contact me at (915) 530-4900.

Sincerely,

Gina King

Gina King

Enclosure



LP Llano-Permian Environmental Services
Amarillo, Texas Midland, Texas

December 8, 1997

Ms. Billy Charro
Controlled Recovery Inc.
Hobbs, New Mexico 88214

RE: Corrected Analitical for Odessa Mercury Ave.

This copy of analiticals for Weatherford Odessa Mercury Ave. facility is an updated copy and the correct data for the sample of sump sludge that was previously analized. The sample was reanalyzed for sulfide and cyanide by alternate approved methods that are not as susceptible to interferences. The re-analysis shows low, acceptable levels of cyanide and sulfide.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician

cc: Terry James Llano-Permian Environmental
File: 101-005

Attachments



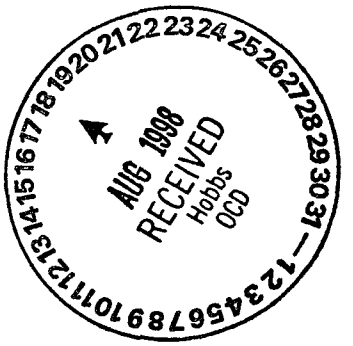
1031 Andrews Hwy. ● Midland, Texas 79701 ● 915-522-2133 ● 915-522-2180 Fax

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Ste. 207
Midland, TX 79701

December 05, 1997
Receiving Date: 11/04/97
Sample Type: Sludge
Project No: 101-005
Project Location: Mercury Ave.
Odessa, TX

Extraction Date: 11/04, 26/97
Analysis Date: 11/06, 26/97
Sampling Date: 10/30/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maintenance



TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	—	<2 >12.5	—
T84691	MAS-1	Non-reactive	16	0.35	Non-corrosive	7.8	Non-ignitable
QC	Quality Control	—	400	0.042	—	7.0	—
RPD		0	0	9	0	0	0
% Extraction Accuracy		—	—	108	—	—	—
% Instrument Accuracy		—	—	106	—	100	—

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1; EPA 335.2, 376.1.
CHEMIST: REACTIVITY/CORROSIVITY/pH/IGNITABILITY: JS SULFIDES/CYANIDE: RC
CYANIDE SPIKE: 1.0 mg/kg CYANIDE.
CYANIDE SPIKE: 0.04 mg/L CYANIDE.

Director, Dr. Blair Leftwich

12-5-97
DATE

Dec-08-97 02:48P
P.02

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

December 08, 1997

Llano Permian Environmental
Attention: Robbie Walker
1031 Andrews Hwy., suite 207
Midland, TX 79701

RE: RCI - Sample T84691

Dear Mr. Walker:

Reactive sulfides and cyanides were previously analyzed by a screening method and reported 11/07/97. The screening method often shows higher than actual sulfide and cyanide results due to interference whenever sulfides and cyanides are present. The sample was originally shown as reactive because of the high levels of sulfides and cyanides. The sample was reanalyzed for sulfide and cyanide by alternate approved methods that are not as susceptible to interferences. The re-analysis (12-05-97) shows low, acceptable levels of cyanide and sulfide.

Sincerely,

Blair Leftwich, M.P.H., Dr.Sc.
Director

AUG 1998
RECEIVED
Hobbs
OCD

29113 Enterra Oil Field Rental

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
02015191 1		Active	10/28/91	Off		No

Description from Generator: Cleaning of oilfield rental tools drill pipe. Returned hardware is steam cleaned, rinsate is collected in sump where solids are settled out. Rinse water is recycled for use. This waste is from current units 001,002,003,Nor dated 11/13/91
Form Code: 519 Other inorganic sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

02021161 1		Active	10/28/91	Off		No

Description from Generator: Cleaning of oilfield rental tools/ drill pipe. Returned hardware is steam cleaned, rinsate is collected in sump where solids are settled out. Rinse water is recycled for use. This waste is from current units 001,002,003, Nor Dated 11/13/91
Form Code: 114 Other aqueous waste with low dissolved solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

0501203K E		Active	01/20/95	Off	No	No

Description from Generator: Spent Solvents Generated from parts cleaning.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D005 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

---

909760 H		Active	On/Off		No

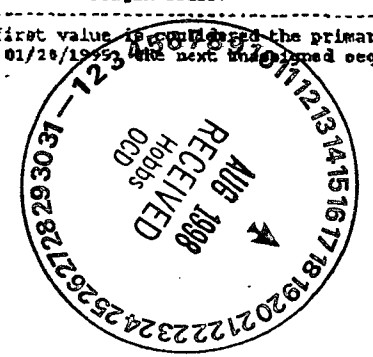
Description from Generator: WASTEWATER, OILY
Form Code:
EPA Hazardous Waste Numbers: D008
Current Management Units: Sump 002
Tank 003
Tank (Surface) 001
* Origin Codes:

940080 H		Active	On/Off		No

Description from Generator: SLUDGE, HEAVY METAL CONTAINING
Form Code:
EPA Hazardous Waste Numbers: D008
Current Management Units: Sump 002
Tank (Surface) 001
* Origin Codes:

---

* The first value is considered the primary value (e.g. primary origin code).
As of 01/20/1995, the next unassigned sequence number for WASTES is 0502.



NOV-25-1996 18:04 NICKELL ENVIRONMENTAL P.12/13
11/25/96 17:56 TX/RX NO.6014 P.012

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Ste. 207
Midland, TX 79701

November 7, 1997
Receiving Date: 11/04/97
Sample Type: Sludge
Project No: 101005
Project Location: Mercury Ave.
Odessa, Tx

Extraction Date: 11/05/97
Analysis Date: 11/06/97
Sampling Date: 10/30/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maintenance

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T84691 MAS-1	QC	RPD	%EA	%IA
Vinyl chloride	0.20	0.05	ND	102	2	83	102
1,1-Dichloroethene	0.70	0.05	ND	99	1	95	99
Methyl Ethyl Ketone	200.0	0.5	ND	99	8	85	99
Chloroform	6.00	0.05	ND	97	1	101	97
1,2-Dichloroethane	0.50	0.05	ND	100	1	102	100
Benzene	0.50	0.05	ND	100	1	101	100
Carbon Tetrachloride	0.50	0.05	ND	112	1	101	112
Trichloroethene	0.50	0.05	ND	99	0	104	99
Tetrachloroethene	0.70	0.05	ND	98	1	104	98
Chlorobenzene	100.00	0.05	ND	102	2	102	102
1,4-Dichlorobenzene	7.50	0.05	ND	100	2	101	100

SURROGATES	% Recovery
Dibromofluoromethane	94
Toluene-d8	94
4-Bromofluorobenzene	94

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RW

AUG 1998
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Hobbs
OCD

Director, Dr. Blair Leftwich

DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Ste. 207
Midland, TX 79701

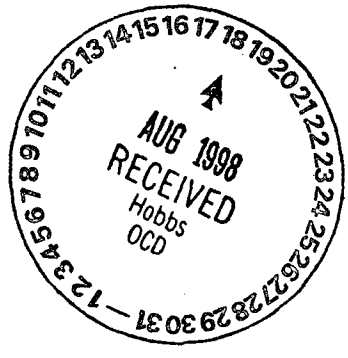
November 7, 1997
Receiving Date: 11/04/97
Sample Type: Sludge
Project No: 101-005
Project Location: Mercury Ave.
Odessa, TX

Extraction Date: 11/06/97
Analysis Date: 11/06/97
Sampling Date: 10/30/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maintenance

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T84691 MAS-1	QC	RPD	%EA	%IA
Pyridine	5.0	0.05	ND	73	200*	1	91
1,4-Dichlorobenzene	7.5	0.05	ND	72	6	32	90
o-Cresol	200.0	0.05	ND	85	12	75	106
m,p-Cresol	200.0	0.05	ND	89	9	59	111
Total Cresol	200.0	0.05	ND	---	---	---	---
Hexachloroethane	3.0	0.05	ND	93	10	24	116
Nitrobenzene	2.0	0.05	ND	89	13	42	111
Hexachlorobutadiene	0.5	0.05	ND	75	20	23	94
2,4,6-Trichlorophenol	2.0	0.05	ND	82	16	43	103
2,4,5-Trichlorophenol	400.0	0.05	ND	75	14	42	94
2,4-Dinitrotoluene	0.13	0.05	ND	94	4	41	118
2,4-D	10.0	0.05	ND	64	6	76	80
Hexachlorobenzene	0.13	0.05	ND	86	17	44	108
2,4,5-TP	1.0	0.05	ND	89	5	116	111
Pentachlorophenol	100.0	0.05	ND	91	5	36	114

Surrogates	**% RECOVERY**
2-Fluorophenol	6**
Phenol-d6	16
Nitrobenzene-d5	57
2-Fluorobiphenyl	51
2,4,6-Tribromophenol	27
Terphenyl-d14	84

***NOTE: RPD out of standard range.**
****NOTE: Surrogate Recovery out of standard range due to sample matrix effect.**



Methods: EPA SW 846-1311, 8270.
CHEMIST: RP/HW
ND - Not Detected

Director, Dr. Blair Leftwich

11-7-97
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

TRACEANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Ste. 207
Midland, TX 79701

November 7, 1997
Receiving Date: 11/04/97
Sample Type: Sludge
Project No: 101-005
Project Location: Mercury Ave.
Odessa, TX

Extraction Date: 11/04/97
Analysis Date: 11/06/97
Sampling Date: 10/30/97
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Maintenance

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T84691	MAS-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.01	0.6	<0.01
QC	Quality Control	4.7	4.8	5.0	4.9	4.8	0.95	5.0	0.05
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.01	0.20	0.01
RPD		2	1	0	0	0	13	1	0
% Extraction Accuracy		85	100	85	85	85	110	90	88
% Instrument Accuracy		93	96	100	97	95	95	96	100

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Hobbs OCD

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: HC
METHODS: EPA SW 846-1311, 6010, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.5 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.05 mg/L Hg.

Director, Dr. Blair Leftwich

11-7-97
Date

Nov-07-97 04:29P
P.03

TRACE ANALYSIS, INC.
6701 Aberdeer Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Ste. 207
Midland, TX 79701

November 7, 1997
Receiving Date: 11/04/97
Sample Type: Sludge
Project No: 101-005
Project Location: Mercury Ave.
Odessa, TX

Extraction Date: 11/04/97
Analysis Date: 11/06/97
Sampling Date: 10/30/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maintenance

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	—	500	250	--	<2 >12.5	—
T84691	MAS-1	Reactive	1,400	960	Non-corrosive	7.8	Non-ignitable
QC	Quality Control		---	—	—	7.0	--
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	—	—	---	—	--
% Instrument Accuracy		--	—	--	--	100	—

OR NON-REACTIVE
per LAB CHECK 12/08/97 LaFleur 8/18/98

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NOV 1998
Hobbs OCD

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1.
CHEMIST: JS

Director, Dr. Blair Leftwich

11-7-97
DATE

Nov-07-97 04:29P
P.02

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

November 06, 1997
Receiving Date: 11/04/97
Sample Type: Sludge
Project No: 101-005
Project Location: Mercury Avenue
Odessa, TX

Extraction Date: 11/04/97
Analysis Date: 11/05/97
Sampling Date: 10/30/97
Sample Condition: I & C
Sample Received by: VW
Project Name: Maint.

TA#	FIELD CODE	TRPHC (mg/L)
T84691	MAS-1	15,300
QC	Quality Control	104
RPD		0.500
RPD		6
% Extraction Accuracy		107
% Instrument Accuracy		104

METHODS: EPA 418.1.
CHEMIST: MS
TRPHC SPIKE: 250 mg/L TRPHC.
TRPHC SPIKE: 100 mg/L TRPHC.

AUG 1998 RECEIVED Hobbs OCD

Director, Dr. Blair Leftwich

11-6-97
DATE

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #_____

Company Name: NAVAJO REFINING CO. Phone: (505) 748-3311
Address: 501 E. MAIN Fax #:
Contact Person: BRYAN MADRID
Invoice to: (if different from above)
Project #: Project Name:
Project Location: Sampler Signature: Bryan Madrid

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
982460	D-363 CHLORIDE Guard	1	1L				X				X	X	7/1/98	1500

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH					Turn Around Time if different from standard	Hold
					X	X	X	X											

RECEIVED JUL 1998 Hobbs OCD

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Bryan Madrid	7/1/98	16:15			
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
				7/2/98	10:45

LAB USE ONLY
Intact (Y) N
Headspace Y N
Temp 1°
Log-in Review

REMARKS: NA
L NV 7/2/98

Carrier # LONESTAR 1043447

Signal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

ORIGINAL COPY

07/24/98 16:37 FAX 002

istrict I - (505) 393-6161
O. Box 1980
obbs, NM 88241-1980
istrict II - (505) 748-1283
11 S. First
rtesia, NM 88210
istrict III - (505) 334-6178
)00 Rio Brazos Road
ztec, NM 87410
istrict IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C 138
Originate 8/8/95

Submit Original
Plus Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Dowell Schlumberger 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Waste Management
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1105 W Bender Hobbs	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Dowell Schlumberger Hobbs facility. This material was generated by washing trucks and oilfield equipment. This material has been approved int he past and I have included a certificate of waste and a chain of custody.

Santa Fe copy!

07-003

RECEIVED
JUL 28 1998
Environmental Bureau
Oil Conservation Division

JUL 1998 RECEIVED Hobbs OCD

Estimated Volume 10 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 07/24/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Envir Engr DATE: 7/24/98

APPROVED BY: SF by _____ TITLE: " DATE: "

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Dowell Schlumberger

ADDRESS 1105 W. Bender

GENERATING SITE Hobbs yard

COUNTY Lea STATE NM

TYPE OF WASTE wet soil

ESTIMATED VOLUME 10 cubic yards

GENERATING PROCESS washing trucks and oilfield equipment

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Waste Management

As a condition of acceptance for disposal, I hearby certify that this waste is a *non-exempt waste as defined by the Environmental Protection Agency's* (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2813.

AGENT Darwin Thompson
SIGNATURE

NAME Darwin Thompson
PRINTED

ADDRESS 1105 W. Bender

PO Box 640 Hobbs, NM 88240

DATE 7-23-98

JUL 1998
RECEIVED
Hobbs
OCD

TO: WHOM IT MAY CONCERN

FROM: DARWIN THOMPSON

RE: WASTE DISPOSAL
DOWELL FACILITY
1105 W. BENDER
HOBBS, NM 88240

The waste we desire to dispose of at Controlled Recovery Incorporated has been generated by the collection of mud and silt at the truck wash bay.
The constituents of this waste stream will be water and soil. The results of the tests of these wastes have been forwarded to you under separate cover. The waste will be transported to CRI by Waste Management, who is authorized to haul this type of waste. This waste stream has been previously analyzed and approved by the OCD and it has not changed.

There are no known hazardous materials in this waste stream.

Sincerely,

Darwin Thompson
Maintenance Supervisor
Dowell, Hobbs, NM

Darwin Thompson



CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
DOWELL SCHLUMBERGER
ATTN: DARWIN THOMPSON
P.O. BOX 640
HOBBS, NM 88240
FAX TO: 505-393-7629

Receiving Date: 02/19/98
Reporting Date: 02/27/98
Project Number: NOT GIVEN
Project Name: ANNUAL ANALYSIS
Project Location: HOBBS
Modified Reporting Date: 04/17/98

Sampling Date: 02/19/98
Sample Type: SOLID
Sample Condition: COOL, INTACT
Sample Received By: BC
Analyzed By: GP

TCLP METALS

LAB NUMBER	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		02/26/98	02/26/98	02/26/98	02/26/98	02/26/98	02/26/98	02/27/98	02/26/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3475-1	WASHBAY MUD	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.199	4.945	10.17	1.968	5.535	4.937	0.0117	0.097
True Value QC		0.200	5.000	10.00	2.000	5.000	5.000	0.0100	0.100
% Recovery		100	99	102	98	110	99	117	97
Relative Standard Deviation		0.4	0.2	1.3	0.4	1.9	0.6	7.6	7.9
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

04/17/98
Date

JUL 1998
RECEIVED
Hobbs
OCD

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
DOWELL SCHLUMBERGER
ATTN: DARWIN THOMPSON
P.O. BOX 640
HOBBS, NM 88240
FAX TO: 505-393-7629

Receiving Date: 02/19/98
Reporting Date: 02/21/98
Project Number: NOT GIVEN
Project Name: ANNUAL ANALYSIS
Project Location: HOBBS
Lab Number: H3475-1
Sample ID: WASHBAY MUD

Analysis Date: 02/20/98
Sampling Date: 02/19/98
Sample Type: SOLID
Sample Condition: COOL, INTACT
Sample Received By: BC
Analyzed By: BC

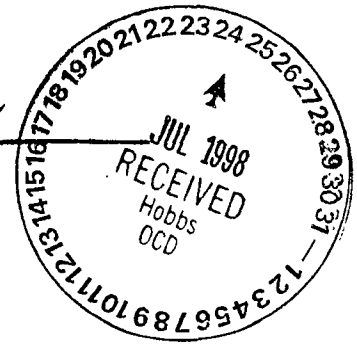
TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3475-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.085	85	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.082	82	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.111	111	0.100
Chloroform	6.0	<0.005	<0.005	0.107	107	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.092	92	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.099	99	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.105	105	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.100	100	0.100
Chlorobenzene	100	<0.005	<0.005	0.103	103	0.100
1,4-Dichlorobenzene	7.6	<0.005	<0.005	0.103	103	0.100

% RECOVERY	
Dibromofluoromethane	96
Toluene-d8	86
Bromofluorobenzene	89

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

2/21/98
Date



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CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name:	Dowell Schlumberger	BILL TO PO #:	
Project Manager:	Darwin Thompson	Company:	
Address:	PO Box 640	Attn:	
City:	Hobbs State: NM Zip: 88240	Address:	
Phone #:	391 3006	City:	
Fax #:	393 7629	State: Zip:	
Project #:	Project Owner:	Phone #:	
Project Name:	Anaual analysis	Fax #:	
Project Location:	Hobbs		

ANALYSIS REQUEST

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TCLP VOL	TCLP semi VOL	TCLP metals	MCI	BTEX	TPH
H3475-1	wash bay mud	G	2										2-19-98	1500	✓	✓	✓	✓		✓
-2	wash bay water	G	2												✓	✓	✓	✓	✓	
-3	used oil	G	2												✓	✓	✓	✓		
-4	parts solvent	G	2												✓	✓	✓	✓		
-5	antifreeze	G	2												✓	✓	✓	✓		
-6	floor sweep	G	2												✓	✓	✓	✓		✓

RECEIVED 1998 FEB 17 AM 7:20 ENVIRONMENTAL HOBBS OCD

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished: Dawn Thomp	Date: 2-19-98 Time:	Received By:	Phone Result: ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: 2/19/98 Time: 2:45	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
DOWELL SCHLUMBERGER
ATTN: DARWIN THOMPSON
P.O. BOX 640
HOBBS, NM 88240
FAX TO: 505-393-7629

Receiving Date: 02/19/98
Reporting Date: 02/21/98
Project Number: NOT GIVEN
Project Name: ANNUAL ANALYSIS
Project Location: HOBBS

Analysis Date: 02/20/98
Sampling Date: 02/19/98
Sample Type: SOLID
Sample Condition: COOL, INTACT
Sample Received By: BC
Analyzed By: BC

LAB NUMBER	SAMPLE ID	TPH (mg/Kg)
H3475-1	WASHBAY MUD	61600
H3475-6	FLOOR SWEEP	97000
Quality Control		201
True Value QC		200
% Recovery		101
Relative Percent Difference		0.2

METHOD: EPA 418.1, 3510, 3540, or 3550; Infrared Spectroscopy

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Chemist

2/21/98
Date

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H3475T.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
DOWELL SCHLUMBERGER
ATTN: DARWIN THOMPSON
P.O. BOX 640
HOBBS, NM 88240
FAX TO: 505-393-7629

Receiving Date: 02/19/98
Reporting Date: 02/25/98
Project Number: NOT GIVEN
Project Name: ANNUAL ANALYSIS
Project Location: HOBBS
Lab Number: H3475-1
Sample ID: WASHBAY MUD

Analysis Date: 02/24/98
Sampling Date: 02/19/98
Sample Type: SOLID
Sample Condition: COOL, INTACT
Sample Received By: BC
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3475-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.052	52	0.100
o-Cresol	200	<0.020	<0.005	0.055	55	0.100
m, p-Cresol	200	<0.020	<0.005	0.115	58	0.200
Hexachloroethane	3.00	<0.020	<0.005	0.050	50	0.100
Nitrobenzene	2.00	<0.020	<0.005	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.106	106	0.100
Hexachlorobenzene	0.130	<0.020	<0.005	0.088	88	0.100
Pentachlorophenol	100	<0.020	<0.005	0.091	91	0.100

	% RECOVERY
Fluorophenol	40
Phenol-d5	35
Nitrobenzene-d5	70
2-Fluorobiphenyl	65
2,4,6-Tribromophenol	68
Terphenyl-d14	77

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke, Ph. D.

2/25/98
Date

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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK W Price Verbal Approval Received: Yes ☒ No ☐	4. Generator Bowen Tools
	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2623 Enterprise Drive	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information information is from the Bowen Tools Hobbs facility. The material was generated by sump and washing fluids. This material has been appr[illegible] the past and I have included a certificate of waste and a chain of custody.

07-004

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Estimated Volume 1000 gallons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 07/09/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 7/10/98

APPROVED BY: _____ TITLE: Bureau Chief DATE: 7/14/98

Sent to Hobbs 355 - 7/14/98

CERTIFICATE OF WASTE STATUS
NON-EMEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Bowen Tools Inc.

ADDRESS 2623 Enterprise Dr. Hobbs N.M.

GENERATING SITE SAME

COUNTY Lea STATE N.M.

TYPE OF WASTE Wash Water & Sludge

ESTIMATED VOLUME 1000 Gallons

GENERATING PROCESS Sump & Washing fluids

REMARKS

NMOCD FACILITY

TRUCKING COMPANY UN KNOWN

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

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AGENT Alan Redw
SIGNATURE

NAME Alan Redw
PRINTED

ADDRESS 2623 Enterprise Dr.
Hobbs N.M. 88240

DATE 7-7-98

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BOWEN TOOLS, INC.
ATTN: ALAN REDER
2623 ENTERPRISE
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/04/98
Reporting Date: 03/10/98
Project Owner: BOWEN
Project Name: NOT GIVEN
Project Location: HOBBS, NM

Sampling Date: 03/04/98
Sample Type: SLUDGE (1), WASTEWATER (2)
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/HM

TCLP METALS

LAB NUMBEF	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		03/06/98	03/07/98	03/07/98	03/07/98	03/07/98	03/07/98	03/10/98	03/06/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3495-1	SUMP	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
H3495-2	RECYCLED H2O	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
	TANK								
Quality Control		0.221	5.042	10.16	1.998	5.708	4.838	0.0103	0.190
True Value QC		0.200	5.000	10.00	2.000	5.000	5.000	0.0100	0.200
% Recovery		110	101	102	100	114	96.8	103	95.0
Relative Standard Deviation		9.8	0.4	1.3	2.1	0.9	0.7	7.2	3.9
METHODS: EPA 1311, 600/4-91/		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

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03/10/98
Date

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ANALYTICAL RESULTS FOR
BOWEN TOOLS, INC.
ATTN: ALAN REDER
2623 ENTERPRISE
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/04/98
Reporting Date: 03/10/98
Project Owner: BOWEN
Project Name: NOT GIVEN
Project Location: HOBBS, NM

Sampling Date: 03/04/98
Sample Type: SLUDGE (1), WASTEWATER (2)
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		03/10/98	03/10/98	03/10/98	03/10/98
H3495-1	SUMP	Not reactive	Not reactive	7.15	>140
H3495-2	RECYCLED H2O TANK	Not reactive	Not reactive	8.94	>140
Quality Control		NR	NR	7.06	NR
True Value QC		NR	NR	7.00	NR
% Accuracy		NR	NR	101	NR
Relative Percent Difference		NR	NR	0.4	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

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ANALYTICAL RESULTS FOR
BOWEN TOOLS, INC.
ATTN: ALAN REDER
2623 ENTERPRISE
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/04/98
Reporting Date: 03/05/98
Project Owner: BOWEN
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Lab Number: H3495-1
Sample ID: SUMP

Analysis Date: 03/05/98
Sampling Date: 03/04/98
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3495-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.108	108	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.113	113	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.108	108	0.100
Chloroform	6.0	0.025	<0.005	0.116	116	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.084	84	0.100
Benzene	0.5	<0.005	<0.005	0.101	101	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.103	103	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.113	113	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.109	109	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.118	118	0.100

	% RECOVERY
Dibromofluoromethane	102
Toluene-d8	94
Bromofluorobenzene	84

METHODS: EPA SW 846-8260, 1311

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Burgess J. A. Cooke, Ph. D.

3/5/98
Date

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ANALYTICAL RESULTS FOR
BOWEN TOOLS, INC.
ATTN: ALAN REDER
2623 ENTERPRISE
HOBBS, NM 88240
FAX TO:

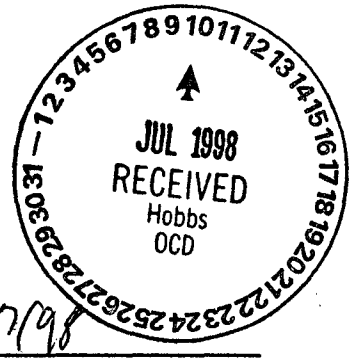
Receiving Date: 03/04/98
Reporting Date: 03/07/98
Project Owner: BOWEN
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Lab Number: H3495-1
Sample ID: SUMP

Analysis Date: 03/06/98
Sampling Date: 03/04/98
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3495-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.050	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.050	<0.050	0.052	52	0.100
o-Cresol	200	<0.050	<0.050	0.055	55	0.100
m, p-Cresol	200	<0.050	<0.050	0.115	58	0.200
Hexachloroethane	3.00	<0.050	<0.050	0.050	50	0.100
Nitrobenzene	2.00	<0.050	<0.050	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.050	<0.050	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.050	<0.050	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.050	<0.050	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.050	<0.050	0.106	106	0.100
Hexachlorobenzene	0.130	<0.050	<0.050	0.088	88	0.100
Pentachlorophenol	100	<0.050	<0.050	0.091	91	0.100

	% RECOVERY
Fluorophenol	26
Phenol-d5	24
Nitrobenzene-d5	62
2-Fluorobiphenyl	61
2,4,6-Tribromophenol	64
Terphenyl-d14	85

METHODS: EPA SW 846-8270, 1311



Burgess J. A. Cooke, Ph. D.

3/7/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BOWEN TOOLS, INC.
ATTN: ALAN REDER
2623 ENTERPRISE
HOBBS, NM 88240
FAX TO:

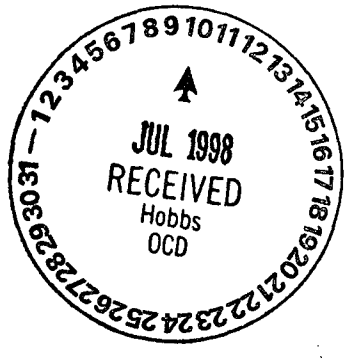
Receiving Date: 03/04/98
Reporting Date: 03/07/98
Project Owner: BOWEN
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Lab Number: H3495-2
Sample ID: RECYLED WATER TANK

Analysis Date: 03/06/98
Sampling Date: 03/04/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3495-2	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.050	<0.050	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.050	<0.050	0.052	52	0.100
o-Cresol	200	<0.050	<0.050	0.055	55	0.100
m, p-Cresol	200	<0.050	<0.050	0.115	58	0.200
Hexachloroethane	3.00	<0.050	<0.050	0.050	50	0.100
Nitrobenzene	2.00	<0.050	<0.050	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.050	<0.050	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.050	<0.050	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.050	<0.050	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.050	<0.050	0.106	106	0.100
Hexachlorobenzene	0.130	<0.050	<0.050	0.088	88	0.100
Pentachlorophenol	100	<0.050	<0.050	0.091	91	0.100

	% RECOVERY
Fluorophenol	53
Phenol-d5	46
Nitrobenzene-d5	80
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	75
Terphenyl-d14	96

METHODS: EPA SW 846-8270, 1311



Burgess J. A. Cooke, Ph. D.

3/7/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BOWEN TOOLS, INC.
ATTN: ALAN REDER
2623 ENTERPRISE
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/04/98
Reporting Date: 03/05/98
Project Owner: BOWEN
Project Name: NOT GIVEN
Project Location: HOBBS, NM
Lab Number: H3495-2
Sample ID: RECYLED WATER TANK

Analysis Date: 03/05/98
Sampling Date: 03/04/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3495-2	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.108	108	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.113	113	0.100
Methyl Ethyl Ketone	200	0.247	<0.050	0.108	108	0.100
Chloroform	6.0	0.359	<0.005	0.116	116	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.084	84	0.100
Benzene	0.5	<0.005	<0.005	0.101	101	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.103	103	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.113	113	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.109	109	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.118	118	0.100

	% RECOVERY
Dibromofluoromethane	98
Toluene-d8	101
Bromofluorobenzene	94

METHODS: EPA SW 846-8260, 1311

JUL 1998
RECEIVED
Hobbs
OCD

Burgess J. A. Cooke, Ph. D.

3/5/98
Date

PLEASE NOTE: **Liability and Damages.** **Cardinal's** liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 (915) 673-7001 Fax (915) 673-7020
101 East Marland, Hobbs, NM 88240 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page ____ of ____

Company Name:	BOWEN TOOL
Project Manager:	ALAN REDER
Address:	2623 ENTERPRISE
City:	HOBBS State: NM Zip:
Phone #:	
Fax #:	
Project #:	Project Owner: BOWEN
Project Name:	
Project Location:	

BILL TO	
PO #:	
Company:	Bowen Tool
Attn:	Alan Reder
Address:	P.O. Box 116
City:	Hobbs
State:	NM Zip: 88241
Phone #:	392 3541
Fax #:	392 3542

ANALYSIS REQUEST

TCLP Completed

RECEIVED JUL 1998 Hobbs OCD

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	
-1	SUMP							✓					3/4/98	11:30	X
-2	RECYCLED WATER TANK							✓					✓	✓	X

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 03/04/98 Time: 11:00	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
			Fax Result: ☐ Yes ☐ No
Relinquished By: Alan Reder	Date: Time:	Received By: (Lab Staff)	REMARKS:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ W Price 7/2/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator Baker Oil Tools
	5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 West County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. The material was generated by steaming tools. This material has been approved in the past and have included a certificate of waste and a chain of custody.

JUL 1998
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Hobbs
OCD

07-001

98-7-7 sand & trash

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: Envir. Compliance Manager DATE: 07-001
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 7/2/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 7-6-98

BAKER OIL TOOLS

FAX TRANSMITTAL MEMO

HOBBS, NEW MEXICO

Telephone: 505-397-3671 • Fax: 505-393-4213

Date:	7-6-98		
To:	Billie Charo	**From:**	Ray Dockery
Location:		**Ref:**	
Company:	CRI	**Subject:**	
Fax No.:	393-3615		Sump disposal
Copy:		**# pgs:(inc. this pg)**	2

The waste we are sending remains the same as previously tested.

Ray Dockery

07-001

JUL 1998
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Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Baker Oil Tools

ADDRESS P O Box 1820 Hobbs, NM 88240

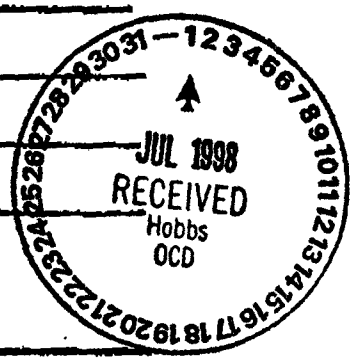
GENERATING SITE 507 West County Road Hobbs

COUNTY Lea **STATE** NM

TYPE OF WASTE Sump water

ESTIMATED VOLUME 60 bbls

GENERATING PROCESS Steaming tools



REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Rowland Trucking

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT _____
SIGNATURE

NAME Ray Dockery
PRINTED

ADDRESS P O Box 1828

Hobbs, NM 88240

DATE 7-6-98

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/13/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/AH

TCLP METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	02/12/98	02/06/98	02/11/98	02/12/98	02/12/98	02/12/98	02/10/98	02/06/98
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H3444-1 WASHBAY	<1	<1	<5	<0.1	<1	<1	<0.02	<0.01
Quality Control	0.095	2.358	4.945	2.025	5.026	5.006	0.0087	0.0485
True Value QC	0.100	2.500	5.000	2.000	5.000	5.000	0.0100	0.0500
% Recovery	95	94	99	101	101	100	87	97
Relative Standard Deviation	7.5	0.5	14.6	0.9	1.9	4.7	8.9	10.1

METHODS: EPA 1311, 600/4-91/0	206.2	272.1	200.7	218.1	239.1	245.1	270.2

JUL 1998
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Hobbs
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Chemist

2/13/98
Date

PLEASE NOTE: **Liability and Damages.** Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

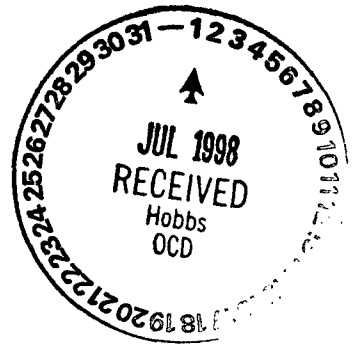
Receiving Date: 02/05/98
Reporting Date: 02/07/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/06/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.052	52	0.100
o-Cresol	200	0.011	<0.002	0.055	55	0.100
m, p-Cresol	200	0.008	<0.002	0.115	58	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.050	50	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.106	106	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.088	88	0.100
Pentachlorophenol	100	<0.008	<0.002	0.091	91	0.100

	% RECOVERY
Fluorophenol	29
Phenol-d5	29
Nitrobenzene-d5	71
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	76
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510



Burgess J. A. Cooke, Ph. D.

2/7/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/18/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		02/13/98	02/13/98	02/17/98	02/18/98
H3444-1	WASHBAY	<50	<50	7.26	>140
Quality Control		NR	0.105	7.01	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

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Hobbs
OCD

Chemist

2/18/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/05/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/05/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.103	103	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.087	87	0.100
Methyl Ethyl Ketone	200	0.055	<0.050	0.114	114	0.100
Chloroform	6.0	<0.005	<0.005	0.106	106	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.097	97	0.100
Benzene	0.5	0.009	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.112	112	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.116	116	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	111
Toluene-d8	110
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311



Burgess J. A. Cooke, Ph. D.

2/5/98
Date

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CARDINAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page____ of____

Company Name:	BAKER OIL TOOLS	BILL TO	PO #:
Project Manager:	BILL RUSSELL	Company:	BAKER
Address:	507 W County Road	Attn:	
City:	HOBBS State: NM Zip: 88240	Address:	P.O. Box 1828
Phone #:	505-397-3671	City:	HOBBS
Fax #:	505-393-4213	State: NM	Zip:
Project #:	WASH BAY Project Owner:	Phone #:	
Project Name:		Fax #:	
Project Location:	HOBBS		

ANALYSIS REQUEST

TCLP (Complete)

RECEIVED JUL 1998 HOBBS OCD

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H-3444-1	WASH BAY	G	4		✓						✓		02/05/98	11:30

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

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Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By: Bill Russell	Date:	Received By: (Lab Staff)	REMARKS: COPY TO CRI
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

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

Form C-13
Originated 8/8/

Submit Origi
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District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ W Price 7/2/98	4. Generator Baker Oil Tools
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 West County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. The material was generated by steaming tools. This material has been approved in the past and I have included a certificate of waste and a chain of custody.

07-002

JUL 1998
RECEIVED
Hobbs
OCD

Sent to Hobbs 7-6-98

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 07-001
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Brian Bass DATE: 7/2/98

APPROVED BY: Martyne J Kelly TITLE: Env Geologist DATE: 7-6-98

BAKER OIL TOOLS

FAX TRANSMITTAL MEMO

HOBBS, NEW MEXICO

Telephone: 505-397-3671 • Fax: 505-393-4213

Date:	7-20-98		
To:	Billie Charo	**From:**	Ray Dockery
Location:		**Ref:**	
Company:	CRI	**Subject:**	Sump disposal
Fax No.:	393-3615	**# pgs:(inc. this pg)**	2
Copy:			

The waste we are sending remains the same as previously tested.

Ray Dock

07-002

JUL 1998
RECEIVED
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Baker Oil Tools

ADDRESS P O Box 1828 Hobbs, NM 88240

GENERATING SITE 507 West County Road Hobbs

COUNTY Lea **STATE** NM

TYPE OF WASTE Sump Water

ESTIMATED VOLUME 60 bbls

GENERATING PROCESS Steaming Tools

JUL 1998
RECEIVED
Hobbs
OCD

REMARKS

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Rowland Trucking

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Ray Dockery
SIGNATURE

NAME Ray Dockery
PRINTED

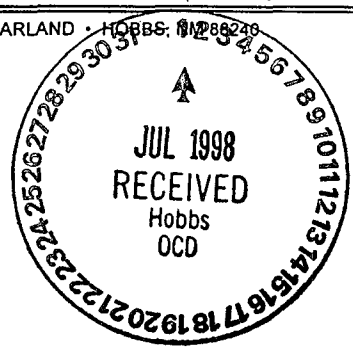
ADDRESS P O Box 1828

Hobbs, NM 88240

DATE 7-20-98

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240



ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/13/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/AH

TCLP METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	02/12/98	02/06/98	02/11/98	02/12/98	02/12/98	02/12/98	02/10/98	02/06/98
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H3444-1 WASHBAY	<1	<1	<5	<0.1	<1	<1	<0.02	<0.01
Quality Control	0.095	2.358	4.945	2.025	5.026	5.006	0.0087	0.0485
True Value QC	0.100	2.500	5.000	2.000	5.000	5.000	0.0100	0.0500
% Recovery	95	94	99	101	101	100	87	97
Relative Standard Deviation	7.5	0.5	14.6	0.9	1.9	4.7	8.9	10.1
METHODS: EPA 1311, 600/4-91/0	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

2/13/98
Date

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CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

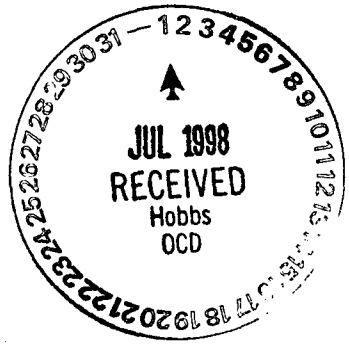
Receiving Date: 02/05/98
Reporting Date: 02/07/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/06/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.052	52	0.100
o-Cresol	200	0.011	<0.002	0.055	55	0.100
m, p-Cresol	200	0.008	<0.002	0.115	58	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.050	50	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.106	106	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.088	88	0.100
Pentachlorophenol	100	<0.008	<0.002	0.091	91	0.100

	% RECOVERY
Fluorophenol	29
Phenol-d5	29
Nitrobenzene-d5	71
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	76
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510



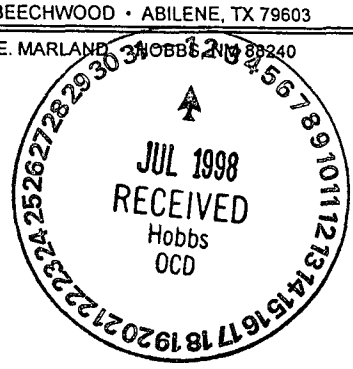
Burgess J. A. Cooke, Ph. D.

2/7/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240



ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/18/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		02/13/98	02/13/98	02/17/98	02/18/98
H3444-1	WASHBAY	<50	<50	7.26	>140
Quality Control		NR	0.105	7.01	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

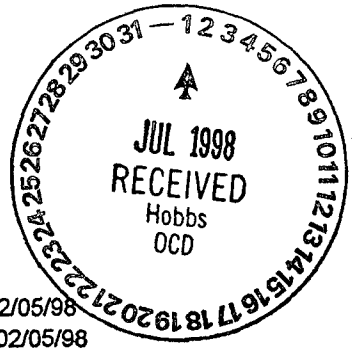
Chemist

2/18/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240



ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/05/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/05/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.103	103	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.087	87	0.100
Methyl Ethyl Ketone	200	0.055	<0.050	0.114	114	0.100
Chloroform	6.0	<0.005	<0.005	0.106	106	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.097	97	0.100
Benzene	0.5	0.009	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.112	112	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.116	116	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	111
Toluene-d8	110
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

2/5/98
Date

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CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name:	BAKER OIL TOOLS	BILL TO	PO #:
Project Manager:	BILL RUSSELL	Company:	BAKER
Address:	507 W County Road	Attn:	
City:	HOBBS State: NM Zip: 88240	Address:	P.O. Box 1626
Phone #:	505-397-3671	City:	HOBBS
Fax #:	505-393-4213	State:	NM Zip:
Project #:	WASH BAY Project Owner:	Phone #:	
Project Name:		Fax #:	
Project Location:	HOBBS		

ANALYSIS REQUEST

TCLP Chlorides

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FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H 31444-1	WASH BAY	G	4		✓						✓		02/05/98	11:30

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By: Bill Russell	Date:	Received By: (Lab Staff)	REMARKS: Copy to CRI
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ (per Lori Wrotenbery 7/2/98)	4. Generator Weatherford
	5. Originating Site Odessa Pipe Plant
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Fluid Transport
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8870 W Loop 338	Odessa Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherfor Odessa Pipe Plant. The material was generated by hydroblasting oil field pipe. This material has been approved in the past and I have included a certificate of waste, Texas Waste code, and a chain of custody.

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07-003

Sent to Hobbs 7-6-98

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 07-001

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: 7/2/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 7-6-98

07-003

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas, 79701 ○ Telephone (915) 522-2133 ○ Telefax (915) 522-2180

June 26, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 120 bbls (5040 gallons) of waste water and sludge generated by Weatherford Enterra Inc. (Weatherford). Weatherford has generated this waste from hydroblasting of oilfield pipe.

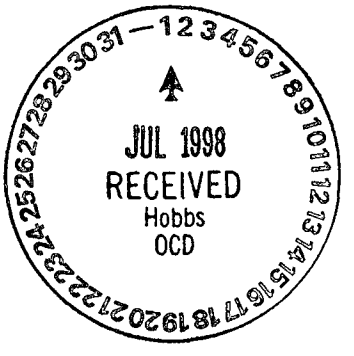
Weatherford generates this waste at:
8870 West Loop 338
Odessa, TX 79764
TX ID #75327
EPA ID #TXD988025755

The transporter of this waste will be Fluid Transports of Snyder, Texas. Fluid Transports is at:
P.O. Box 99
Snyder, TX 79550
(915) 573-5421
TX ID #41382
EPA ID # TXD982756744

Please find attached copies of the certificate of waste status, Texas Notice of Registration (NOR), analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician



cc: Terry James, Llano-Permian Environmental
File: 101-130

Attachments

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, Inc.

ADRESS 8870 West Loop 338 Odessa TX 79763

GENERATING SITE 8870 West Loop 338 (Pipe Plant) Odessa TX 79763

COUNTY Ector STATE Texas

TYPE OF WASTE Sludge and waste water

ESTIMATED VOLUME 120 bbls. (5040 gallons)

GENERATING PROCESS This waste was generated from hydroblasting of oilfield pipe.

REMARKS This waste is from the West Lp. (Pipe Plant) facility.

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Fluid Transports (806)741-1080

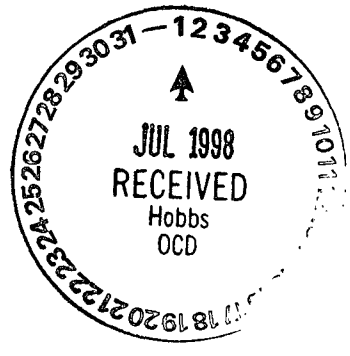
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT Robbie Walker
SIGNATURE

NAME Robbie O. Walker
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE June 26, 1998



XENCO Laboratories

11381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab Batch # 171634-H

Contractor: Nickell Environmental Phone: (915) 520-4700

Address: 19 Barry Rd Midland TX 797

Project Name: Sump disposal Project Director: Terry James

Project Location: Pipe Plant WLP Project Manager: Robbie Walker

Sampler Signature: Robbie Walker Project No: WEA116-0000 Pipe Plant

No. coolers this shipment: Contractor COC #

Carrier: FedEx Quote #:

Airbill No: 147701793 1 P.O. No:

SAMPLE CHARACTERIZATION

Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P,G	Preservative Ice	Preservative Other
SP	7/15	7:15					X	32 oz	G	X	

Unl Diss Ker Unknown Waste Oil

PO No: Task No:

Sample Description

Sump Sludge

No of CONTAINERS Total

BTEX (8020/8260/602)	TPH (418.1)	TCLP Metals	RCI	TCLP VOA	TCLP SVOA	Please Hold	Turn-around: ASAP / 24 hrs / 48 hrs / Standard	Remarks	LAB ID #
	X	X	X	X	X				1
									2
									3
									4
									5
									6
									7
									8
									9
									10

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Relinquished by	Date	Time	Received by	Date	Time
Robbie Walker	7/15/97	9:15			
			Received For Laboratory by:	7-16-97	1530

Remarks

JUL-24-1997 10:28 NICKELL ENVIRONMENTAL

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plent WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171634-001 SP					
Ignit./F.P. Analyzed by EPA 1010		Date Analyzed - Analytical Results deg. F					
		Jul 22, 1997					
Ignitability, Pensky-Martens		> 180					
TCLP Metals Analyzed by EPA1311/6010		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 18, 1997					
Arsenic		< 0.5					
Barium		1.3					
Cadmium		< 0.10					
Chromium		< 0.5					
Lead		< 0.5					
Silver		< 0.08					
Selenium		< 0.4					
TCLP Mercury Analyzed by EPA 7470		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Mercury		< 0.022					
Cyanide RCI Analyzed by SW846 7.3.3		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Cyanide		< 0.5					
Sulfide RCI Analyzed by SW846 7.3.4		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Sulfide		< 0.5					
pH Analyzed by EPA 9045		Date Analyzed - Analytical Results S.U.					
		Jul 18, 1997					
pH, Electrometric		7.30					
TCLP S.V. Analyzed by EPA 8270		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 21, 1997					

JUL 1998
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Hobbs
OCD

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Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

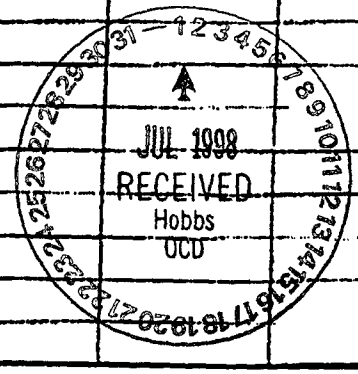
Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:*	171634-001 SP
1,4-Dichlorobenzene		< 0.513
2,4-Dinitrotoluene		< 0.051
Hexachlorobenzene		< 0.043
Hexachlorobutadiene		< 0.205
Hexachloroethane		< 0.513
2-Methylphenol		< 5.128
3-Methylphenol		< 5.128
4-Methylphenol		< 5.128
Nitrobenzene		< 0.513
Pentachlorophenol		< 5.128
Pyridine		< 0.513
2,4,5-Trichlorophenol		< 5.128
2,4,6-Trichlorophenol		< 0.513



TCLP Vol. Analyzed by EPA1311/8260	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)	
	Jul 22, 1997	
Benzene	< 0.05	
2-Butanone	< 4.00	
Carbon Tetrachloride	< 0.05	
Chloroform	< 0.25	
1,2-Dichloroethane	< 0.05	
1,1-Dichloroethene	< 0.05	
Tetrachloroethene	< 0.05	
Trichloroethene	< 0.05	
Vinyl chloride	< 0.025	
Chlorobenzene	< 2.00	

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Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

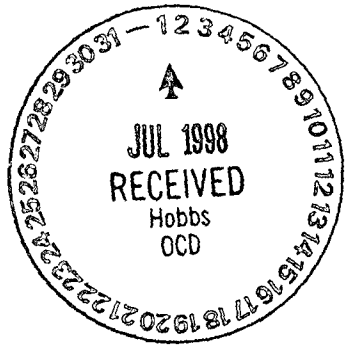
Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171634-001					
	Field ID:	SP					
	Depth:						
TPH Analyzed by EPA 418.1	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)						
	Jul 21, 1997						
Total Petroleum Hydrocarbons	10300						



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Edward H. Yonemoto, Ph.D.
QA/QC Manager

IHW020 *** TEXAS NATURAL RESOURCE CONSERVATION COMMISSION *** Page:
Notice of Registration Date: 02/20/99
Industrial and Hazardous Waste

75327 Weatherford U.S., Inc.

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THRCC Audit Complete

****** Active Wastes ******

30010307 Active 01/26/94 Off No
Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

30116951 1 Active 01/26/94 Off No
Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricants, dirt, paint, scale, and corrosion products/August 1993.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

60C1203H H Active 08/05/94 Off No No
Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash

60C1203H H Active 08/05/94 Off No
Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy aromatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1 Active 08/05/94 Off No
Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

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75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

**** Active Wastes ****

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059032 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063192 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance. To be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

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LHR020 *** TEXAS NATURAL RESOURCE CONSERVATION COMMISSION *** Page:
Notice of Registration Date: 02/20/97
Industrial and Hazardous Waste

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60092098 H Active 08/05/94 Off No
Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60102091 1 Active 08/05/94 Off No
Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipment - general maintenance.
Form Code: 209 Organic paint, ink, lacquer, or varnish
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No
Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.
Form Code: 409 Other non-halogenated organic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60122118 H Active 08/05/94 Off No
Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and equipment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.
Form Code: 211 Paint thinner or petroleum distillates
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60133191 1 Active 08/05/94 Off No
Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

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75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

60143091 H Active 08/05/94 Off No
Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.
Form Code: 309 Batteries or battery parts, casings, cores
EPA Hazardous Waste Numbers: D002 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A55 Filter/Battery replacement
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

60153101 1 Active 08/05/94 Off No
Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.
Form Code: 310 Spent solid filters or absorbants (inorganic)
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60163081 1 Active 08/05/94 Off No
Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

50174061 1 Active 08/05/94 Off No
Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60182961 1 Active 08/05/94 Off No
Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60196351 1 Active 05/18/95 Off No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.
Form Code: 595 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge

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75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

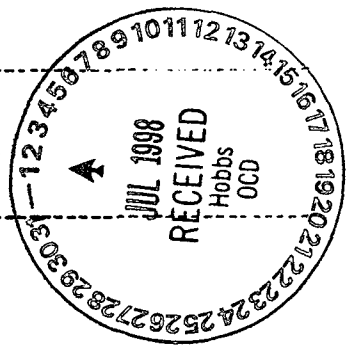
60203071 1 Active 08/05/94 Off No
Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No
Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 08/05/94 Off No
Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No
Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No
Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC



IHH020 *** TEXAS NATURAL RESOURCE CONSERVATION COMMISSION *** Page:
Notice of Registration Date: 02/20/97
Industrial and Hazardous Waste

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes *******

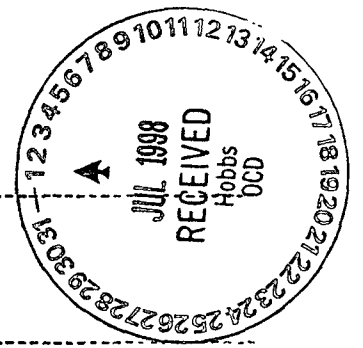
60253101 H Active 08/05/94 Off No
Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1
Form Code: 310 Spent solid filters or adsorbents (inorganic)
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes:
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Paint filters/hazardous

60264891 1 Active 08/05/94 Off No
Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60283131 1 Active 12/28/96 Off No
Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

6029209H H Active 09/18/95 Off No No
Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60304891 1 Active 09/18/95 Off No
Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Mate includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



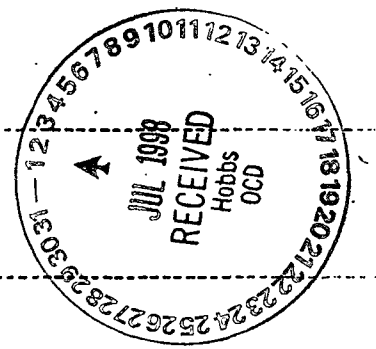
75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THROC Audit Complete
***** Active Wastes *****						
6031109H H		Active	09/18/95	Off	No	No

Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A03 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

990001	H	Active	Off	No	

Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:



* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

00196951 1		Inactive	09/18/95	HA	No	No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00234891 1		Inactive	09/18/95	HA	No	No

Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None.
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

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

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

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Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ W PRICE Verbal Approval Received: Yes ☒ No ☐	4. Generator Star Tool
	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P. O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1000 W County Road Hobbs	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

the following analytical is from the Star Tool Hobbs facility. This material was generated by steam cleaning/washing oil field tools. This material has been approved in the past I have included a certificate of waste and a chain of custody.

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6-30-98 Sent to Envs

Estimated Volume 20yards +200 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 06/24/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Envt Engr DATE: 6/26/98

APPROVED BY: _____ TITLE: Env. Geologist DATE: 6/30/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Star Tool Company

ADDRESS 1000 West county Road, Hobbs, NM 88240

GENERATING SITE 1000 West County Road Hobbs, NM 88240

COUNTY _____ STATE _____

TYPE OF WASTE Sump Sludge

ESTIMATED VOLUME 20 yards

GENERATING PROCESS Steam cleaning/washing oil field tools

REMARKS _____

NMOCD FACILITY Controlled recovery Inc.

TRUCKING COMPANY Rowland Trucking Company

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT H. Don Rodgers
SIGNATURE

NAME H. Don Rodgers
PRINTED

ADDRESS P. O. Box 2008

Hobbs, NM 88240

DATE 6/24/98

JUN 1998
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Hobbs
OCD

TOTAL P.01

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Star Tool Company

ADDRESS 1000 West County Road, Hobbs, NM 88240

GENERATING SITE 1000 West county Road, Hobbs, NM 88240

COUNTY Lea **STATE** NM

TYPE OF WASTE Sludge and Waste Water

ESTIMATED VOLUME 200 bbl. (8400 gallons)

GENERATING PROCESS Steam cleaning/wasing oil field tools

REMARKS

NMOCD FACILITY Controlled recovery Inc.

TRUCKING COMPANY Rowland Trucking Company

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT H. Don Rodgers
SIGNATURE

NAME H. Don Rodgers
PRINTED

ADDRESS P. O. Box 2008'
Hobbs, NM 88240

DATE 6/24/98

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TOTAL P.01

LABORATORY DATA REPORT CHECKLIST

✓ Name of Laboratory.

✓ Name of person responsible for analysis.

✓ Data (units)
Sample description (solid, liquid, etc.)
Field Code
Sampling Date
Receiving Date

✓ Cross reference to laboratory analysis record.

✓ Parameter being analyzed.

✓ Result of analysis with units specified.

✓ Analytical method used.

✓ Minimum detection value of analytical method used. (statement "ND" not acceptable)

✓ Quality control results (as appropriate).
- Precision (deviation between sample and duplicate)
- Extraction Accuracy (recovery of spike)
- Instrument Accuracy (documentation of calibration)

✓ Signature of person responsible for analysis.



FIELD NOTES

Sample identification number:	WW-1
Purpose of sample:	Disposal of wash water
Analysis method to be used:	TCLP S.V. EPA 1311/8270 TCLP Vol. EPA 1311/8260 TCLP Metals - EPA -1311/6010 TCLP Mercury - EPA 1311/7470 IGNIT/F.P. - SW-846 1010 pH - SW-846 2.1.2 Cyanide RCI - SW 846 2.1.3 Sulfide RCI - SW 846 2.1.3 TPH GRO EPA 8015B
Who collected the sample:	Terry James
How the sample was collected:	Sampling Bailer
Sample quantity:	Six quart-size containers
Sample preservation, if any:	Ice
Date and time of sample:	April 28, 1997, 3:00 PM
Where the sample was collected:	From 500 barrel tank
Chain-of-Custody:	Attached



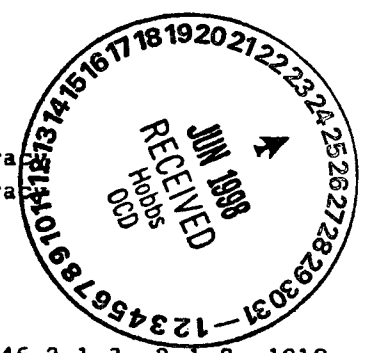
TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Prep Date: 04/29/97
Analysis Date: 04/29/97
Sampling Date: 04/25/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assessment & Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	FLASHPOINT (°F)
	EPA LIMIT =	---	500	250	---	<2 >12.5	>140 °F
T72496	WW-1	Non-reactive	<10	<2.5	Non-corrosive	7.7	>150
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accura		---	---	--	---	---	---
% Instrument Accura		---	---	--	---	100	---



METHODS: EPA SW 846-2.1.3, 2.1.2, 1010.
CHEMIST: JT

Director, Dr. Blair Leftwich

5/1/97
DATE

May-06-97 10:35A P.05

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Nickell Environmental
Attention Terry James
4113 W. Industrial.
Midland TX 79703

Date: May 05, 1997
Date Rec: 4/29/97
Project: STA.501-1
Proj Name: Facility Assessment & Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9704000522
Sampling Date: 4/25/97
Sample Condition: Intact and Cool
Sample Received By: JH

TA#	Field Code	MATRIX	GRO* (mg/L)
T72496	WW-1	Water	11.3
QC			1
RPD			10
% Extraction Accuracy:			81
% Instrument Accuracy:			98



Reporting Limit: 0.1

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
8015G	EPA 5030	4/30/97	EPA 8015B	4/30/97	DH	1	1

* Gasoline Range Organics

Director, Dr. Blair Leftwich

5-5-97
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobb, NM

Extraction Date: 04/30/97
Analysis Date: 04/30/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T72496 WW-1	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.112	2	81	112
1,1-Dichloroethene	0.7	0.05	ND	0.099	1	101	99
Methyl Ethyl Ketone	200.0	0.05	1.71	0.114	1	94	114
Chloroform	6.0	0.05	ND	0.097	0	103	97
1,2-Dichloroethane	0.5	0.05	ND	0.097	1	94	97
Benzene	0.5	0.05	ND	0.100	2	101	100
Carbon Tetrachloride	0.5	0.05	ND	0.099	1	112	99
Trichloroethene	0.5	0.05	ND	0.101	2	106	101
Tetrachloroethene	0.7	0.05	ND	0.102	2	106	102
Chlorobenzene	100.0	0.05	ND	0.103	1	103	103
1,4-Dichlorobenzene	7.5	0.05	ND	0.105	0	98	105

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	93
4-Bromofluorobenzene	92

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RP

Director, Dr. Blair Leftwich

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6701 Aberdeen Avenue
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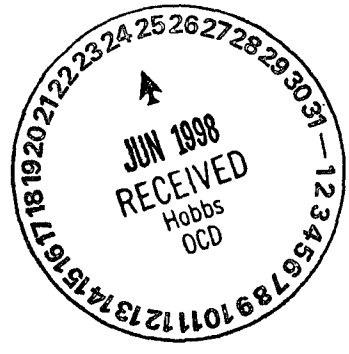
May 1, 1997

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#17 Barry Road
Midland, TX 79706

Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Extraction Date: 04/30/97
Analysis Date: 04/30/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmt & Sampling

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T72496 WW-1	QC	RPD	%EA	%IA
Pyridine	5.0	0.5	ND	89	19	13	111
1,4-Dichlorobenzene	7.5	0.5	ND	84	3	43	105
o-Cresol	200.0	0.5	ND	77	9	48	96
m,p-Cresol	200.0	0.5	ND	75	8	45	94
Total Cresol	200.0	0.5	ND	---	---	---	---
Hexachloroethane	3.0	0.5	ND	79	2	45	99
Nitrobenzene	2.0	0.5	ND	74	4	51	93
Hexachlorobutadiene	0.5	0.1	ND	80	5	49	100
2,4,6-Trichlorophenol	2.0	0.5	ND	78	3	48	98
2,4,5-Trichlorophenol	400.0	0.5	ND	81	4	56	101
2,4-Dinitrotoluene	0.13	0.1	ND	82	3	58	103
2,4-D	10.0	0.5	ND	85	8	46	106
Hexachlorobenzene	0.13	0.1	ND	85	3	86	106
2,4,5-TP	1.0	0.5	ND	86	6	45	108
Pentachlorophenol	100.0	0.5	ND	80	4	72	100
Chlordane	0.03	0.02	ND	0.0515	2	89	103
Toxaphene	0.5	0.5	ND	1.98	39	65	99
Lindane	0.4	0.02	ND	0.025	0	84	100
Heptachlor	0.008	0.002	ND	0.025	0	78	100
Heptachlor epoxide	0.008	0.002	ND	0.025	0	84	100
Total Heptachlor	0.008	0.02	ND	---	---	---	---
Endrin	0.02	0.02	ND	0.050	2	81	100
Methoxychlor	10.0	2.0	ND	0.25	0	92	100
Surrogates	**% RECOVERY**						
2-Fluorophenol	84						
Phenol-d6	88						
Nitrobenzene-d5	92						
2-Fluorobiphenyl	98						
2,4,6-Tribromophenol	108						
Terphenyl-d14	118						



*NOTE: Elevated reporting limits due to sample matrix interference.

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/CC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5/1/97
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Extraction Date: 04/29/97
Analysis Date: 05/01/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T72496	WW-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.05	<0.20	<0.01
QC	Quality Control	5.0	5.0	5.0	5.1	4.9	1.02	5.0	0.0048
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.20	0.01
RPD		1	2	3	2	5	25	3	1
% Extraction Accuracy		95	98	98	77	93	90	101	100
% Instrument Accuracy		99	101	100	101	97	102	100	96

JUN 1998 RECEIVED Hobbs OCD

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: RC
METHODS: EPA SW 846-1311, 6010, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.15 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

5/1/97
Date

May-06-97 10:39A P.06

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Terry James
Phone #: 915/520-4700
FAX #: 915/520-3844

Company Name & Address: Nickels Envr Corp, #19 Bear Rd, Midland, TX 79706

Project #: STA. 501-1
Project Name: Facility Assessment & Sampling

Project Location: Hobbs, New Mexico
Sampler Signature: Terry James

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	SOLID	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
72496	MW-1	6	9/voa	✓							✓		4/25	5:00
97	Frac-1	2	9					X			X		4/25	21:00

ANALYSIS REQUEST

BTEX, MTBE	TPH 8015	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270
	X		X	X	X	X		
	X		X	X	X	X		

SPECIAL HANDLING

- Turn around # of days
- Fax ASAP
- Hold

JUN 1998 RECEIVED Hobbs OCD

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Terry James	4/28/97	5:00	Helen Shelton	4/28/97	5:00PM
Helen Shelton	4/28/97	8:30PM			

Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			J.O. Burdette	4/29/97	9:20

REMARKS: Turn around ASAP on MW-1
Normal turnaround on Frac-1

Shipped Greyhound

CT

8 samples - HS

522/4

May-06-97 11:01A

P.01

Llano Permian Environmental Consulting and Remeditation
1031 Andrews Hwy., Ste. 207b, Midland, Texas 79701
Phone Number: (915)522-2133 Fax Number: (915)522-2180

FACSIMILIE TRANSMITTAL

DATE:

TO: Billy Chano

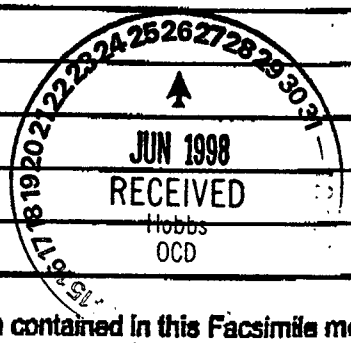
FROM: Jennifer Fuqua
LLANO-PERMIAN ENVIRONMENTAL

RE: Lab Analysis

FAX #: (505) 393-3615

NUMBER OF PAGES: (Including This Coversheet) 16

COMMENTS: This is the STAR Tool sump sludge Analysis



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ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Extraction Date: 05/21/97
Analysis Date: 05/28/97
Sampling Date: 05/19/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T73985	Sump	<0.10	<0.10	<0.02	<0.05	<0.10	<1.0	<0.20	<0.01
T73986	Tank	<0.10	<0.10	<0.02	<0.05	<0.10	<1.0	1.5	<0.01
QC	Quality Control	4.9	4.8	5.0	5.1	4.9	0.9	5.1	0.057
Reporting Limit		0.10	0.10	0.02	0.05	0.10	1.0	0.20	0.01
RPD		2	1	2	2	1	2	1	2
% Extraction Accuracy		89	84	84	89	87	82	92	114
% Instrument Accuracy		97	96	99	101	98	98	102	93

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: DM
METHODS: EPA SW 846-1311, 6010, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Ba, Cd, Cr; Pb; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

5-29-97
Date



TRACE ANALYSIS, INC.
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ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Prep Date: 05/27/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
T73985	Sump	Non-reactive	10	30	Non-corrosive	10.3	Nonignitable
T73986	Tank	Non-reactive	<8.0	0.8	Non-corrosive	7.9	Nonignitable
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	---	---	---	---
% Instrument Accuracy		---	---	---	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1, 4500-S2-E; EPA 335.2.
CHEMIST: JT/RC

Director, Dr. Blair Leftwich

5-29-97
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LP ENVIRONMENTAL 9155203844 06/26/1998 10:44

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ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Extraction Date: 05/22/97
Analysis Date: 05/23/97
Sampling Date: 05/19/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt. & Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T73985 Sump	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.083	1	85	83
1,1-Dichloroethene	0.7	0.05	ND	0.092	1	110	92
Methyl Ethyl Ketone	200.0	0.5	ND	0.102	13	110	102
Chloroform	6.0	0.05	ND	0.093	4	99	93
1,2-Dichloroethane	0.5	0.05	ND	0.096	5	94	96
Benzene	0.5	0.05	ND	0.097	5	99	97
Carbon Tetrachloride	0.5	0.05	ND	0.094	4	103	94
Trichloroethene	0.5	0.05	ND	0.094	6	102	94
Tetrachloroethene	0.7	0.05	ND	0.094	6	105	94
Chlorobenzene	100.0	0.05	ND	0.096	7	103	96
1,4-Dichlorobenzene	7.5	0.05	ND	0.095	7	106	95

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	93

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RP

Director, Dr. Blair Leftwich

5-29-97
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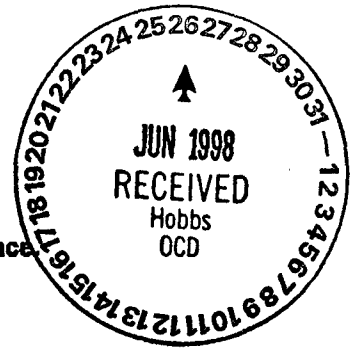
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FAX 806•794•1298

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

Extraction Date: 05/21/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T73985 Sump	Assmnt & Sampling qc	RPD	%EA	%IA
Pyridine	5.0	0.5	ND	88	1	36	110
1,4-Dichlorobenzene	7.5	0.5	ND	80	12	45	100
o-Cresol	200.0	0.5	ND	74	15	55	93
m,p-Cresol	200.0	0.5	ND	74	15	51	93
Total Cresol	200.0	0.5	ND	—	—	—	—
Hexachloroethane	3.0	0.5	ND	74	11	49	93
Nitrobenzene	2.0	0.5	ND	77	10	60	96
Hexachlorobutadiene	0.5	0.05	ND	76	13	56	95
2,4,6-Trichlorophenol	2.0	0.5	ND	79	13	65	99
2,4,5-Trichlorophenol	400.0	0.5	ND	78	13	67	98
2,4-Dinitrotoluene	0.13	0.04	ND	79	9	68	99
2,4-D	10.0	0.5	ND	83	3	49	104
Hexachlorobenzene	0.13	0.05	ND	78	4	80	98
2,4,5-TP	1.0	0.5	ND	76	2	53	95
Pentachlorophenol	100.0	0.5	ND	74	5	79	93
Chlordane	0.03	0.001	ND	0.053	23	34	106
Toxaphene	0.5	0.05	ND	2.09	1	117	105
Lindane	0.4	0.001	ND	0.0265	40	30	106
Heptachlor	0.008	0.001	ND	0.027	35	34	108
Heptachlor epoxide	0.008	0.001	ND	0.026	35	34	104
Total Heptachlor	0.008	0.001	ND	—	—	—	—
Endrin	0.02	0.001	ND	0.054	30	40	108
Methoxychlor	10.0	0.1	ND	0.028	28	42	112
Surrogates	**% RECOVERY**						
2-Fluorophenol	82						
Phenol-d6	82						
Nitrobenzene-d5	92						
2-Fluorobiphenyl	94						
2,4,6-Tribromophenol	82						
Terphenyl-d14	108						



*NOTE: Elevated reporting limits due to sample matrix interference.

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/CC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5-29-97
DATE

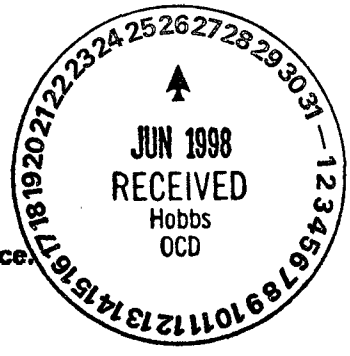
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806•794•1296
FAX 806•794•1298

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

Extraction Date: 05/21/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T73986 Tank	QC	RPD	%EA	%IA
Pyridine	5.0	1.25	ND	88	1	36	110
1,4-Dichlorobenzene	7.5	1.25	ND	80	12	45	100
o-Cresol	200.0	1.25	ND	74	15	55	93
m,p-Cresol	200.0	1.25	ND	74	15	51	93
Total Cresol	200.0	1.25	ND	—	—	—	—
Hexachloroethane	3.0	1.25	ND	74	11	49	93
Nitrobenzene	2.0	1.25	ND	77	10	60	96
Hexachlorobutadiene	0.5	0.125	ND	76	13	56	95
2,4,6-Trichlorophenol	2.0	1.25	ND	79	13	65	99
2,4,5-Trichlorophenol	400.0	1.25	ND	78	13	67	98
2,4-Dinitrotoluene	0.13	0.1	ND	79	9	68	99
2,4-D	10.0	1.25	ND	83	3	49	104
Hexachlorobenzene	0.13	0.125	ND	78	4	80	98
2,4,5-TP	1.0	0.375	ND	76	2	53	95
Pentachlorophenol	100.0	1.25	ND	74	5	79	93
Chlordane	0.03	0.001	ND	0.053	23	34	106
Toxaphene	0.5	0.05	ND	2.09	1	117	105
Lindane	0.4	0.001	ND	0.0265	40	30	106
Heptachlor	0.008	0.001	ND	0.027	35	34	108
Heptachlor epoxide	0.008	0.001	ND	0.026	35	34	104
Total Heptachlor	0.008	0.001	ND	—	—	—	—
Endrin	0.02	0.001	ND	0.054	30	40	108
Methoxychlor	10.0	0.1	ND	0.028	28	42	112
Surrogates	**% RECOVERY**						
2-Fluorophenol	84						
Phenol-d6	86						
Nitrobenzene-d5	93						
2-Fluorobiphenyl	95						
2,4,6-Tribromophenol	73						
Terphenyl-d14	109						



***NOTE: Elevated reporting limits due to sample matrix interference.**

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/GC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5-25-97
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Nickell Environmental
Attention: Terry James
4113 W. Industrial.
Midland TX 79703

Date: May 27, 1997
Date Rec: 5/21/97
Project: STA.501-1
Proj Name: Facility Assessment & Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9705000362
Sampling Date: 5/19/97
Sample Condition: Intact and Cool
Sample Received By: JH

TCLP Vol in Sludge (mg/L)	EPA Limit	Reporting Limit	T73986 Tank	QC	RPD	%EA	%IA
Vinyl Chloride	0.2	0.05	ND	0.0	1	85	8
1,1-Dichloroethene	0.7	0.05	ND	0.0	1	110	9
Methyl Ethyl Ketone	200.0	0.05	ND	0.1	14	110	10
Chloroform	6.0	0.05	ND	0.0	4	99	9
1,2-Dichloroethane	0.5	0.05	ND	0.0	5	94	9
Benzene	0.5	0.05	ND	0.0	4	99	9
Carbon Tetrachloride	0.5	0.05	ND	0.0	4	103	9
Trichloroethene	0.5	0.05	ND	0.0	5	102	9
Tetrachloroethane	0.7	0.05	ND	0.0	7	105	9
Chlorobenzene	100.0	0.05	ND	0.0	7	103	9
1,4-Dichlorobenzene	7.5	0.05	ND	0.0	7	106	9

ND = Not Detected

	% RECOVERY
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	92

JUN 1998
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TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
TCLP Vol	EPA 1311	5/22/97	EPA 8260	5/23/97	RP	0.1 ea	100 ea

Director, Dr. Blair Leftwich

6-27-97
Date

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

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Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Extraction Date: 05/27/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

SAMPLE NO.	FIELD CODE	DRO* (mg/kg)
T73985	Sump	58,000
T73986	Tank	5,400
QC	Quality Control	236
Reporting Limit		50

* DRO - Diesel Range Organics

METHODS: EPA SW 5030, 8015B.
CHEMIST: DH

JUN 1998
RECEIVED
Hobbs
OCD

Director, Dr. Blair Leftwich

5-29-97
DATE

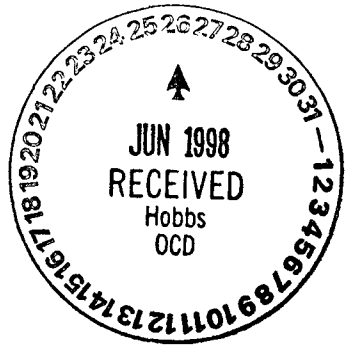
6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

6/10/97

TO: Chris Stapp, Nickell Environmental
FROM: Blair Leftwich, Director BL

RE: RCI on Sludge Sample T73986, Tank, Sta.501-1, Hobbs, NM, sampling date 5/19/97

The sample was originally screened for reactive sulfide and cyanide utilizing Drager tubes. The sample showed 640 ppm sulfide and 240 ppm cyanide. Because there are possible interferences for cyanide and sulfide utilizing Drager tubes and because there were no known sources, the sample was analyzed for cyanide and sulfide utilizing EPA methods 4500-S2-E and EPA 335.2. These methods have less interferences than previous methods, and resulted in sulfides of <8.0 ppm and cyanides of 0.8 ppm.



T3985-86

362

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: TERRY JAMES
Phone #: (915) 888-3334
FAX #: (915) 520-3844

Company Name & Address: NICKELL ENVIRONMENTAL CORP. 19 BARRY Rd. MIDLAND, TX 79706

Project #: STA. 501-1
Project Name: FACILITY ASSMNT. & SAMPLING

Project Location: Hobbs, New Mexico
Sampler Signature: Chris E. Stapp

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	BTEX, MTBE	TPH 8015 DIESEL	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270
73985	SUMP	2					X			X		5/19	2:30		X		X	X	X	X		
86	TANK	2					X			X		5/19	2:30		X		X	X	X	X		

Turn around # of days
Fax ASAP
Hold

SPECIAL HANDLING

ANALYSIS REQUEST

RECEIVED JUN 1998 Hobbs OCD

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Chris E. Stapp	5/20/97	2:10	Helen Shelton	5/20/97	2:10PM
Helen Shelton	5/20/97	5:00 PM			
			Received at Laboratory by:	Date:	Time:
			J.D. Dagnell	5/21/97	9:30A

REMARKS

F 5-28-97 90H

Mr. Tober Ma...

06/26/1998 11:06 9155203844 LP ENVIRONMENTAL PAGE 10

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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator American Fracmaster Ltd.
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1329 W County Road Hobbs	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the American Fracmaster Hobbs facility. The material was generated by leaks from trucking equipment, diesel fuel, corrosion inhibitors, hydrocloric acid spills. I have included a certificate of waste and a chain of custody.

06-003

JUN 1998
RECEIVED
Hobbs
OCD

Sent to Hobbs 6/15/98

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

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 06/08/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: [signature] TITLE: Envir. Engr. (E-Mailed) DATE: 6/12/98

APPROVED BY: Martyn J. Kelly TITLE: Env. Geologist DATE: 6/15/98

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐	4. Generator Baker Oil Tools
	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 West County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. This material was generated by steaming tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

06-004

RECEIVED
Hobbs
OCD

6/15/98 sent to Hobbs

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 06/12/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: [signature] TITLE: EMAIL TO EP DATE: 6/17/98

APPROVED BY: [signature] TITLE: Env Geologist DATE: 6/15/98

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

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

Form C-138
Originated 8/8/

Submit Origin
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐	4. Generator Baker Oil Tools
	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 West County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. This material was generated by steaming tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

06-005

JUN 1998
RECEIVED
Hobbs
OCD

6/15/98 Sent by fax

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) ——— cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 06/12/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

E MAIL To SF

APPROVED BY: [signature] TITLE: ENVR ENGR DATE: 6/17/98

APPROVED BY: Martyne J. Kelly TITLE: Env Geologist DATE: 6/15/98

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Learnco/Ruthco
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2821 W. Marland Hobbs	New Mexico

9. Circle One:

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

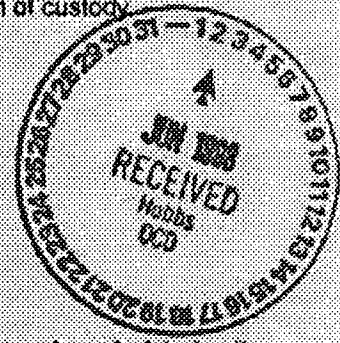
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Learnco/Ruthco Hobbs facility. The material was generated by washing parts. I have included a certificate of waste and and chain of custody.

06-001



Estimated Volume 80 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 06/01/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR. ENGR DATE: 6/3/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 6/4/98

CRI Disposal Request Learnco/Ruthco June 4 1998

CERTIFICATE OF WASTE STATUS
NON-EMEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Loomis / Ruthco

ADDRESS 2621 W. Marland Hobbs N.M

GENERATING SITE 2621 W. Marland

COUNTY Lea STATE N.M

TYPE OF WASTE Sump

ESTIMATED VOLUME 80 BBL

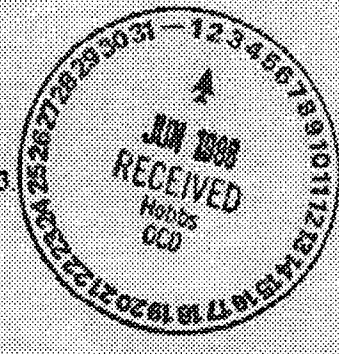
GENERATING PROCESS parts washing

REMARKS

NMOCD FACILITY CRI

TRUCKING COMPANY Un known

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.



AGENT James D. Sherlin
SIGNATURE

NAME James Sherlin
PRINTED

ADDRESS Po Box 2606

Hobbs N.M 88240

DATE 6-1-98

MAXIM
TECHNOLOGIES INC

[redacted]

Attn: [redacted]
[redacted]

Customer ID: [redacted]
Report No: [redacted]
Report Date: [redacted]

Project: [redacted]

Phone: [redacted]

Date Sampled: [redacted]

Sampled By: [redacted]

Sample Type: [redacted]

Transported By: [redacted]

P.O. #: [redacted]

Date Received: [redacted]

Lab No.
[redacted]

Sample Identification
[redacted]

Our letters and reports are for the exclusive use of the client to whom they are addressed and shall not be reproduced except in full without the consent of the testing laboratory. The use of our name must receive our prior written approval. Our letters and reports apply only to the samples tested and are not necessarily indicative of the qualities of apparently identical or similar samples.

Reviewed By

MAXIM

ELLIS S. [redacted]

RECEIVED
[redacted]

[redacted]

MAXIM

Report No. [redacted]
[redacted]

Page 1 of 1

[redacted] TEST RESULTS BY SAMPLE [redacted]

Customer: [redacted]

Sample ID#: [redacted] Collected: [redacted] Client(s): [redacted]

Test Name	Method	Result	Units	Detection Limit	Analyzed	Analyst
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

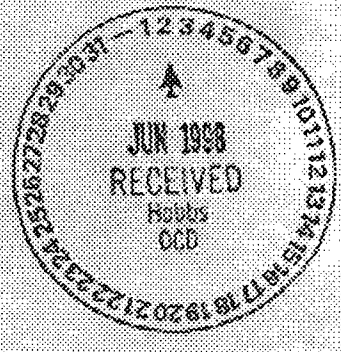
[redacted]

RECEIVED
[redacted]

Sample Description: Hobbs Sample Lab No: 01A
Test Description: TCLP SEMIVOLATILES GC/MS Method: SW-846, 8270 Test Code: TCLPSV
Collected: 09/09/97 Category: S

Date Extracted 09/22/97 Date Analyzed 09/26/97
Analyst MI Units mg/l
Method SW-846, 8270

Parameter	Result	Regulatory Limit
TCLP Semi-Volatile Organics		
Pyridine	< 0.05	5.0
1,4-Dichlorobenzene	< 0.05	7.5
2-Methylphenol	< 0.05	200
3 and 4-Methylphenol	< 0.05	200
Hexachloroethane	< 0.05	3.0
Nitrobenzene	< 0.05	2.0
Hexachlorobutadiene	< 0.05	0.50
2,4,6-Trichlorophenol	< 0.05	2.0
2,4,5-Trichlorophenol	< 0.05	400
2,4-Dinitrotoluene	< 0.05	0.13
Hexachlorobenzene	< 0.05	0.13
Pentachlorophenol	< 0.10	100



MAXIM

Report No. 97-09-034

10/29/97 14:41 **TEST RESULTS BY SAMPLE**

Client: Lennco - Hobbs

Sample Description: Hobbs Sample — Lab No: 01A

Test Description: TCLP VOLATILE ORGANICS — Method: SW-846, 8260 Test Code: TCLP_V

Collected: 09/09/97 — Category: S

Date Analyzed 09/18/97 — Analyst CLU

Units ppm — Method SW-846, 8260

Parameter	Result	Regulatory Limit
TCLP Volatile Organics		
Benzene	< 0.025	0.50
2-Butanone (MEK)	< 0.5	200
Carbon Tetrachloride	< 0.025	0.50
Chlorobenzene	< 0.025	100
Chloroform	< 0.025	6.0
1,2-Dichloroethane	< 0.025	0.50
1,1-Dichloroethene	< 0.025	0.70
Tetrachloroethene	< 0.025	0.70
Trichloroethene	< 0.025	0.50
Vinyl Chloride	< 0.025	0.20



Analysis Request and Chain of Custody Record

Page 1 of 1

☐ **HOUSTON EAS** 222 CAVALCADE ST., HOUSTON, TEXAS 77009 (713) 692-9151
☐ **DALLAS EAS** 2575 LONE STAR DR., DALLAS, TEXAS 75212 (214) 631-2700
☐ **MIDLAND EAS** 1703 WEST INDUSTRIAL, MIDLAND, TEXAS 79701 (915) 683-3349

Client/Project: Giamco - Ruthco

P.O.#

Date and Time	Grab	Comp	Sample Container (Size/Matl)	Sample Type (Liquid, Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
9/97			4 oz. Glass	Sludge		TCLP metals, VOA's, BNA, RCI	

RECEIVED
SEP 10 1997
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Relinquished by (Signature)	Date: 9-9-97 Time: 2:45	Received by (Signature)	Date: Time:	COC Seal No.
Relinquished by (Signature)	Date: Time:	Received by (Signature)	Date: Time:	RECD. ON ICE Yes ____ No ____
Relinquished by (Signature)	Date: Time:	Received by Laboratory (Signature)	Date: 9-9-97 Time: 2:45pm	Initials
		Date Results To:		Laboratory No.

REMARKS: ph 505-398-3191
Fax 505-393-4892

1. James Sherlin
P.O. Box 266
2. Hobbs, N.M. 88240

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

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

Form C-1
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK W Price 6/2/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator Shell Pipeline 5. Originating Site Cooper Lea Pump
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Unknown
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 6 miles N of Jal and 1 1/2 miles W of HWY 18	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following information is from Shell Pipeline Cooper Lea Pump. Shell Pipeline has asked me to use process knowledge to get this material approved. I have included certificate of waste.

06-002

JUN 1998
RECEIVED
Hobbs
OCD

Estimated Volume 500 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Envir. Compliance Manager DATE: 06/02/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Field Engr DATE: 6/2/98

APPROVED BY: _____ TITLE: Env. Geologist DATE: 6/4/98

CRI Disposal Req ~~Exempt Non~~ Shell Pipeline June 4, 1998

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

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

RECEIVED
JUN 01 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ W Price ltr Verbal Approval Received: Yes ☒ No ☐	4. Generator Weatherford Enterra 5. Originating Site Odessa Pipe Plant
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Fluid Transport
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8870 W Loop 338	Odessa, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Odessa Pipe Plant facility. The material was generated by washing/steam cleaning and hydroblasting oil field tools and pipe. This material has been approved in the past. I have included a certificate of waste, a chain of custody, and a Texas waste code.

MAY 1998 RECEIVED Hobbs OCD

Sent to Hobbs 6/1/98

05-005

Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Envir. Compliance Manager DATE: 05/27/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: 5/28/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 6/1/98

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway. Suite 207, Midland, Texas. 79701 ○ Telephone (915) 522-2133 ○ Telefax (915) 522-2180

May 20, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 120 bbl (5,040 gallons) of waste water and sludge generated by Weatherford Enterra Inc. (Weatherford). Weatherford has generated this waste from washing/steam cleaning and hydroblasting oil field tools and pipe.

Weatherford generates this waste at:
8870 West Loop 338
Odessa, TX 79764
TX ID #75327
EPA ID #TXD988025755

The transporter of this waste will be Fluid Transport of Snyder, Texas. Fluid Transport is at:
P.O. Box 99
Snyder, TX 79550
(915) 573-5421
TX ID #41382
EPA ID # TXD982756744

Please find attached copies of the certificate of waste, Texas Notice of Registration (NOR) analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician

cc: Terry James, Llano-Permian Environmental
File: 101-130

Attachments



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, Inc.

ADRESS 8870 West Loop 338 Odessa TX 79763

GENERATING SITE 8870 West Loop 338 (Pipe Plant) Odessa TX 79763

COUNTY Ector STATE Texas

TYPE OF WASTE Sludge and waste water

ESTINATED VOLUME 120 bbl. (5,040 gallons)

GENERATING PROCESS This waste was generated from hydroblasting oilfield pipe.

REMARKS This waste is from the West Lp. (Pipe Plant) facility.

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Fluid Transports (915)573-5421

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT _____
SIGNATURE

NAME Robbie O. Walker
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE May 20, 1998



XENCO Laboratories

1381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab Batch # 171634-H

Contractor: Nickell Environmental	Phone: (915) 520-4100	No. coolers this shipment:	Contractor COC #:
Address: 19 Barry Rd Midland TX 797		Carrier: FedEx	Quote #:
Project Name: Sump disposal	Project Director: Terry James	Airbill No: 147701793 1	P.O. No:
Project Location: Pipe Plant WLP	Project Manager: Robbie Walker		
Sampler Signature: Robbie Walker	Project No.: WEA116-0000 Pipe Plant		

SAMPLE CHARACTERIZATION												Preservative		Unl Diss Ker Unknown / Waste Oil / RRT No: / Tank No:	No of CONTAINERS Total	BTEX (8020/8021B-8020)	TPH (418.1)	TCLP Metals	RCI	TCLP VOA	TCLP SVOA	Pass Hold	Turn-around: ASAP / 24 hrs / 48 hrs / Standard	LAB ONLY ID #
Field ID	Date	Time	DEPTH	SOIL	WATER	COMP	GRAB	Container Size	Container Type P,G	Ice	Other	Sample Description											Remarks	
SP	7/15	7:15					X	32 oz	G	X		Sump Sludge				X	X	X	X	X				1
																								2
																								3
																								4
																								5
																								6
																								7
																								8
																								9
																								10

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Relinquished by	Date	Time	Received by	Date	Time
Robbie Walker	7/15/97	9:15			
			Received for Laboratory by:	7-16-97	1530

Remarks

JUL-24-1997 10:28 NICKELL ENVIRONMENTAL

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

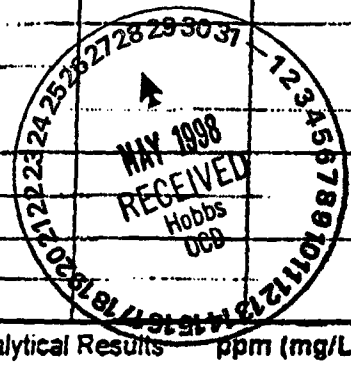
Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171634-001 SP					
Ignit./F.P. Analyzed by EPA 1010		Date Analyzed - Analytical Results deg. F					
		Jul 22, 1997					
Ignitability, Pensky-Martens		> 180					
TCLP Metals Analyzed by EPA1311/6010		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 18, 1997					
Arsenic		< 0.5					
Barium		1.3					
Cadmium		< 0.10					
Chromium		< 0.5					
Lead		< 0.5					
Silver		< 0.08					
Selenium		< 0.4					
TCLP Mercury Analyzed by EPA 7470		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Mercury		< 0.022					
Cyanide RCI Analyzed by SW846 7.3.3		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Cyanide		< 0.5					
Sulfide RCI Analyzed by SW846 7.3.4		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Sulfide		< 0.5					
pH Analyzed by EPA 9045		Date Analyzed - Analytical Results S.U.					
		Jul 18, 1997					
pH, Electrometric		7.30					
TCLP S.V. Analyzed by EPA 8270		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 21, 1997					



This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

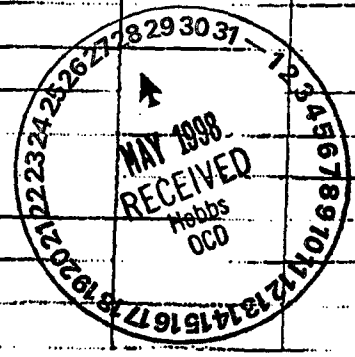
Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
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XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171634-001 SP					
1,4-Dichlorobenzene		< 0.513					
2,4-Dinitrotoluene		< 0.051					
Hexachlorobenzene		< 0.043					
Hexachlorobutadiene		< 0.205					
Hexachloroethane		< 0.513					
2-Methylphenol		< 5.128					
3-Methylphenol		< 5.128					
4-Methylphenol		< 5.128					
Nitrobenzene		< 0.513					
Pentachlorophenol		< 5.128					
Pyridine		< 0.513					
2,4,5-Trichlorophenol		< 5.128					
2,4,6-Trichlorophenol		< 0.513					
TCLP Vol. Analyzed by EPA1311/8260		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Benzene		< 0.05					
2-Butanone		< 4.00					
Carbon Tetrachloride		< 0.05					
Chloroform		< 0.25					
1,2-Dichloroethane		< 0.05					
1,1-Dichloroethene		< 0.05					
Tetrachloroethene		< 0.05					
Trichloroethene		< 0.05					
Vinyl chloride		< 0.025					
Chlorobenzene		< 2.00					



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QA/QC Manager

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CERTIFICATE OF ANALYSIS SUMMARY 1-71634

Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171634-001					
	Field ID:	SP					
	Depth:						
TPH Analyzed by EPA 418.1	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)						
	Jul 21, 1997						
Total Petroleum Hydrocarbons	10300						



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Edward H. Yonemoto, Ph.D.
QA/QC Manager

75327 Weatherford U.S., Inc.

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
0010307		Active	01/26/93	Off		No

Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

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00116951 1 Active 01/26/94 Off No

Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricants, dirt, paint, scale, and corrosion products/August 1993.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

#: 0116951

60C1203H H Active 08/05/94 Off No No

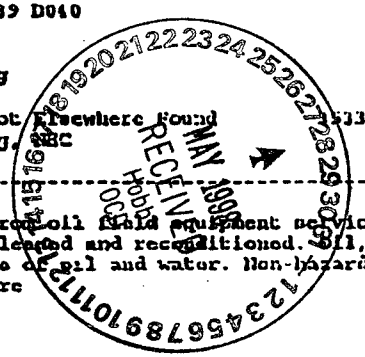
Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash

6002202H H Active 08/05/94 Off No

Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy aromatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1 Active 08/05/94 Off No

Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063101 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or absorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance. to be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

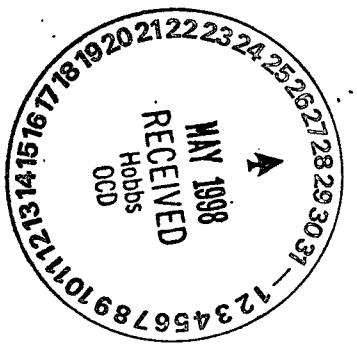
60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or absorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60092091 H Active 08/05/94 Off No

Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.

Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60102091 1 Active 08/05/94 Off No

Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipment - general maintenance.

Form Code: 209 Organic paint, ink, lacquer, or varnish
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No

Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.

Form Code: 409 Other non-halogenated organic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60122111 H Active 08/05/94 Off No

Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and equipment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.

Form Code: 211 Paint thinner or petroleum distillates
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60133191 1 Active 08/05/94 Off No

Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.

Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60143091 H Active 08/05/94 Off No

Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.

Form Code: 309 Batteries or battery parts, casings, cores

EPA Hazardous Waste Numbers: D002 D008

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

* Source Codes: A55 Filter/Battery replacement

* Measurement Points: 1 Before mixing

* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

60153101 1 Active 08/05/94 Off No

Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.

Form Code: 310 Spent solid filters or absorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60163081 1 Active 08/05/94 Off No

Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.

Form Code: 308 Empty or crushed metal drums or containers

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60174061 1 Active 08/05/94 Off No

Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.

Form Code: 406 Empty fiber or plastic containers

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60182961 1 Active 05/05/94 Off No

Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.

Form Code: 296 Ethylene glycol based antifreeze

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60196951 1 Active 05/18/95 Off No

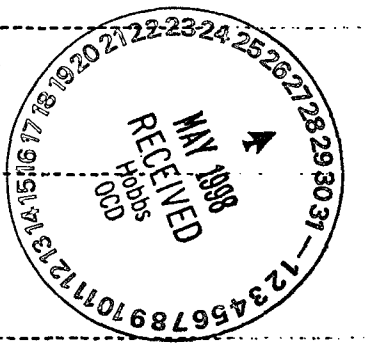
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.

Form Code: 595 Petro contam sldg not still bottoms & oily sludges

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Sump sludge



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THRCC Audit Complete

****** Active Wastes ******

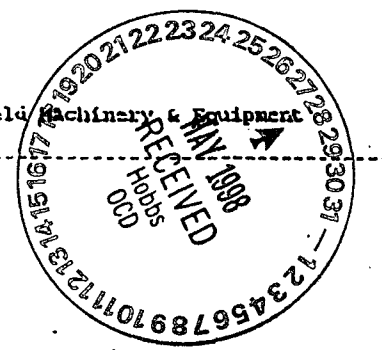
60203071 1 Active 08/05/94 Off No
Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No
Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 08/05/94 Off No
Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No
Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No
Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

60253101 H Active 02/05/94 Off No
Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1
Form Code: 310 Spent solid filters or adsorbents (inorganic)
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes:
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Paint filters/hazardous

60264891 1 Active 08/05/94 Off No
Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60283191 1 Active 12/28/96 Off No
Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

60292091 H Active 09/18/95 Off No No
Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60304891 1 Active 09/18/95 Off No
Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Mate includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

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75127 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THROC Audit Complete

****** Active Wastes ******

6931109H H Active 09/18/95 Off No No
Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A03 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

990001 H Active Off No
Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:

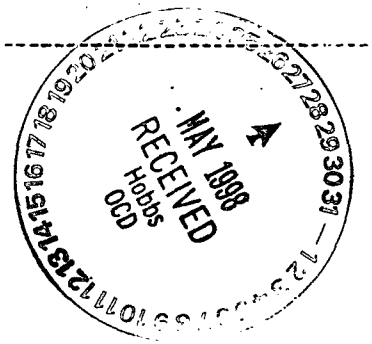
* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

00196951 1 Inactive 09/18/95 PA No No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00234891 1 Inactive 09/18/95 HA No No
Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None.
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.



LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas, 79701 ○ Telephone (915) 522-2133 ○ Telefax (915) 522-2180

May 20, 1998



Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 120 bbl (5,040 gallons) of waste water and sludge generated by Weatherford Enterra Inc. (Weatherford). Weatherford has generated this waste from washing/steam cleaning and hydroblasting oil field tools and pipe.

Weatherford generates this waste at:
8870 West Loop 338
Odessa, TX 79764
TX ID #75327
EPA ID #TXD988025755

The transporter of this waste will be Fluid Transport of Snyder, Texas. Fluid Transport is at:
P.O. Box 99
Snyder, TX 79550
(915) 573-5421
TX ID #41382
EPA ID # TXD982756744

Please find attached copies of the certificate of waste, Texas Notice of Registration (NOR) analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician

cc: Terry James, Llano-Permian Environmental
File: 101-130

Attachments

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, Inc.

ADRESS 8870 West Loop 338 Odessa TX 79763

GENERATING SITE 8870 West Loop 338 (Pipe Plant) Odessa TX 79763

COUNTY Ector STATE Texas

TYPE OF WASTE Sludge and waste water

ESTINATED VOLUME 120 bbl. (5,040 gallons)

GENERATING PROCESS This waste was generated from hydroblasting oilfield pipe.

REMARKS This waste is from the West Lp. (Pipe Plant) facility.

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Fluid Transports (915)573-5421

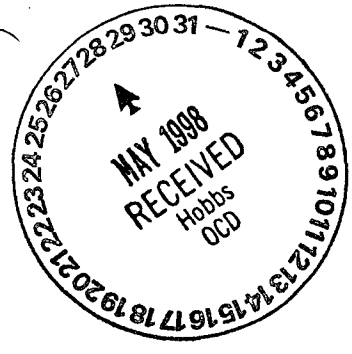
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT _____
SIGNATURE

NAME Robbie O. Walker
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE May 20, 1998



XENCO Laboratories

1301 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0696

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab Batch # 171634-1

Contractor: Nickell Environmental Phone: (915) 520-4100

Address: 19 Barry Rd Midland, TX 797

Project Name: Sump disposal Project Director: Terry James

Project Location: Pipe Plant WLP Project Manager: Robbie Walker

Sampler Signature: Robbie Walker Project No.: WEA116-0000 Pipe Plant

No. of Containers Total

No coolers this shipment: Contractor COC #

Carrier: FedEx Quote #:

Airbill No: 147701793 1 P.O. No:

SAMPLE CHARACTERIZATION

Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P,G	Preservative Ice	Preservative Other	Sample Description
SP	7/15	7:15					X	32 oz	G	X		Sump Sludge

Unl Diss Ext Unknown

Waste Oil

PIT No: Tank No:

BTEX (602/8020/8260)	TPH (418.1)	TCLP Metals	RCI	TCLP VOA	TCLP SVOA	Please Hold	LAB ID #
X	X	X	X	X			1
							2
							3
							4
							5
							6
							7
							8
							9
							10

Turn-around: - ASAP - 24 hrs 48 hrs Standard

Remarks

MAY 1998 RECEIVED HOBBS OCD

Relinquished by: Signature	Date	Time	Received by: Signature	Date	Time
Robbie Walker	7/15/97	9:15			
			Received for Laboratory by:	7-16-97	1530

Remarks

JUL-24-1997 10:28 NICKELL ENVIRONMENTAL

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171634-001 SP
Ignit./F.P. Analyzed by EPA 1010	Date Analyzed - Analytical Results	deg. F
	Jul 22, 1997	
Ignitability, Pensky-Martens	> 180	
TCLP Metals Analyzed by EPA1311/6010	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)
	Jul 18, 1997	
Arsenic	< 0.5	
Barium	1.3	
Cadmium	< 0.10	
Chromium	< 0.5	
Lead	< 0.5	
Silver	< 0.08	
Selenium	< 0.4	
TCLP Mercury Analyzed by EPA 7470	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)
	Jul 22, 1997	
Mercury	< 0.022	
Cyanide RCI Analyzed by SW846 7.3.3	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)
	Jul 22, 1997	
Cyanide	< 0.5	
Sulfide RCI Analyzed by SW846 7.3.4	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)
	Jul 22, 1997	
Sulfide	< 0.5	
pH Analyzed by EPA 9045	Date Analyzed - Analytical Results	S.U.
	Jul 18, 1997	
pH, Electrometric	7.30	
TCLP S.V. Analyzed by EPA 8270	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)
	Jul 21, 1997	

RECEIVED MAY 1998 Hobbs OCD

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

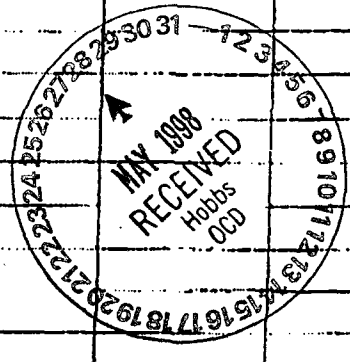
Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171634-001 SP
1,4-Dichlorobenzene		< 0.513
2,4-Dinitrotoluene		< 0.051
Hexachlorobenzene		< 0.043
Hexachlorobutadiene		< 0.205
Hexachloroethane		< 0.513
2-Methylphenol		< 5.128
3-Methylphenol		< 5.128
4-Methylphenol		< 5.128
Nitrobenzene		< 0.513
Pentachlorophenol		< 5.128
Pyridine		< 0.513
2,4,5-Trichlorophenol		< 5.128
2,4,6-Trichlorophenol		< 0.513
TCLP Vol. Analyzed by EPA1311/8260	**Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)**	
	Jul 22, 1997	
Benzene		< 0.05
2-Butanone		< 4.00
Carbon Tetrachloride		< 0.05
Chloroform		< 0.25
1,2-Dichloroethane		< 0.05
1,1-Dichloroethene		< 0.05
Tetrachloroethene		< 0.05
Trichloroethene		< 0.05
Vinyl chloride		< 0.025
Chlorobenzene		< 2.00



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Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

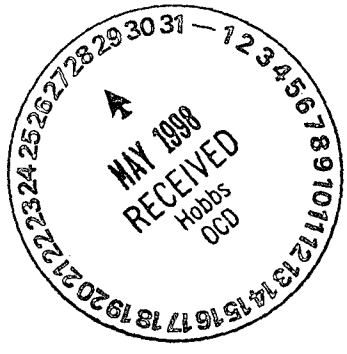
Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171634-001					
	Field ID:	SP					
	Depth:						
TPH Analyzed by EPA 418.1		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 21, 1997					
Total Petroleum Hydrocarbons		10300					



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Edward H. Yonemoto, Ph.D.
QA/QC Manager

IHW020 *** TEXAS NATURAL RESOURCE CONSERVATION COMMISSION *** Page:
Notice of Registration Date: 02/20/98
Industrial and Hazardous Waste

75327 Weatherford U.S., Inc.

*** WASTE INFORMATION ***

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
3010307		Active	01/26/94	Off		No

Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

---

00116951 1 Active 01/26/94 Off No

Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricants, dirt, paint, scale, and corrosion products/August 1993.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

#: 0116951

*

60C1203H H Active 08/05/94 Off No No

Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash

60022021H H Active 08/05/94 Off No

Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy aromatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1 Active 08/05/94 Off No

Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-Hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

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Hobbs
OCD

75027 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059032 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063101 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance, to be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



75127 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						

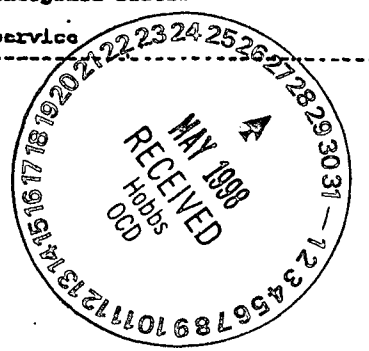
60092091H H Active 08/05/94 Off No
Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60102091 1 Active 08/05/94 Off No
Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipment - general maintenance.
Form Code: 209 Organic paint, ink, lacquer, or varnish
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No
Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.
Form Code: 409 Other non-halogenated organic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60122111H H Active 08/05/94 Off No
Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and equipment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.
Form Code: 211 Paint thinner or petroleum distillates
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60133191 1 Active 08/05/94 Off No
Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code | Waste Class | Status | Date of Status | Managed Onsite/ Offsite | Radio-active | TNRCC Audit Complete

**** Active Wastes ****

6014309H H Active 08/05/94 Off No

Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.
Form Code: 309 Batteries or battery parts, casings, cores
EPA Hazardous Waste Numbers: D002 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A55 Filter/Battery replacement
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

6015J101 1 Active 08/05/94 Off No

Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.
Form Code: 310 Spent solid filters or absorbents (inorganic)
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

6016J081 1 Active 08/05/94 Off No

Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

6017J061 1 Active 08/05/94 Off No

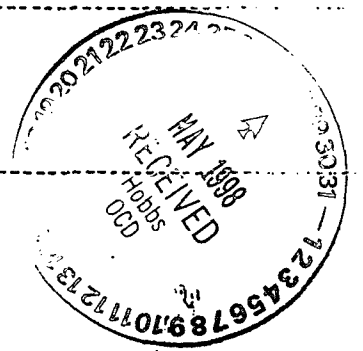
Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

6018J961 1 Active 08/05/94 Off No

Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

6019595I 1 Active 09/18/95 Off No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.
Form Code: 595 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
60203071 1		Active	08/05/94	Off		No

Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No
Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 03/05/94 Off No
Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No
Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No
Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
***** Active Wastes *****						

60253101 H — Active — 08/05/94 — Off — No

Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1
Form Code: 310 Spent solid filters or adsorbents (inorganic)
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes:
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found — 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Paint filters/hazardous

60264891 1 — Active — 08/05/94 — Off — No

Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60283191 1 — Active — 12/28/96 — Off — No

Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

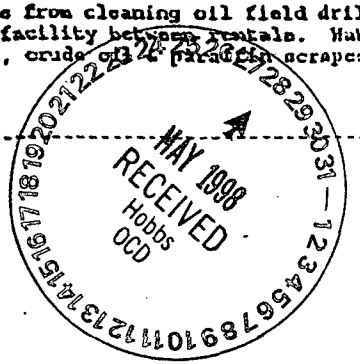
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6029209H H — Active — 09/18/95 — Off — No — No

Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found — 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60304891 1 — Active — 09/18/95 — Off — No

Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Waste includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
** Active Wastes **						
6031109H	H	Active	09/18/95	Off	No	No

Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A03 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

990001	H	Active	Off	No	

Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:

* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

00196951	1	Inactive 09/18/95	PA	No	No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00234891	1	Inactive 09/18/95	HA	No	No

Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None.
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.



06/18/99 12:14 ☎5053933615 CRI
P. O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

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

RECEIVED
JUN 18 1999
Environmental Bureau
Oil Conservation Division

☑002 Originated 8/8/

Submit Origi
Plus 1 Co
to appropria
District Offi

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator **Halliburton Energy**
Verbal Approval Received: Yes ☒ 6-21-99 No ☐	5. Originating Site **Artesia Facility**
2. Management Facility Destination **Controlled Recovery, Inc.**	6. Transporter **CRI**
3. Address of Facility Operator **P. O. Box 388, Hobbs**	8. State **NM**
7. Location of Material (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.

BRIEF DESCRIPTION OF MATERIAL:

Analytical ,chain of custody submitted previously to Martyne Kieling. I am enclosing a certificate of waste status. The material was generated by the washing of equipment.

Faxed to Martyne Kieling (per Scott Nelson with Halliburton after his conversation with Martyne).

06-003

I will mail a copy of this to Donna Williams Dist office

This C-138 Replaces Sundance Services C-138 Dated 6-8-99 For same waste. MJK

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

SIGNATURE: Kath Harper Waste Management Facility Authorized Agent TITLE: Bookkeeper DATE: 6-18-99

TYPE OR PRINT NAME: Kath Harper TELEPHONE NO. (505) 383-1079

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: Martyne J Kieling TITLE: Environmental Geologist DATE: 6-18-99

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Halliburton Energy Services

ADDRESS 2311 S. First Artesia, NM

GENERATING SITE Sams

COUNTY _____ STATE NM

TYPE OF WASTE solids / liquids

ESTIMATED VOLUME ~~30 yards~~ 40 yards

GENERATING PROCESS Grit from washing of equipment

REMARKS _____

NMOCD FACILITY ~~Stanolind~~ CRI CRI

TRUCKING COMPANY ~~Key Energy (Stanolind)~~ or Bonta

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT Scott Nelson
SIGNATURE

NAME Scott Nelson
PRINTED

ADDRESS 5801 Lovington Hwy
Hobbs, NM 88240

DATE 6-8-99

Controlled Recovery, Inc.
P.O. Box 388 Hobbs, NM 88241
Phone: (505)393-1079 Fax: (505)393-3615

CRI

Fax

To:	MARTYNE KIELING	**From:**	KATH
Fax:	(505) 827-8177	**Pages:**	3, including cover
Phone:		**Date:**	6-18-99
Re:		**CC:**	

☐ **Urgent** X **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:** MARTYNE, HERE IS A C-138 FOR HALLIBURTON ENERGY, ARTESIA. SCOTT NELSON SAID HE HAD SPOKEN TO YOU, AND ONLY NEEDED FOR ME TO SUBMIT A C-138. I ALSO AM SENDING HIS COPY OF THE CORRECTED CERTIFICATE OF WASTE. PLEASE LET ME KNOW IF WE HAVE VERBAL APPROVAL ON THIS ASAP, AS HE WANTS TO SET THIS UP FOR TUESDAY AM. LET ME KNOW IF YOU NEED ANYTHING ELSE. IF POSSIBLE LET ME KNOW BEFORE 3:00 TODAY.

THANKS, KATH

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

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

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JUN 14 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

RECEIVED
JUN 11 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Form C-13(
Originated 8/8/9

Submit Origin:
Plus 1 Cop
to appropriat
District Offic

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator HALLIBURTCN ENERGY
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site ARTESIA FACILITY
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter KEY ENERGY
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88231	8. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) 2311 S. First	Artesia, NM 88210

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analtyical results are for Halliburton Energy's Artesia Facility. This waste is generated by the washing of trucks and flowing into the wash rack sump. I have included a certificate of waste status and chain of custody. sundance Services would like approval to accept this into our Parabo disposal facility.

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

SIGNATURE: Donna Roach (Waste Management Facility Authorized Agent) TITLE: OFFICE MGR DATE: 6-8-99

TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna L. Williams TITLE Environmental Eng. DATE: 6-10-99

APPROVED BY: Martyne J. Kieling TITLE Environmental Geologist DATE: 6/14/99

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY / GENERATOR Halliburton Energy Services

ADDRESS 2311 S. First Artesia, NM

GENERATING SITE Same

COUNTY _____ STATE NM

TYPE OF WASTE solids / liquios

ESTIMATED VOLUME ~~20 yards~~ 40 yards

GENERATING PROCESS Grit from washing of equipment

REMARKS _____

NMOCD FACILITY Sundance

TRUCKING COMPANY Key Energy (Rowland) or Banta

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Sections 2613.

AGENT Scott Nelson
SIGNATURE

NAME Scott Nelson
PRINTED

ADDRESS 5801 Lovington Hwy
Hobbs, NM 88240

DATE 6-8-99

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 3511 GLENWOOD • MIDLAND, TX 79703
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

Company Name: Halliburton Energy Services	BILL TO: PO #:
Project Manager: Scott Nalyor	Company: HES
Address: ~~5801~~ 2311 S First	Attn: Scott Nalyor
City: Artesia State: NM Zip: 88210	Address: 5801 Lovington Hwy
Phone #: 505 746 2758	City: Hobbs
Fax #:	State: NM Zip: 8824
Project #: Washunk gas	Phone #: 505 392 0746
Project Name:	Fax #: 505 392 1412
Project Location: Artesia NM	

LAB I.D. #	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERVATION: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H3668-1	Artesia Washunk gas		1									X	5-31-98	2:00pm

ANALYSIS REQUEST: TCLP | THC | BTEX | RCI | [illegible]

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

Sampler Relinquished:	Date: 5-31-98	Received By:	Phone Result: ☑ Yes ☐ No Additional Fax #:
Relinquished By:	Time: 2:00 pm	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No
	Date: 5-31-98		REMARKS:
Delivered By: (Circle One)	Time: 2:00pm	Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

UPS - Fed Ex - Bus - Other:

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ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S. FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/04/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM
Lab Number: H3668-1
Sample ID: ARTESIA WASHRACK GRIT

Analysis Date: 06/02/98
Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL & INTACT
Sample Received By: JS
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3668-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.095	95	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.088	88	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.095	95	0.100
Chloroform	6.0	<0.005	<0.005	0.103	103	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.100	100	0.100
Benzene	0.5	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.095	95	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.101	101	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.096	96	0.100
Chlorobenzene	100	<0.005	<0.005	0.101	101	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.108	108	0.100

	% RECOVERY
Dibromofluoromethane	114
Toluene-d8	113
Bromofluorobenzene	114

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

6/4/98
Date

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable ... or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, ... based upon any of the above-stated reasons or otherwise.

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/04/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM

Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL AND INTACT
Sample Received By: JS
Analyzed By: BC/AH

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		06/03/98	06/03/98	06/03/98	06/03/98
H3668-1	ARTESIA WASHRACK GRIT	Not Reactive	Not Reactive	7.72	Nonflammable
Quality Control		NR	NR	7.05	NR
True Value QC		NR	NR	7.00	NR
% Accuracy		NR	NR	101	NR
Relative Percent Difference		NR	NR	0.7	NR

METHOD: EPA SW 846-7.3, 7.2, 1030 (proposed)

Chemist

6/4/98
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S. FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/04/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM
Lab Number: H3668-1
Sample ID: ARTESIA WASHRACK GRIT

Analysis Date: 06/03/98
Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL & INTACT
Sample Received By: JS
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3668-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.022	44	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.041	82	0.050
o-Cresol	200	<0.020	<0.005	0.035	70	0.050
m, p-Cresol	200	<0.020	<0.005	0.037	74	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.038	76	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.056	112	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.043	86	0.050
2,4,6-Trichloraphanol	2.00	<0.020	<0.005	0.044	88	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.049	98	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.053	106	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.048	96	0.050
Pentachlorophenol	100	<0.020	<0.005	0.049	98	0.050

	% RECOVERY
Fluorophenol	34
Phenol-d5	33
Nitrobenzene-d5	76
2-Fluorobiphenyl	89
2,4,6-Tribromophenol	80
Terphenyl-d14	80

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke, Ph. D.

6/4/98
Date

...contract or tort, shall be limited to the amount paid by client for analyses...
...of the applicable

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/16/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM

Sampling Date: 05/31/98
Sample Type: SOIL
Sample Condition: COOL AND INTACT
Sample Received By: JS
Analyzed By: JC

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		06/05/98	06/05/98	06/05/98	06/08/98	06/05/98	06/11/98	06/15/98	06/05/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3668-1	ARTESIA WASHRACK GRIT	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.184	2.037	1.850	2.030	2.008	1.985	0.0108	0.205
True Value QC		0.200	2.000	2.000	2.000	2.000	2.000	0.0100	0.200
% Recovery		92	102	87	101	100	95	108	103
Relative Standard Deviation		8.5	6.0	2.1	15	11	17	0.8	15
METHODS: EPA 1311, 600/4-91/010		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

6/16/98
Date

H3668-2.XLS

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES
PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
2311 S FIRST
ARTESIA, NM 88210
FAX TO:

Receiving Date: 05/31/98
Reporting Date: 06/05/98
Project Number: NOT GIVEN
Project Name: WASHRACK GRIT
Project Location: ARTESIA, NM

Sampling Date: 05/31/98
Sample Type: SOLID
Sample Condition: COOL & INTACT
Sample Received By: JS
Analyzed By: BC

LAB NO.	S	SAMPLE ID	TPH (mg/Kg)	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)
ANALYSIS DATE:			06/03/98	06/03/98	06/03/98	06/03/98	06/03/98
H3668-1		ARTESIA	40400	<0.002	<0.002	<0.002	<0.006
		WASHRACK GRIT					
Quality Control			271	0.093	0.092	0.092	0.281
True Value QC			251	0.100	0.100	0.100	0.300
% Recovery			108	93.4	92.4	91.8	93.8
Relative Percent Difference			7.0	9.8	10.4	10.1	8.8

METHODS: TRPHC - EPA 600/7-79-020, 418.1; BTEX - EPA SW846-8020, 8260

Chemist

06/5/98
Date

H3668-1.XLS

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

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

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JUN 0 8 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ — OK LeMaster DS Verbal Approval Received: Yes ☒ No ☐	4. Generator Weatherford Enterra
	5. Originating Site Odessa Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Bergstein Services
3. Address of Facility Operator P.O. Box 388 Hobbs,	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8870 West Loop 338	Odessa, Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Odessa facility. The material was generated by rattling of oil field pipe withat mechanical wire brush. I have included a certificate of waste, a chain of custody, and NORM data sheet.

Sent to Hobbs 6/9/98

05-007

Estimated Volume 50 yards cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 05/29/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Env Engr DATE: 6/1/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 6/9/98

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas, 79701 ○ Telephone (915) 522-2133 ○ Telefax (915) 522-2180

May 28, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 50 cubic yards of pipe scale generated by Weatherford Enterra Inc. (Weatherford). Weatherford has generated this waste from rattling of oilfield pipe with a mechanical wire brush.

Weatherford generates this waste at:
8870 West Loop 338
Odessa, TX 79764
TX ID #75327
EPA ID #TXD988025755

The transporter of this waste will be Bergstein Services of Lubbock, Texas. Bergstein Services is at:

P.O. Box 2507
Lubbock, TX 79408
(806) 741-1080
TX ID #83346
EPA ID # TXR000006411

Please find attached copies of the certificate of waste, Texas Notice of Registration (NOR), NORM data sheet, analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician



cc: Terry James, Llano-Permian Environmental
File: 101-130

Attachments

LPE

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, Inc.

ADRESS 8870 West Loop 338 Odessa TX 79763

GENERATING SITE 8870 West Loop 338 (Pipe Plant) Odessa TX 79763

COUNTY Ector STATE Texas

TYPE OF WASTE Sludge and waste water

ESTINATED VOLUME 50 cubic yards

GENERATING PROCESS This waste was generated from rattling of oilfield pipe with a mechanical wire brush.

REMARKS This waste is from the West Lp. (Pipe Plant) facility.

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Bergstein Services (806)741-1080

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT _____
SIGNATURE

NAME Robbie O. Walker
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE May 28, 1998



NORM DATA SHEET

Date: 21-Apr-98 LPES Project No: 101-030

Location: Weatherford Enterra

Address: 8870 West Loop 338, Odessa, Texas 79764

Item(s) Description: Pipe Scale

Instrumentation:

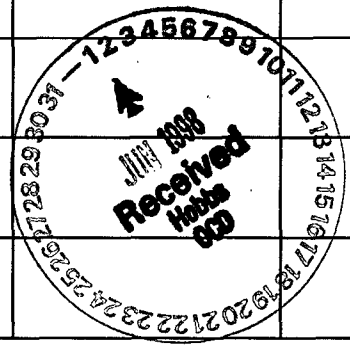
Meter Type: Ludlum model 3 Probe Number/Serial: PR151588/Model 44-2

Date Last Calibrated: 24-Mar-98 Background Radioactivity: (6-8)

Serial Number: 82867 Certificate of Calibration Attached: X Yes __No

Item Radioactivity: (μR/hour at 1 centimeter)

Equipment#/ID	Reading (μR/hr)	Equipment#/ID	Reading(μR/hr)
Pipe Scale in Cleaner Housing	8		
Pipe Scale in Drums	(8-35)		
Pipe Scale in 3 Drums	(8-12)		
Pipe Scale in Hydroblaster Cleaner Housing	8		



Weatherford Representative: Dale Halsey Title: Radiation Safety Officer

LPES Representative: Robbie Walker Title: Environmental Technician

Materials Disposition: (where applicable)

Release for Sale ( ) Do Not Release ( ) ***Hold for Specific Instructions

Planned Disposal Facility: Controlled Recovery, Inc.

File 101-130

Page____of____

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Ste. 9 Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

LAB Order ID #:

Company Name: Llano Permian Environmental Phone #: (915) 522-2133

Address: 10 31 Andres Hwy Midland TX Fax #: (915) 522-2180

Contact Person: Robbie Walsh

Invoice to: (If different from above) Weatherford 8870 W Lp 338 Odessa TX 79764 Attn Mike

Project #: 101-130 Project Name: Pipe Scale @ Pipe Plant

Project Location: Odessa Sampler Signature: Robbie Walsh

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME
	PS1	2	32oz				X			X		4/22/98	11:30

MTBE 8020/602	BTEX 8020/602	TPH	PAH 8270	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8080/608	BOD, TSS, PH						Turn Around Time different from standard	Hold
		X			X	X	X	X												

Received by: Odessa, Texas 79760 Phone: (915) 563-1800 Fax: (915) 563-1713

Relinquished by: Robbie Walsh Date: 4/23/98 Time: 4:20 PM

Received by: Helen Shelton Date: 4/23/98 Time: 4:30 PM

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Date: Time:

LAB USE ONLY

Intact Y / N

Headspace Y / N

Temp °C

Log-In Review

REMARKS:

Carrier # Greyhound

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C. 2 Samples - HS

CHART COPY

TRACE ANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention: Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx 79701

Date: May 03, 1998
Date Rec: 4/24/98
Project: 101-130
Proj Name: Sampling Of Pipe Scale, Pipe Plant
Proj Loc: Odessa

Lab Receiving # : 9804000408
Sampling Date: 4/22/98
Sample Condition: Intact and Cool
Sample Received By: VW

TCLP Vol in Solid (mg/L)	EPA Limit	Reporting Limit	Method Blank	T96818 BS1	QC	RPD	%EA	%IA
Vinyl Chloride	0.2	0.05	ND	ND	95	4	84	95
1,1-Dichloroethene	0.7	0.05	ND	ND	95	1	91	95
Methyl Ethyl Ketone	200.0	0.50	ND	ND	102	1	114	102
Chloroform	6.0	0.05	ND	ND	92	1	100	92
1,2-Dichloroethane	0.5	0.05	ND	ND	90	1	81	90
Benzene	0.5	0.05	ND	ND	97	1	35	97
Carbon Tetrachloride	0.5	0.05	ND	ND	88	0	107	88
Trichloroethene	0.5	0.05	ND	ND	107	2	96	107
Tetrachloroethane	0.7	0.05	ND	ND	107	1	78	107
Chlorobenzene	100.0	0.05	ND	ND	101	0	84	101
1,4-Dichlorobenzene	7.5	0.05	ND	ND	97	2	86	97

	% RECOVERY
Dibromofluoromethane	101
Toluene-d8	98
4-Bromofluorobenzene	107



TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
TCLP Vol	EPA 1311	4/30/98	EPA 8260	5/1/98	AG	100 ea	100 ea

Director, Dr. Blair Leftwich

5-3-98
Date

TRACEANALYSIS, INC.

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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E-Mail: lab@traceanalysis.com

May 27, 1998
Receiving Date: 04/24/98
Sample Type: Pipe Scale
Project No: 101-130
Project Location: Odessa, TX

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

Extraction Date: 04/27/98
Analysis Date: 04/29/98
Sampling Date: 04/22/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Sampling of Pipe Scale
Pipe Plant

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T96818	PS 1	<0.20	<0.10	<0.02	<0.05	<0.10	<0.05	0.43	<0.010
QC	Quality Control	0.99	0.99	0.97	0.99	1.0	0.20	0.98	0.051
		0.98	1.0	0.98	0.99	1.0	0.20	0.98	0.053
Reporting Limit		0.20	0.10	0.02	0.05	0.10	0.05	0.10	0.010
RPD		17	16	0	5	0	16	0	2
% Extraction Accuracy		80	85	95	95	95	68*	100	116
% Instrument Accuracy		98	99	97	99	100	100	98	104

JUN 1998
Received
Hobbs
OCD

LRB SPIKES: Ag - RPD = 16
% Extraction Accuracy = 80
% Instrument Accuracy = 100

***NOTE: Extraction Accuracy out of accepted limits of 75-125% because of matrix effects. LCS Extraction Accuracy shows test was in control.**

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: SA/HC
METHODS: EPA SW 846-1311, 6010B, 7470
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.50 mg/L Ag; 0.050 mg/L Hg
TCLP METALS QC: 1.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.20 mg/L Ag; 0.050 mg/L Hg.

Director, Dr. Blair Leftwich

5-27-98
Date

Sent By: TRACEANALYSIS; 8067941296; 27 May 98 12:37PM; Job 518; Page 5/5

TRACEANALYSIS, INC.

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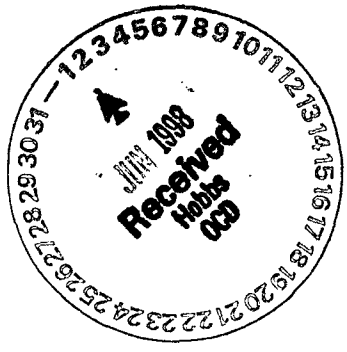
ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

May 27, 1998
Receiving Date: 04/24/98
Sample Type: Pipe Scale
Project No: 101-130
Project Location: Odessa, TX

Extraction Date: 04/27/98
Analysis Date: 04/29/98
Sampling Date: 04/22/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Sampling of Pipe Scale

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit	T96818 PS 1	QC	RPD	%EA	Pipe Plant %IA
Pyridine	5.0	0.05	ND	87	184*	2	84
1,4-Dichlorobenzene	7.5	0.05	ND	80	3	70	100
o-Cresol	200.0	0.05	ND	79	3	64	99
m,p-Cresol	200.0	0.05	ND	83	3	112	104
Hexachloroethane	3.0	0.05	ND	83	6	70	104
Nitrobenzene	2.0	0.05	ND	86	6	83	108
Hexachlorobutadiene	0.5	0.05	ND	96	4	90	120
2,4,6-Trichlorophenol	2.0	0.05	ND	79	5	77	99
2,4,5-Trichlorophenol	400.0	0.05	ND	74	3	69	93
2,4-Dinitrotoluene	0.13	0.05	ND	82	8	87	103
2,4-D	10.0	0.05	ND	77	7	104	98
Hexachlorobenzene	0.13	0.05	ND	73	5	74	91
2,4,5-TP	1.0	0.05	ND	73	10	98	91
Pentachlorophenol	100.0	0.05	ND	66	11	63	83

Surrogates	% RECOVERY
2-Fluorophenol	44
Phenol-d6	32
Nitrobenzene-d5	76
2-Fluorobiphenyl	73
2,4,6-Tribromophenol	74
Terphenyl-d14	84



ND - Not Detected

***NOTE: RPD out of limits <20%.**

Methods: EPA SW 846-1311, 8270
CHEMIST: MB

Director, Dr. Blair Leftwich

5-27-98
DATE

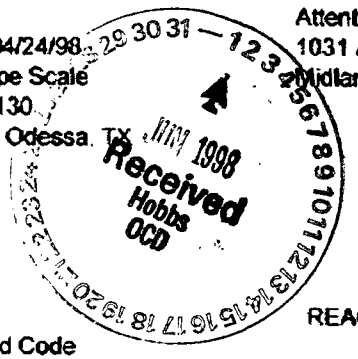
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E-Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
LLANO PERMIAN ENVIRONMENTAL
Attention: Robbie Walker
1031 Andrews Hwy., Suite 207
Midland, TX 79701

May 27, 1998
Receiving Date: 04/24/98
Sample Type: Pipe Scale
Project No: 101-130
Project Location: Odessa, TX

Extraction Date: 04/30/98
Analysis Date: 04/30/98
Sampling Date: 04/22/98
Sample Condition: Intact & Cool
Sample Received by: VW
Project Name: Sampling of Pipe Scale
Pipe Plant



TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
T96818	PS 1	Non-reactive	<10	<2.5	Non-corrosve	6.8	Nonignitable
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	---	---	---	---
% Instrument Accuracy		---	---	---	---	100	---

METHODS: EPA SW 846-Chapter 7 7.3, Chapter 7 7.2, Chapter 7 7.1
CHEMIST: RC

Director, Dr. Blair Leftwich

5-27-98
DATE

Sent By: TRACEANALYSIS; 8067941296; 27 May 98 12:36PM; Job 518; Page 3/5

TRACEANALYSIS, INC.

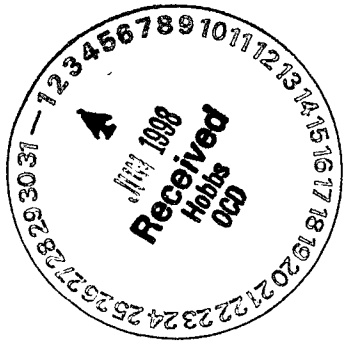
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4725 Ripley Avenue, Suite A El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
E Mail: lab@traceanalysis.com

ANALYTICAL RESULTS FOR
Llano Permian Environmental
Attention Robbie Walker
1031 Andrews Hwy, Ste. 207
Midland Tx.79701

Date: Apr 29, 1998
Date Rec: 4/24/98
Project: 101-130
Proj Name: Sampling Of Pipe Scale,Pipe Plant
Proj Loc: Odessa

Lab Receiving # : 9804000408
Sampling Date: 4/22/98
Sample Condition: Intact and Cool
Sample Received By: VW

TA#	Field Code	MATRIX	C6-C10 (mg/Kg)	>C10-C28 (mg/Kg)	C6-C28 (mg/Kg)
T96818	PS1	Solid	<50	2,050	2,050
Method Blank			<50	<50	<50
Reporting Limit			50	50	50
QC			314	260	574



RPD	16	10	13
% Extraction Accuracy	91	83	87
% Instrument Accuracy	126	104	115

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/Kg)
TX1005	N/A	4/27/98	TX1005	4/27/98	MS	250 each	250 each

Director, Dr. Blair Leftwich

4-29-98
Date

75327 Weatherford U.S., Inc.

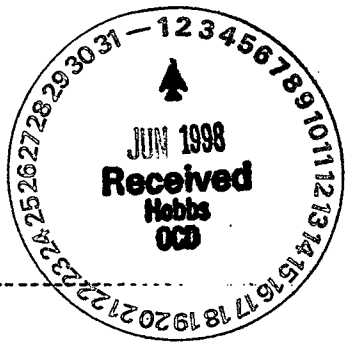
**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
00103071		Active	01/26/94	Off		No

Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

00116951 1 Active 01/26/94 Off No
Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricants, dirt, paint, scale, and corrosion products/August 1993. #:
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

60C1203H H Active 08/05/94 Off No No
Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash



6002203H H Active 08/05/94 Off No
Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy aromatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1 Active 08/05/94 Off No
Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

IIH020 *** TEXAS NATURAL RESOURCE CONSERVATION COMMISSION *** Page:
Notice of Registration Date: 08/20/97
Industrial and Hazardous Waste

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059032 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063102 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance. to be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

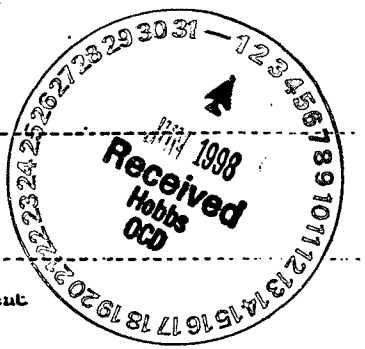
60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

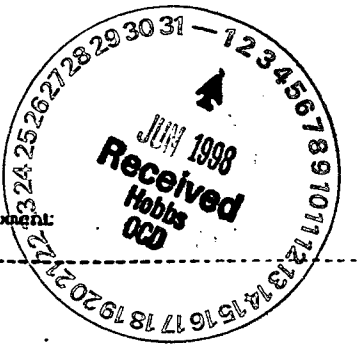
Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60092098 H Active 08/05/94 Off No

Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.

Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC



60102091 1 Active 08/05/94 Off No

Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipment - general maintenance.

Form Code: 209 Organic paint, ink, lacquer, or varnish
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No

Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.

Form Code: 409 Other non-halogenated organic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60122111 H Active 08/05/94 Off No

Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and equiment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.

Form Code: 211 Paint thinner or petroleum distillates
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60133191 1 Active 08/05/94 Off No

Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.

Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

* 60133191

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

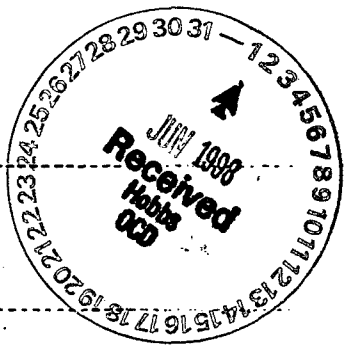
****** Active Wastes ******

60143091 H Active 08/05/94 Off No

Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.
Form Code: 309 Batteries or battery parts, casings, cores
EPA Hazardous Waste Numbers: D002 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A55 Filter/Battery replacement
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

60153101 1 Active 08/05/94 Off No

Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.
Form Code: 310 Spent solid filters or absorbents (inorganic)
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



60163081 1 Active 08/05/94 Off No

Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers.
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60174061 1 Active 08/05/94 Off No

Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60182961 1 Active 08/05/94 Off No

Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60196951 1 Active 09/18/95 Off No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.
Form Code: 595 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						

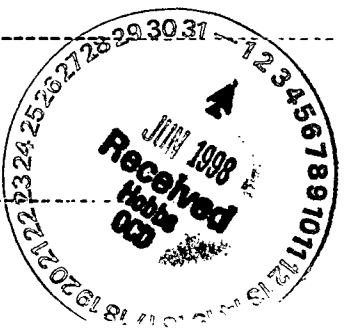
60203071 1 Active 08/05/94 Off No
Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No
Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 08/05/94 Off No
Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No
Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No
Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	State Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

6025310H H Active 08/05/94 Off No

Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1

Form Code: 310 Spent solid filters or adsorbents (inorganic)

EPA Hazardous Waste Numbers: D001 F003 F005

Current Management Units: None

* Origin Codes:

* Source Codes: A21 Painting

* Measurement Points: 1 Before mixing

* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

Company's Internal Code(s): Paint filters/hazardous

60264891 1 Active 08/05/94 Off No

Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.

Form Code: 489 Petroleum contaminated solids

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60283191 1 Active 12/28/96 Off No

Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.

Form Code: 319 Other waste inorganic solids

Current Management Units: None

* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

---

6029209H H Active 09/18/95 Off No No

Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant

Form Code: 209 Organic paint, ink, lacquer, or varnish

EPA Hazardous Waste Numbers: D001 F003 F005

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

* Source Codes: A21 Painting

* Measurement Points: 1 Before mixing

* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

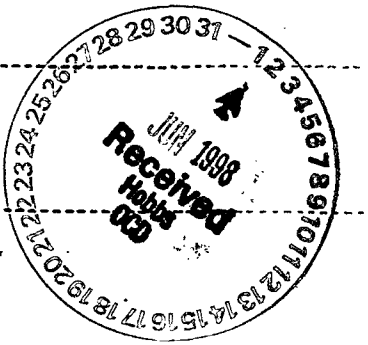
60304891 1 Active 09/18/95 Off No

Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Waste includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.

Form Code: 489 Petroleum contaminated solids

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



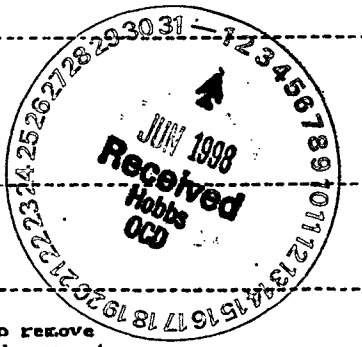
75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THROC Audit Complete

** Active Wastes **

6031109H H Active 09/18/95 Off No No
Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A01 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

990001 H Active Off No
Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:



* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

00196951 1 Inactive 09/18/95 PA No No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00214891 1 Inactive 09/18/95 PA No No
Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

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

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

RECEIVED
JUN 01 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/
Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ No ☐ (per LaRue B)	4. Generator Weatherford Enterra
	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Maclaskey
3. Address of Facility Operator P.O. Box 388 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 3000 West County Road	Hobbs New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Hobbs facility. The material was generated by the washing of oil field tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

05-006

MAY 1998
RECEIVED
Hobbs
OCD

8/1/98
Sand + trace

Estimated Volume 30 BBLS cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 05/28/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Field Engr DATE: 5/28/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 6/1/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford

ADDRESS 3000 W. County Road

GENERATING SITE 3000 W. County Road

COUNTY Lea STATE NM

TYPE OF WASTE sump sludge

ESTIMATED VOLUME 1200 gallons

GENERATING PROCESS Cleaning of oil field tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Maclaskey Oil Field services

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Duane Bryant
SIGNATURE

NAME Duane Bryant
PRINTED

ADDRESS P.O. Box 2250

Hobbs NM 88240

DATE 5-28-98

XENCO Laboratories

11381 Meadowglen Suite I, Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab. Batch # 171722-H

Contractor: Nickell Env Phone: (915) 520-4700

Address: 19 Barry Rd Midland, TX

Project Name: Sump Project Director: Chris Stapp

Project Location: Hobbs NM Project Manager: Robbie Walker

Sampler Signature: Robbie Walker Project No.: WEA512-0000

No. coolers this shipment: 1 Contractor COC #

Carrier: FedEx Quote #:

Airbill No.: 14770/7920 P.O. No.:

SAMPLE CHARACTERIZATION											Preservative		Ust Diss Ker Unknown Waste Oil PIT No: Tank No:	No of CONTAINERS Total	BTEX (8020/8260)	TPH (418.1)	TCLP Metals	TCLP VOA	TCLP SVOA	RCI	Please Hold	Turn-around: ASAP, 24 hrs, 48 hrs, Standard	LAB ONLY ID #
Field ID	Date	Time	DEPTH	SOIL	WATER	COMP	GRAB	Container Size	Container Type P, G		Ice	Other	Sample Description									Remarks	
1 S1	7/30	8:30am					X	32	G		X		Sump Sludge	1		X	X	X	X	X			1
2																							2
3																							3
4																							4
5																							5
6																							6
7																							7
8																							8
9																							9
10																							10

Relinquished by: (Company)	DATE	TIME	Received by:	Signature	DATE	TIME
Robbie Walker	7/30	2:00pm				
			Received For Laboratory by:	Angie R. Gurley	7/31/97	10:00

Remarks

Pink (Contractor) Yellow & White (Lab)

= Pre-scheduling is recommended

Precision Analytical Services

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XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71722

Nickell Environmental

Project Name: Sump

Project ID: WEA-512-0000
Project Manager: Robbie Walker
Project Location: Hobbs, NM

Date Received in Lab: Jul 31, 1997 10:00 by AS
Date Report Faxed: Aug 13, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:*	171722-001 S1					
Ignit./F.P. Analyzed by EPA 1010	Date Analyzed - Analytical Results	deg. F					
	Aug 4, 1997						
Ignitability, Pensky-Martens		> 180					
TCLP Metals Analyzed by EPA1311/6010	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)					
	Aug 7, 1997						
Arsenic		< 0.6					
Barium		< 1.1					
Cadmium		< 0.11					
Chromium		< 0.6					
Lead		< 0.6					
Silver		< 0.09					
Selenium		< 0.4					
TCLP Mercury Analyzed by EPA 7470	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)					
	Aug 6, 1997						
Mercury		< 0.022					
Cyanide RCI Analyzed by SW846 7.3.3	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)					
	Aug 4, 1997						
Cyanide		< 0.5					
Sulfide RCI Analyzed by SW846 7.3.4	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)					
	Aug 4, 1997						
Sulfide		< 0.5					
pH Analyzed by EPA 9045	Date Analyzed - Analytical Results	S.U.					
	Jul 31, 1997						
pH, Electrometric		7.00					
TCLP S.V. Analyzed by EPA 8270	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)					
	Aug 5, 1997						

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward F. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71722

Nickell Environmental

Project Name: Sump

Project ID: WEA-512-0000
Project Manager: Robbie Walker
Project Location: Hobbs, NM

Date Received in Lab: Jul 31, 1997 10:00 by AS
Date Report Faxed: Aug 13, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:*	171722-001 S1					
1,4-Dichlorobenzene		< 0.513					
2,4-Dinitrotoluene		< 0.051					
Hexachlorobenzene		< 0.043					
Hexachlorobutadiene		< 0.205					
Hexachloroethane		< 0.513					
2-Methylphenol		< 5.128					
3-Methylphenol		< 5.128					
4-Methylphenol		< 5.128					
Nitrobenzene		< 0.513					
Pentachlorophenol		< 5.128					
Pyridine		< 0.513					
2,4,5-Trichlorophenol		< 5.128					
2,4,6-Trichlorophenol		< 0.513					
TCLP Vol. Analyzed by EPA1311/8260		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Aug 8, 1997					
Benzene		< 0.05					
2-Butanone		< 4.00					
Carbon Tetrachloride		< 0.05					
Chloroform		< 0.25					
1,2-Dichloroethane		< 0.05					
1,1-Dichloroethene		< 0.05					
Tetrachloroethene		< 0.05					
Trichloroethene		< 0.05					
Vinyl chloride		< 0.025					
Chlorobenzene		< 2.00					

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Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71722

Nickell Environmental

Project Name: Sump

Project ID: WEA-512-0000
Project Manager: Robbie Walker
Project Location: Hobbs, NM

Date Received in Lab: Jul 31, 1997 10:00 by AS
Date Report Faxed: Aug 13, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171722-001					
	Field ID:	S1					
	Depth:						
TPH Analyzed by EPA 418.1	Date Analyzed	Aug 4, 1997					
	Analytical Results	195000					
	ppm (mg/L - mg/Kg)						
Total Petroleum Hydrocarbons							

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A18D53

SW846- 1311/6010 TCLP Metals

Date Validated: Aug 7, 1997 18:58
Date Analyzed: Aug 7, 1997 18:18
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MB
Matrix: Solid

Q.C. Sample ID 171722- 001	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[G]
				QC	LIMITS			QC	LIMITS	
Parameter	Sample Result	Duplicate Result	Method Detection Limit	Relative Difference	Relative Difference	Matrix Spike Result	Matrix Spike Amount	Matrix Spike Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Arsenic	< 0.22	< 0.22	0.22	N.C	20.0	2.04	2.2	91.9	65-135	
Barium	1.00	0.98	0.11	2.0	20.0	1.93	1.1	83.8	65-135	
Cadmium	< 0.056	< 0.056	0.056	N.C	20.0	0.392	0.44	88.3	65-135	
Chromium	< 0.22	< 0.22	0.22	N.C	20.0	1.00	1.1	90.1	65-135	
Lead	< 0.22	< 0.22	0.22	N.C	20.0	1.88	2.2	84.7	65-135	
Selenium	< 0.22	< 0.22	0.22	N.C	20.0	2.36	2.2	106.3	65-135	
Silver	< 0.089	< 0.089	0.089	N.C	20.0	0.679	0.89	76.5	65-135	

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

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XENCO Laboratories

Certificate Of Quality Control for Batch: 17A18D53

SW846- 1311/6010 TCLP Metals

Date Validated: Aug 7, 1997 18:58
Date Analyzed: Aug 7, 1997 18:02
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MB
Matrix: Solid

BLANK SPIKE ANALYSIS

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC LIMITS Blank Spike Recovery %	[F] QC LIMITS Recovery Range %	[G] Qualifier
Arsenic	< 0.22	2.02	2.22	0.22	91.0	65-135	
Barium	0.50	1.55	1.11	0.11	94.6	65-135	
Cadmium	< 0.056	0.417	0.444	0.056	93.9	65-135	
Chromium	< 0.22	1.08	1.11	0.22	95.5	65-135	
Lead	< 0.22	1.95	2.22	0.22	87.8	65-135	
Selenium	< 0.22	2.35	2.22	0.22	105.9	65-135	
Silver	< 0.089	0.761	0.888	0.089	85.7	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch = 17A05C12

EPA 1311/7470 TCLP Mercury

Date Validated: Aug 6, 1997 19:40
Date Analyzed: Aug 6, 1997 17:25
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MB
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC LIMITS Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Mercury	< 0.0011	0.0022	0.0028	0.0011	78.6	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A05012

EPA 1311/7470 TCLP Mercury

Date Validated: Aug 6, 1997 19:40
Date Analyzed: Aug 6, 1997 17:29
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MB
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 171722- 001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS Relative Difference	[E] LIMITS Relative Difference	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC Matrix Spike Recovery	[I] LIMITS Recovery Range	[G] Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Mercury	< 0.0011	< 0.0011	0.0011	N.C	20.0	0.0022	0.0028	78.6	65-135	

Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

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XENCO Laboratories

Certificate Of Quality Control for Batch = 17A11A61

SW- 846 1010 Ignitability, Pensky- Martens

Date Validated: Aug 4, 1997 13:15
Analyst: CG
Date Analyzed: Aug 4, 1997 12:20
Matrix: Solid
QA/QC Manager: Edward H. Yonemoto, Ph.D.

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171722- 001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	deg. F	deg. F	deg. F	%	%	
Ignitability, Pensky-Martens	> 180	> 180	75-180	N.C	15.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A12B69

SW846 7.3.3 Reactive Cyanide

Date Validated: Aug 4, 1997 13:05
Date Analyzed: Aug 4, 1997 11:00
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/kg	[B] Blank Spike Result mg/kg	[C] Blank Spike Amount mg/kg	[D] Method Detection Limit mg/kg	[E] QC LIMITS Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Cyanide	< 0.05	0.09	0.10	0.05	94.5	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch: 17A12B69

SW846 7.3.3 Reactive Cyanide

Date Validated: Aug 4, 1997 13:05
Analyst: CG
Date Analyzed: Aug 4, 1997 11:20
Matrix: Solid
QA/QC Manager: Edward H. Yonemoto, Ph.D.

MATRIX DUPLICATE ANALYSIS

Q.C. Sample ID 171722-001 / Parameter	[A] Sample Result mg/kg	[B] Duplicate Result mg/kg	[C] Method Detection Limit mg/kg	[D] QC Relative Difference %	[E] LIMITS Relative Difference %	[F] Qualifier
Cyanide	< 0.50	< 0.50	0.50	N.C	30.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch 17A12B70

SW846 7.3.4 Reactive Sulfide

Date Validated: Aug 4, 1997 12:55
Date Analyzed: Aug 4, 1997 09:30
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/kg	[B] Blank Spike Result mg/kg	[C] Blank Spike Amount mg/kg	[D] Method Detection Limit mg/kg	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Sulfide	< 0.50	6.48	6.80	0.50	95.3	65-135	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A12B70

SW846 7.3.4 Reactive Sulfide

Date Validated: Aug 4, 1997 12:55
Date Analyzed: Aug 4, 1997 09:50
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171722- 001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	mg/kg	mg/kg	mg/kg	%	%	
Sulfide	< 0.50	< 0.50	0.50	N.C	30.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch - 17A13B30

SW- 846 9045 pH

Date Validated: Aug 1, 1997 09:00 **Analyst:** CY

Date Analyzed: Jul 31, 1997 17:40 **Matrix:** Solid

QA/QC Manager: Edward H. Yonemoto, Ph.D.

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171722- 001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	S.U.	S.U.	S.U.	%	%	
pH, Electrometric	7.000	7.100	0 - 14	1.4	3.0	

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control For Batch 17A34P34

SW846-8270 PAHs by GC-MS

Date Validated: Aug 5, 1997 14:35
Date Analyzed: Aug 4, 1997 19:54
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: MM
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Method Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifier
Acenaphthene	< 0.0040	0.0684	0.0730	0.1000	0.0040	31.0	6.5	68.4	73.0	46-118	
4-Chloro-3-Methylphenol	< 0.0020	0.0564	0.0552	0.1000	0.0020	42.0	2.2	56.4	55.2	23-97	
2-Chlorophenol	< 0.0020	0.0582	0.0562	0.1000	0.0020	40.0	3.5	58.2	56.2	27-123	
1,4-Dichlorobenzene	< 0.0020	0.0750	0.0718	0.1000	0.0020	28.0	4.4	75.0	71.8	36-97	
2,4-Dinitrotoluene	< 0.0020	0.0422	0.0462	0.1000	0.0020	38.0	9.0	42.2	46.2	24-96	
N-Nitroso-di-n-propylamine	< 0.0080	0.0824	0.0780	0.1000	0.0080	38.0	5.5	82.4	78.0	41-116	
4-Nitrophenol	< 0.0080	0.0154	0.0136	0.1000	0.0080	50.0	12.4	15.4	13.6	10-80	
Pentachlorophenol	< 0.0040	0.0418	0.0388	0.1000	0.0040	50.0	7.4	41.8	38.8	9-103	
Phenol	< 0.0020	0.0224	0.0216	0.1000	0.0020	42.0	3.6	22.4	21.6	12-89	
Pyrene	< 0.0040	0.0800	0.0844	0.1000	0.0040	31.0	5.4	80.0	84.4	26-127	
1,2,4-Trichlorobenzene	< 0.0020	0.0760	0.0734	0.1000	0.0020	28.0	3.5	76.0	73.4	39-98	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

09/17/1997 16:07 9155203844 NICKELL PAGE 17

XENCO Laboratories

Certificate Of Quality Control for Batch - 17AUG1D15

EPA 1311/8260 TCLP Volatiles

Date Validated: Aug 11, 1997 11:15
Analyst: CE
Date Analyzed: Aug 8, 1997 10:48
Matrix: Solid
QA/QC Manager: Edward H. Yonemoto, Ph.D.

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Benzene	< 0.005	0.053	0.050	0.005	106.0	76-127	
Chlorobenzene	< 0.005	0.051	0.050	0.005	102.0	75-130	
1,1-Dichloroethene	< 0.005	0.050	0.050	0.005	100.0	61-145	
Toluene	< 0.005	0.048	0.050	0.005	96.0	76-125	
Trichloroethene	< 0.005	0.052	0.050	0.005	104.0	71-120	

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
I.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A01D15

EPA 1311/8260 TCLP Volatiles

Date Validated: Aug 11, 1997 11:15
Analyst: CE
Date Analyzed: Aug 8, 1997 17:23
Matrix: Solid
QA/QC Manager: Edward H. Yonemoto, Ph.D.

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 171750- 001	[A] Sample Result	[B] Matrix Spike Result	[C] Matrix Spike Duplicate Result	[D] Matrix Spike Amount	[E] Method Detection Limit	Matrix Limit Relative Difference	[F] QC	[G] QC	[H] QC	[I] Matrix Spike	
Parameter							Spike Relative Difference	Matrix Spike Recovery	M.S.D. Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	mg/L	mg/L	%	%	%	%	%	
Benzene	< 0.025	0.253	0.271	0.250	0.025	20.0	6.9	101.2	108.4	76-127	
Chlorobenzene	< 0.025	0.240	0.259	0.250	0.025	20.0	7.6	96.0	103.6	75-130	
1,1-Dichloroethene	< 0.025	0.217	0.223	0.250	0.025	20.0	2.7	86.8	89.2	61-145	
Toluene	< 0.025	0.242	0.257	0.250	0.025	20.0	6.0	96.8	102.8	76-125	
Trichloroethene	< 0.025	0.240	0.255	0.250	0.025	20.0	6.1	96.0	102.0	71-120	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

09/17/1997 16:07 9155203844 NICKELL: PAGE 19

XENCO Laboratories
11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio

August 13, 1997

Project Manager: Robbie Walker
Nickell Environmental
11246 S. Post Oak #306
Houston, TX 77035

Reference: **XENCO Report No.: 1-71722**
Project Name: Sump
Project ID: WEA-512-0000
Project Address: Hobbs, NM

Dear Robbie Walker:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-71722. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-71722 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie Yeremalo, Ph.D.
QA/QC Manager

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1000 Rio Brazos Road
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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-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK W/RICK 5/27/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator BJ Services
	5. Originating Site Hobbs facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Sonny's
3. Address of Facility Operator P.O. Box 388 Hobbs 88241	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 2708 West County Road	Hobbs New Mexico

9. Circle One:

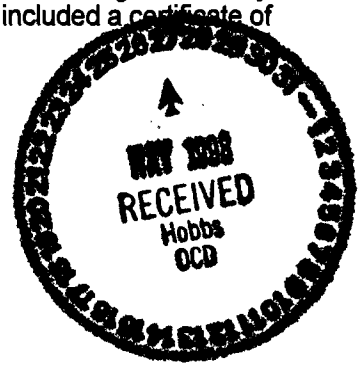
A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is for the BJ Services Hobbs facility. The material was generated by washing trucks. This material has been approved in the past. I have included a certificate of waste and a chain of custody.



Sent to Hobbs 6/1/98

05-004

Estimated Volume 225 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

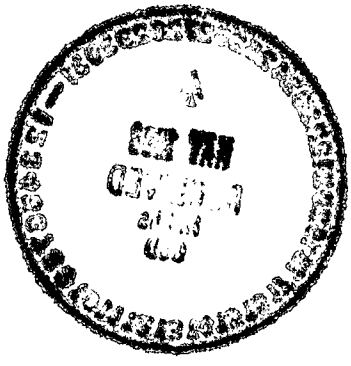
SIGNATURE: Billie Charo (Waste Management Facility Authorized Agent) TITLE: Envir. Compliance Manager DATE: 05/27/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Envir Engr DATE: 5/27/98

APPROVED BY: Martyn J. Parker TITLE: Env Geologist DATE: 6/1/98




MAY 1998
Received
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR B.J SERVICES

ADDRESS 2708 W. County Rd.

GENERATING SITE WASH BAY

COUNTY Lea STATE NM.

TYPE OF WASTE WASH BAY

ESTIMATED VOLUME 225 ± BBls

GENERATING PROCESS WASHING TRUCKS

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY SONNY'S

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Dan V. Miller
SIGNATURE

NAME DAN V. Miller
PRINTED

ADDRESS 2708 W County Rd

Hobbs NM

DATE 5-21-98

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CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/27/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD

Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP

TCLP METALS

LAB NUMBER	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		03/25/98	03/20/98	03/20/98	03/20/98	03/20/98	03/20/98	03/26/98	03/25/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3519-1	WASH BAY COMP.	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.211	5.014	21.70	2.011	4.929	5.211	0.0103	0.206
True Value QC		0.200	5.000	20.00	2.000	5.000	5.000	0.0100	0.200
% Recovery		106	100	109	101	99	104	103	103
Relative Standard Deviation		8.3	0.6	6.6	0.7	0.6	2.1	3.9	2.6
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter, Chemist

MAY 1998
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03/27/98
Date

H3519M.XLS

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ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/26/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD

Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		03/20/98	03/20/98	03/25/98	03/25/98
H3519-1	WASH BAY COMP	Not reactive	Not reactive	9.11	Nonflammable
Quality Control		NR	NR	7.03	NR
True Value QC		NR	NR	7.00	NR
% Accuracy		NR	NR	100	NR
Relative Percent Difference		NR	NR	0.4	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

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Chemist

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ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/24/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD
Lab Number: H3519-1
Sample ID: WASH BAY COMP.

Analysis Date: 03/23/98
Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3519-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.002	0.012	12	0.100
1,4-Dichlorobenzene	7.50	<0.020	<0.002	0.027	27	0.100
o-Cresol	200	<0.020	<0.002	0.035	35	0.100
m, p-Cresol	200	<0.020	<0.002	0.037	37	0.100
Hexachloroethane	3.00	<0.020	<0.002	0.023	23	0.100
Nitrobenzene	2.00	<0.020	<0.002	0.046	46	0.100
Hexachloro-1,3-butadiene	0.500	<0.020	<0.002	0.037	37	0.100
2,4,6-Trichlorophenol	2.00	<0.020	<0.002	0.053	53	0.100
2,4,5-Trichlorophenol	400	<0.020	<0.002	0.058	58	0.100
2,4-Dinitrotoluene	0.130	<0.020	<0.002	0.068	68	0.100
Hexachlorobenzene	0.130	<0.020	<0.002	0.060	60	0.100
Pentachlorophenol	100	<0.020	<0.002	0.062	62	0.100

	% RECOVERY
Fluorophenol	30
Phenol-d5	26
Nitrobenzene-d5	51
2-Fluorobiphenyl	57
2,4,6-Tribromophenol	57
Terphenyl-d14	78

METHODS: EPA SW 846-8270, 1311

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Burgess J. A. Cooke, Ph. D.

3/24/98
Date

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ANALYTICAL RESULTS FOR
BJ SERVICES
2708 N. WEST COUNTY ROAD
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/19/98
Reporting Date: 03/23/98
Project Owner: BJ SERVICES
Project Name: WASHBAYS (2) COMPOSITE
Project Location: HOBBS, NM YARD
Lab Number: H3519-1
Sample ID: WASH BAY COMP.

Analysis Date: 03/20/98
Sampling Date: 03/19/98
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.115	115	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.097	97	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.105	105	0.100
Chloroform	6.0	<0.005	<0.005	0.113	113	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.100	100	0.100
Benzene	0.5	<0.005	<0.005	0.114	114	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.102	102	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.119	119	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Chlorobenzene	100	<0.005	<0.005	0.119	119	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.116	116	0.100

	% RECOVERY
Dibromofluoromethane	92
Toluene-d8	92
Bromofluorobenzene	84

METHODS: EPA SW 846-8260, 1311

Burgess J.A. Cooke, Ph. D.

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

H3519

Page ____ of ____

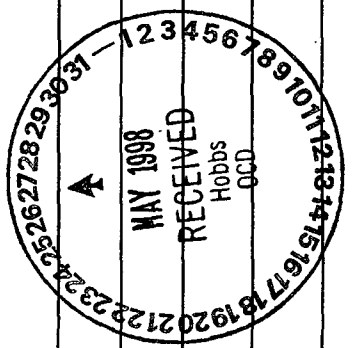
Company Name:	BJ SERVICES
Project Manager:	
Address:	2708 N WEST COUNTY ROAD
City:	HOBBS State: NM Zip:
Phone #:	505-392-5556
Fax #:	
Project #:	Project Owner: BJ SERVICES
Project Name:	WASH BAYS (2) COMPOSITE
Project Location:	HOBBS, N.M. - YARD

BILL TO PO #:

Company:	CRI
Attn:	KEN MORRIS
Address:	
City:	HOBBS
State:	NM Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

TCLP - COMPLETE



FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H3519-1	WASH BAY COMP		2		✓						✓		03/19/98	1:45

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date: 03/19/98 Time: 1:45	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
Relinquished By:	Date: 03/19/98 Time: 2:00	Received By: (Lab Staff)	Fax Result: ☐ Yes ☐ No
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool: ☒ Yes ☐ No Intact: ☒ Yes ☐ No	CHECKED BY: (Initials)

REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
DISTRICT I Hobbs
PO BOX 1980
Hobbs, NM 88241-1981
(505) 393-6161

Jennifer A. Salisbury
CABINET SECRETARY

RECEIVED
JUN 01 1998
Environmental Bureau
Oil Conservation Division

NMOCD INTER-OFFICE CORRESPONDENCE

TO: NMOCD I Hobbs NM Spill File

From: Wayne Price-Environmental Engineer

Date: May 22, 1998

Reference: Emergency Response Call from City of Hobbs, NM

Subject: Unidentified waste drums dumped on vacant lot on Dunham Street between Birch & Coleman.

Comments/Findings:

Received call from David Hooten at approximately 10:30 am concerning possible oil field waste being dumped at above location:

Chris Williams & Wayne Price Responded for NMOCD.

City of Hobbs Emergency Haz-Mat Response team, City Police, & NM State Police ERO (Jeff Boyers) on-site. Street blocked-off and a hot zone perimeter was already established. Some 17-20 35 gal. size drums were on site with some of the drum lids off and material spilled on ground.

Chris Williams began investigation of ownership of waste, Wayne Price began Waste identification & classification. W.Price suited-up to level C PPE & ran "NORM & VOC survey. Two drums were identified as possible "NORM" drums, readings were 100 uR/hr less background of 10, both of these drums were sealed. One drum had what appeared to be oil field tank bottoms. Ran VOC survey using PID = 65 ppm inside of drum. Breathing zone was "ND". Other material appeared to be sandblast sand.

Chris Williams' investigation and discussions with the landowner (Mr. Milberger) concluded the drums were kicked off of a trailer the night before by R&S Service Co. of Denver City, TX. Mr. Rodney Childress (owner) was contacted and instructed to come to the site with a clean-up crew that was trained to handle oil field solids. Mr. Childres had removed the drums in order to take possession of the trailer, in which the drums were stored on, for a bad debt.

Reports from Hobbs Police indicated Bosco Co. was the original oilfield contractor that was storing the drums at this site. The Owner of Bosco was reported to be a Mr. Cliff Strasner of Hobbs, NM. Police reports indicated he was in the Lea Co. Detention (jail) in Lovington, NM. The Generator of the waste (i.e. Oil Co. & lease location) has not yet been identified.

Gail Potter of Cardinal Labs came on-site and indicated the NMED had been investigating this case and had given him permission to sample the drums to determine if they were hazardous waste.

On-site meeting with Hobbs Emergency team/NMOCD/NMSP ERO decided it would be in the best interest for all parties & public safety that this waste be removed to a secure area. Art Hilliker CRI rep. was on site and indicated they would accept drums at CRI (permitted by NMOCD) and will isolate until they are classified.

Called NMED-HRMB SF discussed with Bentio Garcia, NMED agreed with plan if ok with NMSP ERO.

Approx. 12 noon clean-up crew arrived. NMOCD/City Hobbs advised R&S they are responsible for any applicable federal, state, and/or local laws pertaining to the dumping of this waste, clean-up and personal protection for its employees. R&S suited up in level C with dust mask.

NMOCD gave R&S and CRI permission to haul & accept this waste at the CRI-Halfway facility under emergency response conditions.

Site cleaned-up at 1:50 pm. NMOCD/CRI escorted R&S to CRI. Unloaded 19 drums and placed in isolation. Time 3pm. Rec called from M. Lesournack-NMED. Will send CC of report.

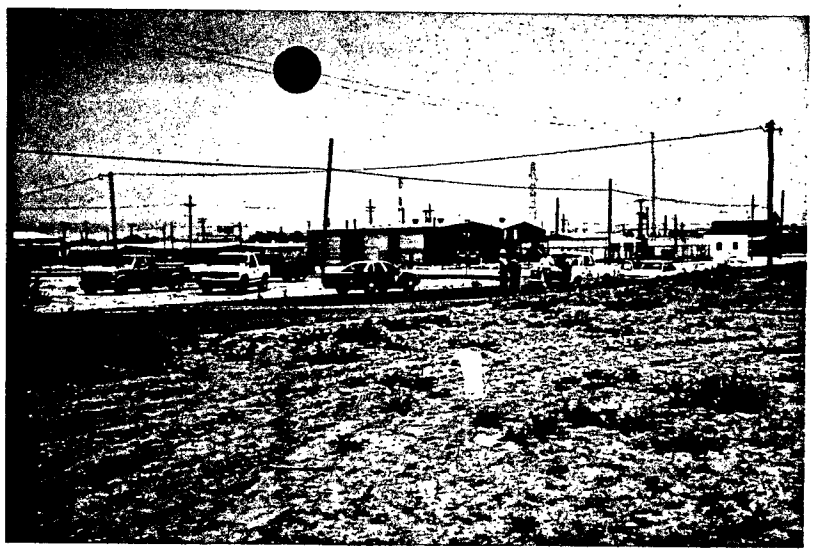
NMOCD & NM State Police notified Mr. Childless that he has violated state laws and the state of NM will advise him if his actions warrant him being issued a "Notice of Violation" or being cited under other applicable laws for the illegal disposal of solid waste.

NMOCD/ NMSP/ City of Hobbs has informed Mr. Childress that he will be responsible for certain cost in this clean-up.

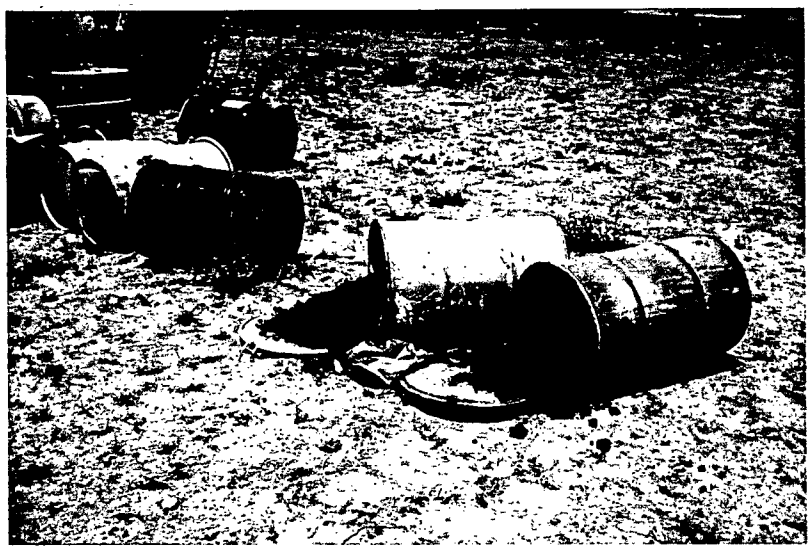
cc: Chris Williams-NMOCD District I Supervisor
NMSP- Hobbs Office- Rod Leal P.O 1086, Hobbs, NM
City of Hobbs-Emergency management-David Hooten
NMED-HRMB SF-Benito Garica
Martyne Kieling-NMOCD SF

attachments- photos, CRI manifest/bill.











NMOCD: ID#.806929 By: W Price
Date/Time: May 22, 1998 12-1 pm
Site/Co. Bosco & R&S
Location: Dunham ST(Birch & Coleman)
Subject: Illegal dumping of solid
waste Drums. Looking SW.

NMOCD: ID#.806929 By: W Price
Date/Time: May 22, 1998 12-1 pm
Site/Co. Bosco & R&S
Location: Dunham ST(Birch & Coleman)
Subject: Looking NE at ICS post.
illegal dumping of Solid Waste Drums.

NMOCD: ID#.806929 By: W Price
Date/Time: May 22, 1998 12-1 pm
Site/Co. Bosco & R&S
Location: Dunham ST(Birch & Coleman)
Subject: Illegal dumping of solid
waste Drums. Looking West.

NMOCD: ID#.806929 By: W Price
Date/Time: May 22, 1998 12-1 pm
Site/Co. Bosco & R&S
Location: Dunham ST(Birch & Coleman)
Subject: Illegal dumping of solid
waste Drums. Looking down & NW

NMOCD: ID#.806929 By: W Price
Date/Time: May 22, 1998 12-1 pm
Site/Co. Bosco & R&S
Location: Dunham ST(Birch & Coleman)
Subject: Illegal dumping of solid waste
Drums. Clean-up crew. Looking N.



CONTROLLED RECOVERY INC.

P. O. BOX 369 • HOBBS, NEW MEXICO 88241
(505) 393-1079

Bill To: R+S

Address: 112 N. Adams, Box 1141
Denver City, Tx 79323 806/592-3473

COMPANY/GENERATOR:: ?

LEASE NAME: ?

TRUCKING COMPANY: R+S Service Denver City | TIME: 2:45 AM (PM)

DATE: 5-22-98 | VEHICLE No.: | DRIVER No.:

TYPE OF MATERIAL

[ ] DRILLING FLUIDS [ ] TANK BOTTOMS [ ] EXEMPT FLUIDS
[ ] COMPLETION FLUIDS [ ] GAS PLANT WASTE [ ] C-117 No.: _____
[ ] CONTAMINATED SOIL [X] OTHER MATERIAL [ ] Pit No.: _____

DESCRIPTION

19 - 35 gal. drums w/ undeknown type of waste from vacant lot in city of Hobbs. OCD authorized storage of drums at CRI - halfway until tests ~~are~~ results are in and can determine where waste needs to be disposed of.

Emergency Response Action!!

VOLUME OF MATERIAL [ ] BBLS. _____ : [ ] YARD _____ : [ ] GALLONS _____

[ ] WASH OUT [ ] CALL OUT [ ] AFTER HOURS [ ] DEBRIS CHARGE

(X) storage

I, represent and warrant that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recover Act (RCRA) Subtitle C Regulations; and not mixed with non-exempt wastes.

AGENT: _____ - Transporter
(SIGNATURE)

CRI REPRESENTATIVE: Art Hillery
(SIGNATURE)

TANK NO. OFFICE USE:

OIL LEVELS	FEET	INCHES	GROSS BBLS.	DEDUCTIONS	
1ST GAUGE				NET BBLS.	
2ND GAUGE					
MEASURE RECEIVED					
BS& W	%				
FREE WATER		BBLS.			

03-98-500-4pt.-27001

Nº 027322

White - CRI Canary - CRI Accounting Pink - CRI Plant Gold - Transporter

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

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

RECEIVED
MAY 14 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Odessa facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Henderson Envir. & Malco
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8870 W Loop Odessa	Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Odessa facility. The material was generated by steam cleaning oil field tools. This material has been approved in the past. I have included a certificate of waste, a chain of custody, and a Texas Waste code.

MAY 1998
Received
Hobbs
OCD

05-002

Printed Hobbs 5-15-98

Estimated Volume 400 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

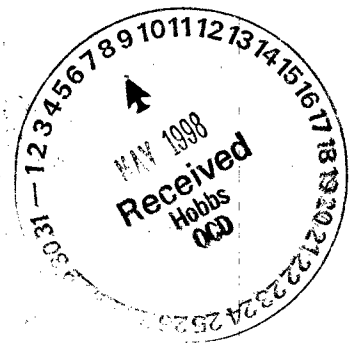
SIGNATURE: _____ TITLE: Envir. Compliance Manager DATE: 05/08/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENVR ENGR DATE: 5/12/98

APPROVED BY: _____ TITLE: Env Ecologist DATE: 5/14/98


MAY 1998
Received
Hobbs
OCD

Fishing & Rental Services

Weatherford Enterra

Weatherford Enterra U.S., Inc.
8870 West Loop 338 North
Odessa, Texas 79764

P.O. Drawer 112
Odessa, Texas 79760

915/550-9297
Telefax: 915/550-9323

May 6, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Weatherford requests approval to dispose of 400 bbl (16,800 gallons) of waste water and sludge generated by Weatherford . Weatherford has generated this waste from washing/steam cleaning oil field tools.

Weatherford generates this waste at:
8870 West Loop 338 North
Odessa, Texas 79764
TX ID #75327
EPA ID # TXD988025755

The transports of this waste will be Henderson Environmental of Lubbock, Texas and Malco Trucking of Odessa.

Henderson Environmental is at:
P.O. Box 2507
Lubbock, Tx 79408
(806) 744-6278
TX ID #83346
EPA ID # TXD000006411

Malco Trucking Inc. is at:
P.O. Box 14787
Odessa, Tx 79768
(915) 563-9220
TX ID #76665
EPA ID # TXD988042339

Please find attached copies of the certificate of waste, Texas Notice of Registration (NOR) analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me (915) 550-9297.

Sincerely,
Carolyn Burke
Carolyn Burke
Environmental

Attachments



CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR **WEATHERFORD**

ADDRESS **8870 WEST LOOP 338 ODESSA, TX. 79764**

GENERATING SITE **8870 WEST LOOP 338 ODESSA, TX 79764**

COUNTY **ECTOR** STATE **TEXAS**

TYPE OF WASTE **SLUDGE AND WASTE WATER**

ESTIMATED VOLUME **400 BBL. (16,800 GALLONS)**

GENERATING PROCESS **STEAM CLEANING OIL FIELD TOOLS**

REMARKS

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY **MALCO (915)563-9220, HENDERSON (806)744-6278**

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will by analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Carolyn Burke
SIGNATURE

NAME **CAROLYN BURKE**
PRINTED

ADDRESS **8870 WEST LOOP 338 N**

ODESSA, TX. 79764

DATE **5/6/98**

MAY 1998
Received
Hobbs
OCD

ANALYTICAL REPORT 1-71344

for

Nickell Environmental

Project Manager: Chris E. Stapp

Project Name: Sump Removal

Project Id: WEA 116-0000

June 20, 1997

XENCO Laboratories

HOUSTON - DALLAS - SAN ANTONIO

MAY 1998
Received
Hobbs
OCD

11381 Meadowglen Lane Suite L * Houston, Texas 77082-2647
Phone (281) 589-0692 Fax (281) 589-0695

XENCO Laboratories

11381 Meadowglen Suite L
Houston, Texas 77082-2647
(281) 589-0692 Fax: (281) 589-0695
Houston - Dallas - San Antonio

June 20, 1997

Project Manager: Chris E. Stapp
Nickell Environmental
11246 S. Post Oak #306
Houston, TX 77035

Reference: **XENCO Report No.: 1-71344**
Project Name: Sump Removal
Project ID: WEA 116-0000
Project Address: Odessa, TX WLP

Dear Chris E. Stapp:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with XENCO Chain of Custody Number 1-71344. All results being reported to you apply only to the samples analyzed, properly identified with a Laboratory ID number. This letter documents the official transmission of the contents of the report and validates the information contained within.

All the results for the quality control samples passed thorough examination. Also, all parameters for data reduction and validation checked satisfactorily. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, and completeness.

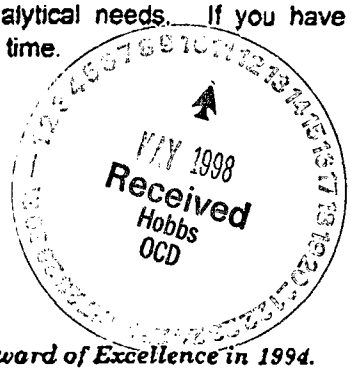
The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 3 years in our archives and after that time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 1-71344 will be filed for 60 days, and after that time they will be properly disposed of without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

XENCO Laboratories is accredited by the American Association for Laboratory Accreditation (A2LA) for technical competence in the field of Environmental Testing (Certificate No. 0343-01). In accordance with A2LA's guidelines, XENCO operates a Quality System that meets ISO/IEC Guide 25 requirements and is strictly implemented and enforced through our standard QA/QC procedures.

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Sincerely,

Eddie Contreras, Ph.D.
QA/QC Manager



XENCO Laboratories

11381 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab Batch # 171344

Contractor: Nickell Environmental Phone: (915) 520-4700

Address: 19 Barry Rd Midland TX 79706

Project Name: Sump removal Project Director: Chan Patel

Project Location: Odessa TX WLP Project Manager: Chris Stapp

Sampler Signature: Debbie Walden Project No.: WEA 116-0000

No. coolers this shipment: Contractor COC #

Carrier: FEDEX Quote #:

Airbill No.: 1477017975 P.O. No.:

	SAMPLE CHARACTERIZATION										Preservative		Chl Diss Ker Unknown Waste Oil PIT No: Tank No:	No of CONTAINERS Total	BTEX (8020/8020-8021)	TPH (418.1)	RCI	TCLP metals	TCLP VOA	TCLP SVOA			Please Hold	Turn-around • ASAP • 24 hrs 48 hrs (Standard)	LAB ID #
	Field ID	Date	Time	DEPTH	SOIL	WATER	COMP	GRAB	Container Size	Type P, G	Ice	Other	Sample Description											Remarks	
1	S1	6/11	2:15			X			320	G	X		Sump	1		X	X	X	X	X					1
2	S2	6/11	2:20			X			320	G	X		Sump	1		X	X	X	X	X					2
3																									3
4																									4
5																									5
6																									6
7																									7
8																									8
9																									9
10																									10

Received by: Debbie Walden Date: 6/11/97 Time: 2:15pm

Received For Laboratory by: [signature] Date: 6-12-97 Time: 10:00

Remarks

Pink (Contractor) Yellow & White (Lab)

* Pre-scheduling is recommended

Precision Analytical Services

XENCO Laboratories

ANALYTICAL CHAIN OF CUSTODY REPORT
CHRONOLOGY OF SAMPLES

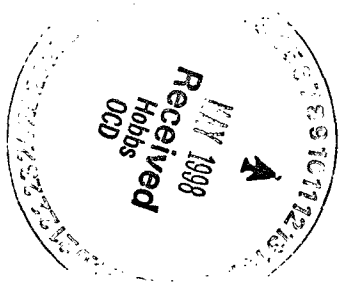
Nickell Environmental

Project ID: WEA 116-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Project Name: Sump Removal

XENCO COC#: 1-71344
Date Received in Lab: Jun 12, 1997 10:00 by RT
XENCO contact : Scott Sample/Edward Yonemoto

	Field ID	Lab. ID	Method Name	Method ID	Units	Turn Around	Date and Time: Sample Collected	Addition Requested	Extraction	Analysis
1	S1 Sump	171344-001	TPH	EPA 418.1	ppm	Standard	Jun 11, 1997 14:15		Jun 19, 1997 by JS	Jun 19, 1997 14:52 by JS
2			pH	SW846-9040	S.U.	Standard	Jun 11, 1997 14:15		Jun 12, 1997 by CY	Jun 12, 1997 16:20 by CY
3			Ignit/F.P.	SW-846 1010	deg. F	Standard	Jun 11, 1997 14:15		Jun 13, 1997 by CG	Jun 13, 1997 10:40 by CG
4			Cyanide RCI	SW846 7.3.3	mg/L	Standard	Jun 11, 1997 14:15		Jun 14, 1997 by CG	Jun 14, 1997 13:05 by CG
5			Sulfide RCI	SW846 7.3.4	mg/L	Standard	Jun 11, 1997 14:15		Jun 14, 1997 by CG	Jun 14, 1997 12:00 by CG
6			TCLP Metals	SW846-1311/60	mg/L	Standard	Jun 11, 1997 14:15		Jun 12, 1997 by JS	Jun 13, 1997 15:58 by SA
7			TCLP Mercury	EPA 1311/7470	mg/L	Standard	Jun 11, 1997 14:15		Jun 12, 1997 by JS	Jun 13, 1997 13:10 by EZ
8			TCLP Vol.	EPA 1311/8260	mg/L	Standard	Jun 11, 1997 14:15		Jun 19, 1997 by CE	Jun 19, 1997 16:44 by CE
9			TCLP S.V.	EPA 1311/8270	mg/L	Standard	Jun 11, 1997 14:15		Jun 17, 1997 by CY	Jun 17, 1997 16:30 by LC
10	S2 Sump	171344-002	TPH	EPA 418.1	ppm	Standard	Jun 11, 1997 14:20		Jun 19, 1997 by JS	Jun 19, 1997 14:54 by JS
11			pH	SW846-9040	S.U.	Standard	Jun 11, 1997 14:20		Jun 12, 1997 by CY	Jun 12, 1997 16:25 by CY
12			Ignit/F.P.	SW-846 1010	deg. F	Standard	Jun 11, 1997 14:20		Jun 13, 1997 by CG	Jun 13, 1997 10:50 by CG
13			Cyanide RCI	SW846 7.3.3	mg/L	Standard	Jun 11, 1997 14:20		Jun 14, 1997 by CG	Jun 14, 1997 13:10 by CG
14			Sulfide RCI	SW846 7.3.4	mg/L	Standard	Jun 11, 1997 14:20		Jun 14, 1997 by CG	Jun 14, 1997 12:05 by CG
15			TCLP Metals	SW846-1311/60	mg/L	Standard	Jun 11, 1997 14:20		Jun 12, 1997 by JS	Jun 13, 1997 16:05 by SA
16			TCLP Mercury	EPA 1311/7470	mg/L	Standard	Jun 11, 1997 14:20		Jun 12, 1997 by JS	Jun 13, 1997 13:11 by EZ
17			TCLP Vol.	EPA 1311/8260	mg/L	Standard	Jun 11, 1997 14:20		Jun 19, 1997 by CE	Jun 19, 1997 16:23 by CE
18			TCLP S.V.	EPA 1311/8270	mg/L	Standard	Jun 11, 1997 14:20		Jun 17, 1997 by CY	Jun 17, 1997 17:16 by LC



XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71344

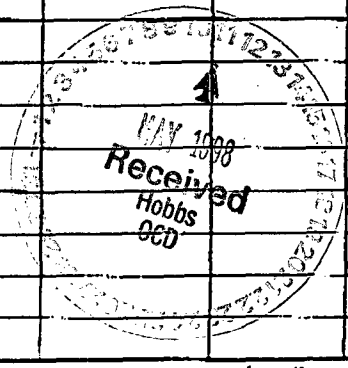
Nickell Environmental

Project Name: Sump Removal

Project ID: WEA 113-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Date Received in Lab: Jun 12, 1997 10:00 by RT
Date Report Faxed: Jun 20, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171344-001	171344-002				
	Field ID:	S1	S2				
	Depth:						
Ignit./F.P. Analyzed by EPA 1010		Date Analyzed - Analytical Results deg. F					
		Jun 13, 1997	Jun 13, 1997				
Ignitability, Pensky-Martens		> 180	> 180				
TCLP Metals Analyzed by EPA1311/6010		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 13, 1997	Jun 13, 1997				
Arsenic		< 0.6	< 0.6				
Barium		< 1.1	< 1.1				
Cadmium		< 0.11	< 0.11				
Chromium		< 0.6	< 0.6				
Lead		< 0.6	< 0.6				
Silver		< 0.09	< 0.09				
Selenium		< 0.4	< 0.4				
TCLP Mercury Analyzed by EPA 7470		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 13, 1997	Jun 13, 1997				
Mercury		< 0.020	< 0.020				
Cyanide RCI Analyzed by SW846 7.3.3		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 14, 1997	Jun 14, 1997				
Cyanide		< 0.5	< 0.5				
Sulfide RCI Analyzed by SW846 7.3.4		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 14, 1997	Jun 14, 1997				
Sulfide		< 0.5	< 0.5				
pH Analyzed by EPA 9040		Date Analyzed - Analytical Results S.U.					
		Jun 12, 1997	Jun 12, 1997				
pH, Electrometric		8.10	8.00				
TCLP S.V. Analyzed by EPA 8270		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 17, 1997	Jun 17, 1997				



This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71344

Nickell Environmental

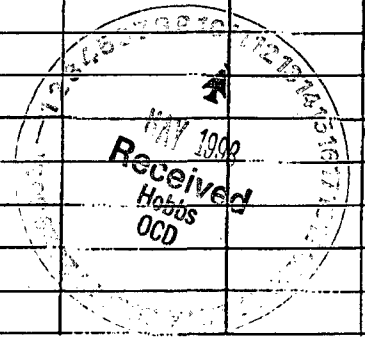
Project Name: Sump Removal

Project ID: WEA 116-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Date Received in Lab: Jun 12, 1997 10:00 by RT
Date Report Faxed: Jun 20, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:* / *Field ID:* / *Depth:*	171344-001 S1	171344-002 S2				
1,4-Dichlorobenzene		< 1.00	< 1.00				
2,4-Dinitrotoluene		< 0.10	< 0.10				
Hexachlorobenzene		< 0.08	< 0.08				
Hexachlorobutadiene		< 0.40	< 0.40				
Hexachloroethane		< 1.00	< 1.00				
2-Methylphenol		< 10.00	< 10.00				
3-Methylphenol		< 10.00	< 10.00				
4-Methylphenol		< 10.00	< 10.00				
Nitrobenzene		< 1.00	< 1.00				
Pentachlorophenol		< 10.00	< 10.00				
Pyridine		< 1.00	< 1.00				
2,4,5-Trichlorophenol		< 10.00	< 10.00				
2,4,6-Trichlorophenol		< 1.00	< 1.00				

TCLP Vol. Analyzed by EPA1311/8260	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
	Jun 19, 1997	Jun 19, 1997				
Benzene	< 0.1	< 0.1				
2-Butanone	< 8.0	< 8.0				
Carbon Tetrachloride	< 0.1	< 0.1				
Chloroform	< 0.5	< 0.5				
1,2-Dichloroethane	< 0.1	< 0.1				
1,1-Dichloroethene	< 0.1	< 0.1				
Tetrachloroethene	< 0.1	< 0.1				
Trichloroethene	< 0.1	< 0.1				
Vinyl chloride	< 0.05	< 0.05				
Chlorobenzene	< 4.0	< 4.0				



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Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71344

Nickell Environmental

Project Name: Sump Removal

Project ID: WEA 116-0000
Project Manager: Chris E. Stapp
Project Location: Odessa, TX WLP

Date Received in Lab: Jun 12, 1997 10:00 by RT
Date Report Faxed: Jun 20, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171344-001	171344-002				
	Field ID:	S1	S2				
	Depth:						
TPH Analyzed by EPA 418.1		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jun 19, 1997	Jun 19, 1997				
Total Petroleum Hydrocarbons		11300	18400				



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Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

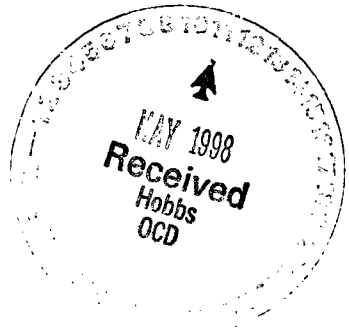
Certificate Of Quality Control for Batch - 17A11A42

SW- 846 1010 Ignitability, Pensky- Martens

Date Validated: Jun 16, 1997 16:45
Date Analyzed: Jun 13, 1997 10:20
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171332- 001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	deg. F	deg. F	deg. F	%	%	
Ignitability, Pensky-Martens	>180	>180	75-180	0.0	15.0	



Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A18C40

SW846- 1311/6010 TCLP Metals

Date Validated: Jun 14, 1997 09:30
Date Analyzed: Jun 13, 1997 14:34
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: SA
Matrix: Solid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Arsenic	< 0.22	1.97	2.22	0.22	88.7	65-135	
Barium	< 0.11	1.22	1.11	0.11	109.9	65-135	
Cadmium	< 0.056	0.387	0.444	0.056	87.2	65-135	
Chromium	< 0.22	0.94	1.11	0.22	84.7	65-135	
Lead	< 0.22	1.92	2.22	0.22	86.5	65-135	
Selenium	< 0.22	2.15	2.22	0.22	96.8	65-135	
Silver	< 0.089	0.654	0.888	0.089	73.6	65-135	

MAY 1998
Received
Hobbs
OCD

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

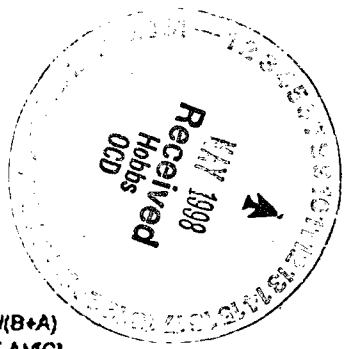
Certificate Of Quality Control for Batch : 17A18C40

SW846- 1311/6010 TCLP Metals

Date Validated: Jun 14, 1997 09:30
Date Analyzed: Jun 13, 1997 15:02
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: SA
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 171354- 009	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC LIMITS	[E]	[F] Matrix Spike Result	[G] Matrix Spike Amount	[H] QC LIMITS	[I]	[G]
Parameter	mg/L	mg/L	mg/L	Relative Difference %	Relative Difference %	mg/L	mg/L	Matrix Spike Recovery %	Recovery Range %	Qualifier
Arsenic	< 0.22	< 0.22	0.22	N.C	25.0	2.1	2.2	93.2	65-135	
Barium	1.79	1.82	0.11	1.7	25.0	2.8	1.1	86.5	65-135	
Cadmium	< 0.056	< 0.056	0.056	N.C	25.0	0.38	0.44	86.5	65-135	
Chromium	< 0.22	< 0.22	0.22	N.C	25.0	1.0	1.1	85.6	65-135	
Lead	< 0.22	< 0.22	0.22	N.C	25.0	2.0	2.2	89.2	65-135	
Selenium	< 0.22	< 0.22	0.22	N.C	25.0	2.2	2.2	100.9	65-135	
Silver	< 0.089	< 0.089	0.089	N.C	25.0	0.73	0.89	82.4	65-135	



Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch = 17A05B55

EPA 1311/7470 TCLP Mercury

Date Validated: Jun 14, 1997 09:45
Date Analyzed: Jun 13, 1997 12:59
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: EZ
Matrix: Solid

	BLANK SPIKE ANALYSIS						
	[A]	[B]	[C]	[D]	[E]	[F]	[G]
					QC	LIMITS	
Parameter	Blank Result	Blank Spike Result	Blank Spike Amount	Method Detection Limit	Blank Spike Recovery	Recovery Range	Qualifier
	mg/L	mg/L	mg/L	mg/L	%	%	
Mercury	< 0.0010	0.0018	0.0025	0.0010	72.0	65-135	

JUN 1998 Received Hobbs OCD

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

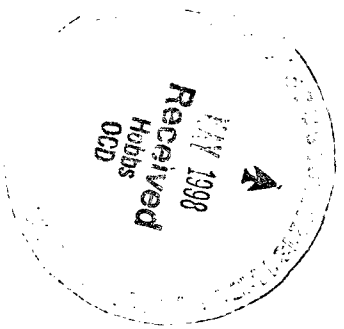
Certificate Of Quality Control for Batch : 17A05B55

EPA 1311/7470 TCLP Mercury

Date Validated: Jun 14, 1997 09:45
Date Analyzed: Jun 13, 1997 13:01
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: EZ
Matrix: Solid

	MATRIX DUPLICATE ANALYSIS					MATRIX SPIKE ANALYSIS				
Q.C. Sample ID 171354- 013	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[G]
	Sample	Duplicate	Method	QC LIMITS		Matrix Spike	Matrix	QC LIMITS		
	Result	Result	Detection Limit	Relative Difference	Relative Difference	Result	Spike Amount	Matrix Spike Recovery	Recovery Range	Qualifier
Parameter	mg/L	mg/L	mg/L	%	%	mg/L	mg/L	%	%	
Mercury	< 0.0010	< 0.0010	0.0010	N.C	25.0	0.0025	0.0025	100.0	65-135	



Relative Difference [D] = 200*(B-A)/(B+A)
Matrix Spike Recovery [H] = 100*(F-A)/[G]
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

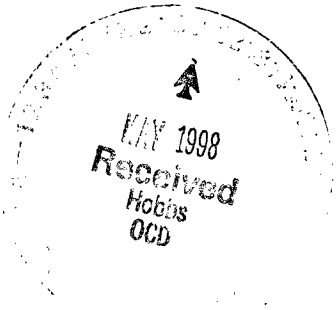
Certificate Of Quality Control for Batch 17A12B11

SW846 7.3.3 Reactive Cyanide

Date Validated: Jun 16, 1997 16:30
Date Analyzed: Jun 14, 1997 12:40
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Liquid

	BLANK SPIKE ANALYSIS						
Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Cyanide	< 0.05	0.09	0.10	0.05	94.7	70-125	



Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch 97A12B10

SW846 7.3.4 Reactive Sulfide

Date Validated: Jun 16, 1997 16:35
Date Analyzed: Jun 14, 1997 11:40
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CG
Matrix: Liquid

BLANK SPIKE ANALYSIS

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Amount mg/L	[D] Method Detection Limit mg/L	[E] QC Blank Spike Recovery %	[F] LIMITS Recovery Range %	[G] Qualifier
Sulfide	< 0.50	6.48	6.80	0.50	95.3	70-125	

MAY 1998
Received
Hobbs
OCD

Blank Spike Recovery [E] = 100*(B-A)/(C)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch 17A13A82

EPA 150.1 pH, Electrometric

Date Validated: Jun 12, 1997 17:55
Date Analyzed: Jun 12, 1997 15:50
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CY
Matrix: Liquid

	MATRIX DUPLICATE ANALYSIS					
Q.C. Sample ID 171341-001	[A] Sample Result	[B] Duplicate Result	[C] Method Detection Limit	[D] QC Relative Difference	[E] LIMITS Relative Difference	[F] Qualifier
Parameter	S.U.	S.U.	S.U.	%	%	
pH, Electrometric	7.196	7.215	0 - 14	0.3	3.0	

MAY 1998
Received
Hobbs
OCD

Relative Difference [D] = 200*(B-A)/(B+A)
N.C. = Not calculated, data below detection limit
N.D. = Below detection limit
All results are based on MDL and validated for QC purposes only

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch # 17A84C20

EPA 1311/8270 TCLP Semi-volatiles

Date Validated: Jun 18, 1997 14:01
Date Analyzed: Jun 17, 1997 14:59
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: LC
Matrix: Liquid

BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY

Parameter	[A] Blank Result mg/L	[B] Blank Spike Result mg/L	[C] Blank Spike Duplicate Result mg/L	[D] Blank Spike Amount mg/L	[E] Method Detection Limit mg/L	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifie
Acenaphthene	< 0.0020	0.0822	0.0886	0.1000	0.0020	31.0	7.5	82.2	88.6	46-118	
4-Chloro-3-Methylphenol	< 0.0010	0.0694	0.0630	0.1000	0.0010	42.0	9.7	69.4	63.0	23-97	
2-Chlorophenol	< 0.0040	0.0868	0.0900	0.1000	0.0040	40.0	3.6	86.8	90.0	27-123	
1,4-Dichlorobenzene	< 0.0040	0.0834	0.0980	0.1000	0.0040	28.0	14.0	83.4	96.0	36-97	
2,4-Dinitrotoluene	< 0.0010	0.0878	0.0946	0.1000	0.0010	38.0	7.5	87.8	94.6	24-96	
N-Nitroso-di-n-propylamine	< 0.0080	0.1010	0.1156	0.1000	0.0080	38.0	13.5	101.0	115.6	41-116	
4-Nitrophenol	< 0.0080	0.0372	0.0336	0.1000	0.0080	50.0	10.2	37.2	33.6	10-80	
Pentachlorophenol	< 0.0010	0.0664	0.0674	0.1000	0.0010	50.0	1.5	66.4	67.4	9-103	
Phenol	< 0.0040	0.0518	0.0466	0.1000	0.0040	42.0	10.6	51.8	46.6	12-89	
Pyrene	< 0.0040	0.0946	0.1070	0.1000	0.0040	31.0	12.3	94.6	107.0	26-127	
1,2,4-Trichlorobenzene	< 0.0040	0.0764	0.0842	0.1000	0.0040	28.0	9.7	76.4	84.2	39-98	

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A01045

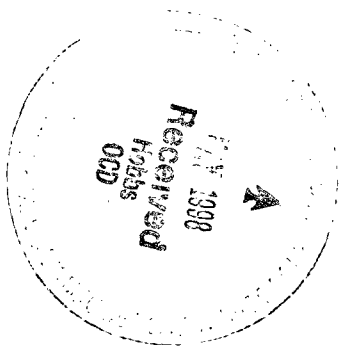
SW846- 8260 Volatile Organic Analysis

Date Validated: Jun 20, 1997 12:45
Date Analyzed: Jun 19, 1997 17:42
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: CE
Matrix: Liquid

MATRIX SPIKE / MATRIX SPIKE DUPLICATE AND RECOVERY

Q.C. Sample ID 171402- 004 / Parameter	[A] Sample Result mg/L	[B] Matrix Spike Result mg/L	[C] Matrix Spike Duplicate Result mg/L	[D] Matrix Spike Amount mg/L	[E] Method Detection Limit mg/L	Matrix Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Matrix Spike Recovery %	[H] QC M.S.D. Recovery %	[I] Matrix Spike Recovery Range %	[J] Qualifi
Benzene	< 0.0010	0.0492	0.0492	0.0500	0.0010	11.0	0.0	98.4	98.4	76-127	
Chlorobenzene	< 0.0010	0.0492	0.0496	0.0500	0.0010	13.0	0.8	98.4	99.2	75-130	
1,1-Dichloroethene	< 0.0040	0.0421	0.0422	0.0500	0.0040	14.0	0.2	84.2	84.4	61-145	
Toluene	< 0.0010	0.0494	0.0479	0.0500	0.0010	13.0	3.1	98.8	95.8	76-125	
Trichloroethene	< 0.0030	0.0475	0.0480	0.0500	0.0030	14.0	1.0	95.0	96.0	71-120	



Spike Relative Difference [F] = 200*(B-C)/(B+C)
Matrix Spike Recovery [G] = 100*(B-A)/[D]
M.S.D. = Matrix Spike Duplicate
M.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

Certificate Of Quality Control for Batch : 17A07E24

EPA 418.1 Total Petroleum Hydrocarbons

Date Validated: Jun 19, 1997 16:00
Date Analyzed: Jun 19, 1997 14:48
QA/QC Manager: Edward H. Yonemoto, Ph.D.

Analyst: JS
Matrix: Liquid

	BLANK SPIKE / BLANK SPIKE DUPLICATE AND RECOVERY										
Parameter	[A] Blank Result ppm	[B] Blank Spike Result ppm	[C] Blank Spike Duplicate Result ppm	[D] Blank Spike Amount ppm	[E] Method Detection Limit ppm	Blank Limit Relative Difference %	[F] QC Spike Relative Difference %	[G] QC Blank Spike Recovery %	[H] QC B.S.D. Recovery %	[I] Blank Spike Recovery Range %	[J] Qualifi
Total Petroleum Hydrocarbons	< 0.51	4.34	4.40	4.71	0.51	25.0	1.4	92.1	93.4	70-125	

Received
MAY 1998
Hobbs
OCD

Spike Relative Difference [F] = 200*(B-C)/(B+C)
Blank Spike Recovery [G] = 100*(B-A)/[D]
B.S.D. = Blank Spike Duplicate
B.S.D. Recovery [H] = 100*(C-A)/[D]
N.D. = Below detection limit or not detected
All results are based on MDL and validated for QC purposes

Edward H. Yonemoto, Ph.D.
QA/QC Manager

TOTAL F.18

75327 Weatherford U.S., Inc.

Solid Waste Registration Number: 75327 EPA Id: TXD988025755

Company Name: Weatherford U.S., Inc.
Site Name: Odessa-Tool
Site Location: 8870 W Loop 338 N, Odessa, TX
Contact: ~~Johnson, Mike~~ ?

Region: 7
County: 68 Ector
Title: Location Manager

Initial Registration Date: 05/06/1991
Last Amendment Date: 09/18/1995
Last Date NOR Computer update: 06/19/1996
Phone: 915-550-9297

Mailing Address: P. O. Drawer-112
Odessa, TX 79760-0112

Site Street Address: 8870 W Loop 338 N
Odessa, TX 79764-

Registration Status: Active
Registration Type: Generator
Generator Type: Non-industrial and/or municipal

Reporting Method: STEERS
Hazardous Waste Generation Status: Small Quantity Generator

Primary SIC Code: 1389 Oil & Gas Field Services, Not Elsewhere Found
Handler Status:

Operator Information
Name:
Phone:
Address:

Owner Information
Name: Weatherford U.S., Inc.
Phone:
Address: P.O. Box 27608
Suite 1000
Houston, TX. 77227-7608

As of 09/18/1995 - the next unassigned sequence number for WASTES is 6032 and
the next unassigned sequence number for UNITS is 001.



TX WATER COMM 02/20/97 12:58 003

75327 Weatherford U.S., Inc.

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

00103071 1 Active 01/26/94 Off No

Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

---

00116951 1 Active 01/26/94 Off No

Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricant, dirt, paint, scale, and corrosion products/August 1993.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

---

60C1203H H Active 08/05/94 Off No No

Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D019 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash

6002202H H Active 08/05/94 Off No

Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy arcmatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1 Active 08/05/94 Off No

Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



TX WATER COMM 02/20/97 12:58

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059032 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063101 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance. to be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

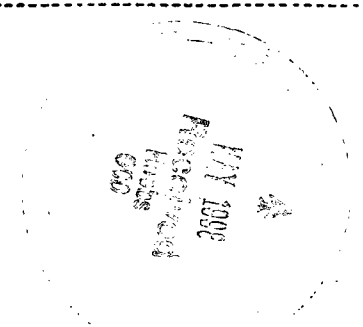
60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

5009209H H Active 08/05/94 Off No

Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.

Form Code: 209 Organic paint, ink, lacquer, or varnish

EPA Hazardous Waste Numbers: D001

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

* Source Codes: A21 Painting

* Measurement Points: 1 Before mixing

* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60102091 1 Active 08/05/94 Off No

Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipmentl - general maintenance.

Form Code: 209 Organic paint, ink, lacquer, or varnish

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No

Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.

Form Code: 409 Other non-halogenated organic solids

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60122111H H Active 08/05/94 Off No

Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and equiment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.

Form Code: 211 Paint thinner or petroleum distillates

EPA Hazardous Waste Numbers: D001

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

* Source Codes: A21 Painting A19 Other cleaning and degreasing

* Measurement Points: 1 Before mixing

* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

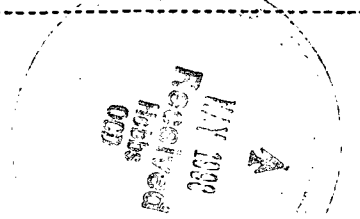
60133191 1 Active 08/05/94 Off No

Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.

Form Code: 319 Other waste inorganic solids

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						

60143091 H Active 08/05/94 Off No
Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.
Form Code: 309 Batteries or battery parts, casings, cores
EPA Hazardous Waste Numbers: D002 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A55 Filter/Battery replacement
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

60153101 1 Active 08/05/94 Off No
Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.
Form Code: 310 Spent solid filters or adsorbents (inorganic)
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60163081 1 Active 08/05/94 Off No
Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60174061 1 Active 08/05/94 Off No
Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60182961 1 Active 08/05/94 Off No
Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60196951 1 Active 09/18/95 Off No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.
Form Code: 595 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge

TX WATER COMM
02/20/97 12:58

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60203071 1 Active 08/05/94 Off No

Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No

Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 08/05/94 Off No

Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No

Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No

Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60253101I H Active 08/05/94 Off No
Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1
Form Code: 310 Spent solid filters or adsorbents (inorganic)
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes:
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Paint filters/hazardous

60264891 1 Active 08/05/94 Off No
Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60283191 1 Active 12/28/94 Off No
Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

6029209H H Active 09/18/95 Off No No
Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60304891 1 Active 09/18/95 Off No
Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Wate includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
6031109H H		Active	09/18/95	Off	No	No

Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A03 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

990001	H	Active		Off	No

Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:

* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

00196951	1	Inactive	09/18/95	NA	No	No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00234891	1	Inactive	09/18/95	NA	No	No

Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

TX WATER COMM
02/20/97 13:00

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

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

Form C-13
Originated 8/8/

Submit Origi
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to appropri
District Off

RECEIVED
MAY 14 1998
Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Star Tool 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Sonny's
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 1000 W County Rd Hobbs	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Star Tools Hobbs facility. The material was generated by steam cleaning / washing oil field tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

MAY 1998
Received
Hobbs
OCD

Printed in Hobbs 5-15-98

05-001

Estimated Volume 200 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: Environmental Compliance Manager DATE: 05/07/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Env Engr DATE: 5/12/98

APPROVED BY: _____ TITLE: Env. Geologist DATE: 5/14/98

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Star Tool Company

ADRESS 1000 West County Road, Hobbs, NM 88240

GENERATING SITE 1000 West County Road, Hobbs, NM 88240

COUNTY Lea STATE NM

TYPE OF WASTE Sludge and waste water

ESTINATED VOLUME 200 bbl. (8400 gallons)

GENERATING PROCESS Steam cleaning/washing oil field tools.

REMARKS

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Sonny's Oil Field Service

As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT Robbie Walker
SIGNATURE

NAME Robbie O. Walker
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE May 1, 1998

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas. 79701 ○ Telephone (915) 522-2133 ○ Telefax (915) 522-2180

May, 1 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 200bbl (8400 gallons) of waste water and sludge generated by Star Tool Company.. Star Tool has generated this waste from washing/steam cleaning oil field tools.

Star Tool generates this waste at:
1000 W. County Rd.
Hobbs, NM (Lea Cnty.) 88240
(505)397-4988

The transporter of this waste will be Sonny's Oil Field Service. Sonny's is at:

816 N.W. County Rd.
Hobbs, NM 88240
(505)393-4521

Please find attached copies of the certificate of waste, analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician

cc: Terry James, Llano-Permian Environmental
File: 104-125

Attachments

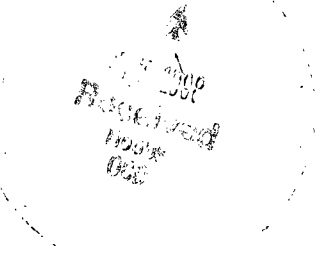
LABORATORY DATA REPORT CHECKLIST

✓	Name of Laboratory.
✓	Name of person responsible for analysis.
✓	Data (units) Sample description (solid, liquid, etc.) Field Code Sampling Date Receiving Date
✓	Cross reference to laboratory analysis record.
✓	Parameter being analyzed.
✓	Result of analysis with units specified.
✓	Analytical method used.
✓	Minimum detection value of analytical method used. (statement "ND" not acceptable)
✓	Quality control results (as appropriate). Precision (deviation between sample and duplicate) Extraction Accuracy (recovery of spike) Instrument Accuracy (documentation of calibration)
✓	Signature of person responsible for analysis.



FIELD NOTES

Sample identification number:	WW-1
Purpose of sample:	Disposal of wash water
Analysis method to be used:	TCLP S.V. EPA 1311/8270 TCLP Vol. EPA 1311/8260 TCLP Metals - EPA -1311/6010 TCLP Mercury - EPA 1311/7470 IGNIT/F.P. - SW-846 1010 pH - SW-846 2.1.2 Cyanide RCI - SW 846 2.1.3 Sulfide RCI - SW 846 2.1.3 TPH GRO EPA 8015B
Who collected the sample:	Terry James
How the sample was collected:	Sampling Bailer
Sample quantity:	Six quart-size containers
Sample preservation, if any:	Ice
Date and time of sample:	April 28, 1997, 3:00 PM
Where the sample was collected:	From 500 barrel tank
Chain-of-Custody:	Attached



TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Prep Date: 04/29/97
Analysis Date: 04/29/97
Sampling Date: 04/25/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assessment & Sampling

TA#	Field Code	REACTIVITY	SULPIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	FLASHPOINT (^{o}F)
	EPA LIMIT =	---	500	250	---	<2 >12.5	>140 ^{o}F
T72496	WW-1	Non-reactive	<10	<2.5	Non-corrosive	7.7	>150
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	--	---	---	---
% Instrument Accuracy		---	---	--	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 1010.
CHEMIST: JT

Director, Dr. Blair Leftwich

5/1/97
DATE

May-06-97 10:35A P.05

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Nickell Environmental
Attention Terry James
4113 W. Industrial.
Midland TX 79703

Date: May 05, 1997
Date Rec: 4/29/97
Project: STA.501-1
Proj Name: Facility Assessment & Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9704000522
Sampling Date: 4/25/97
Sample Condition: Intact and Cool
Sample Received By: JH

TA#	Field Code	MATRIX	GRO* (mg/L)
T72496	WW-1	Water	11.3
QC			1
RPD			10
% Extraction Accuracy:			81
% Instrument Accuracy:			98

Reporting Limit: 0.1

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
8015G	EPA 5030	4/30/97	EPA 8015B	4/30/97	DH	1	1

* Gasoline Range Organics

Director, Dr. Blair Leftwich

5-5-97
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobb, NM

Extraction Date: 04/30/97
Analysis Date: 04/30/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T72496 WW-1	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.112	2	81	112
1,1-Dichloroethene	0.7	0.05	ND	0.099	1	101	99
Methyl Ethyl Ketone	200.0	0.05	1.71	0.114	1	94	114
Chloroform	6.0	0.05	ND	0.097	0	103	97
1,2-Dichloroethane	0.5	0.05	ND	0.097	1	94	97
Benzene	0.5	0.05	ND	0.100	2	101	100
Carbon Tetrachloride	0.5	0.05	ND	0.099	1	112	99
Trichloroethene	0.5	0.05	ND	0.101	2	106	101
Tetrachloroethene	0.7	0.05	ND	0.102	2	106	102
Chlorobenzene	100.0	0.05	ND	0.103	1	103	103
1,4-Dichlorobenzene	7.5	0.05	ND	0.105	0	98	105

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	93
4-Bromofluorobenzene	92

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RP

Director, Dr. Blair Leftwich

5/1/97
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#17 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Extraction Date: 04/30/97
Analysis Date: 04/30/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmt & Sampling

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T72496 WW-1	QC	RPD	%EA	%IA
Pyridine	5.0	0.5	ND	89	19	13	111
1,4-Dichlorobenzene	7.5	0.5	ND	84	3	43	105
o-Cresol	200.0	0.5	ND	77	9	48	96
m,p-Cresol	200.0	0.5	ND	75	8	45	94
Total Cresol	200.0	0.5	ND	---	---	---	---
Hexachloroethane	3.0	0.5	ND	79	2	45	99
Nitrobenzene	2.0	0.5	ND	74	4	51	93
Hexachlorobutadiene	0.5	0.1	ND	80	5	49	100
2,4,6-Trichlorophenol	2.0	0.5	ND	78	3	48	98
2,4,5-Trichlorophenol	400.0	0.5	ND	81	4	56	101
2,4-Dinitrotoluene	0.13	0.1	ND	82	3	58	103
2,4-D	10.0	0.5	ND	85	8	46	106
Hexachlorobenzene	0.13	0.1	ND	85	3	86	106
2,4,5-TP	1.0	0.5	ND	86	6	45	108
Pentachlorophenol	100.0	0.5	ND	80	4	72	100
Chlordane	0.03	0.02	ND	0.0515	2	89	103
Toxaphene	0.5	0.5	ND	1.98	39	65	99
Lindane	0.4	0.02	ND	0.025	0	84	100
Heptachlor	0.008	0.002	ND	0.025	0	78	100
Heptachlor epoxide	0.008	0.002	ND	0.025	0	84	100
Total Heptachlor	0.008	0.02	ND	---	---	---	---
Endrin	0.02	0.02	ND	0.050	2	81	100
Methoxychlor	10.0	2.0	ND	0.25	0	92	100
Surrogates	**% RECOVERY**						
2-Fluorophenol	84						
Phenol-d6	88						
Nitrobenzene-d5	92						
2-Fluorobiphenyl	98						
2,4,6-Tribromophenol	108						
Terphenyl-d14	118						

*NOTE: Elevated reporting limits due to sample matrix interference.

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/CC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5/1/97
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Extraction Date: 04/29/97
Analysis Date: 05/01/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T72496	WW-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.05	<0.20	<0.01
QC	Quality Control	5.0	5.0	5.0	5.1	4.9	1.02	5.0	0.0048
Reporting Limit		0.10	0.10	0.02	0.05	0.10	0.05	0.20	0.01
RPD		1	2	3	2	5	25	3	1
% Extraction Accuracy		95	98	98	77	93	90	101	100
% Instrument Accuracy		99	101	100	101	97	102	100	96

Received Hobbs, NM MAY 1 1997

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: RC
METHODS: EPA SW 846-1311, 6010, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.15 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

5/1/97
Date

May-06-97 10:39A P.06

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Terry James
Phone #: 915/520-4700
FAX #: 915/520-3844

Company Name & Address: Nickels Env Corp, #19 Bois Rd, Midland, TX 79706

Project #: STA. 501-1
Project Name: Facility Assessment & Sampling

Project Location: Hobbs, New Mexico
Sampler Signature: Terry James

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Solid	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	BTEX, MTBE	TPH 8015	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270
72496	WW-1	6	40ml	✓							✓		4/25	5:00	X	X		X	X	X	X		
97	Field-1	2	40					X			X		4/25	2:00	X	X		X	X	X	X		

Turn around # of days
Fax ASAP
Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Terry James	4/28/97	5:00	Helen Shelton	4/28/97	5:00PM
Helen Shelton	4/28/97	8:30PM			
			Received at Laboratory by: J.O. Tindell	4/29/97	9:20

REMARKS: TURN A round ASAP on WW-1
Normal turnaround on Field-1

Shipped Greyhound CT

1,0,2 (F) 5-1-97

8 samples - NS

Received Hobbs Lab 4/29/97

MAY-06-97 11:01A P.01

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

6/10/97

TO: Chris Stapp, Nickell Environmental
FROM: Blair Leftwich, Director BL

RE: RCI on Sludge Sample T73986, Tank, Sta.501-1, Hobbs, NM, sampling date 5/19/97

The sample was originally screened for reactive sulfide and cyanide utilizing Drager tubes. The sample showed 640 ppm sulfide and 240 ppm cyanide. Because there are possible interferences for cyanide and sulfide utilizing Drager tubes and because there were no known sources, the sample was analyzed for cyanide and sulfide utilizing EPA methods 4500-S2-E and EPA 335.2. These methods have less interferences than previous methods, and resulted in sulfides of <8.0 ppm and cyanides of 0.8 ppm.

Received
Hobbs
OCD

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

6/10/97

TO: Chris Stapp, Nickell Environmental
FROM: Blair Leftwich, Director BL

RE: RCI on Sludge Sample T73986, Tank, Sta.501-1, Hobbs, NM, sampling date 5/19/97

The sample was originally screened for reactive sulfide and cyanide utilizing Drager tubes. The sample showed 640 ppm sulfide and 240 ppm cyanide. Because there are possible interferences for cyanide and sulfide utilizing Drager tubes and because there were no known sources, the sample was analyzed for cyanide and sulfide utilizing EPA methods 4500-S2-E and EPA 335.2. These methods have less interferences than previous methods, and resulted in sulfides of <8.0 ppm and cyanides of 0.8 ppm.

Received
Hobbs
000

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

6/10/97

TO: Chris Stapp, Nickell Environmental
FROM: Blair Leftwich, Director BL

RE: TCLP analysis of sludges bearing free oil

Sludges containing free oil are extracted for TCLP constituents by mixing the sludge and oil into a homogeneous mixture prior to removing a sample for TCLP extraction. The mixture is extracted as a whole, without separation, consequently, the extract contains contributions from both the oil and the sludge.

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

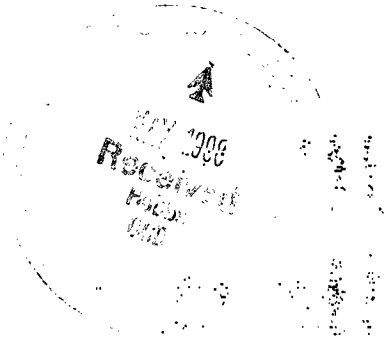
ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Extraction Date: 05/27/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

SAMPLE NO.	FIELD CODE	DRO* (mg/kg)
T73985	Sump	58,000
T73986	Tank	5,400
QC	Quality Control	236
Reporting Limit		50

* DRO - Diesel Range Organics



METHODS: EPA SW 5030, 8015B.
CHEMIST: DH

Director, Dr. Blair Leftwich

5-29-97
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Extraction Date: 05/22/97
Analysis Date: 05/23/97
Sampling Date: 05/19/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt. & Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T73985 Sump	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.083	1	85	83
1,1-Dichloroethene	0.7	0.05	ND	0.092	1	110	92
Methyl Ethyl Ketone	200.0	0.5	ND	0.102	13	110	102
Chloroform	6.0	0.05	ND	0.093	4	99	93
1,2-Dichloroethane	0.5	0.05	ND	0.096	5	94	96
Benzene	0.5	0.05	ND	0.097	5	99	97
Carbon Tetrachloride	0.5	0.05	ND	0.094	4	103	94
Trichloroethene	0.5	0.05	ND	0.094	6	102	94
Tetrachloroethene	0.7	0.05	ND	0.094	6	105	94
Chlorobenzene	100.0	0.05	ND	0.096	7	103	96
1,4-Dichlorobenzene	7.5	0.05	ND	0.095	7	106	95

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	93

ND = Not Detected

METHODS: EPA SW 846-1311, 8260.
CHEMIST: RP

Director, Dr. Blair Leftwich

5-29-97
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Nickell Environmental
Attention: Terry James
4113 W. Industrial.
Midland TX 79703

Date: May 27, 1997
Date Rec: 5/21/97
Project: STA.501-1
Proj Name: Facility Assessment & Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9705000362
Sampling Date: 5/19/97
Sample Condition: Intact and Cool
Sample Received By: JH

TCLP Vol in Sludge (mg/L)	EPA Limit	Reporting Limit	T73986 Tank	QC	RPD	%EA	%IA
Vinyl Chloride	0.2	0.05	ND	0.0	1	85	8
1,1-Dichloroethene	0.7	0.05	ND	0.0	1	110	9
Methyl Ethyl Ketone	200.0	0.05	ND	0.1	14	110	10
Chloroform	6.0	0.05	ND	0.0	4	99	9
1,2-Dichloroethane	0.5	0.05	ND	0.0	5	94	9
Benzene	0.5	0.05	ND	0.0	4	99	9
Carbon Tetrachloride	0.5	0.05	ND	0.0	4	103	9
Trichloroethene	0.5	0.05	ND	0.0	5	102	9
Tetrachloroethane	0.7	0.05	ND	0.0	7	105	9
Chlorobenzene	100.0	0.05	ND	0.0	7	103	9
1,4-Dichlorobenzene	7.5	0.05	ND	0.0	7	106	9

ND = Not Detected

	% RECOVERY
Dibromofluoromethane	93
Toluene-d8	97
4-Bromofluorobenzene	92

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
TCLP Vol	EPA 1311	5/22/97	EPA 8260	5/23/97	RP	0.1 ea	100 ea

Director, Dr. Blair Leftwich

5-27-97
Date

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

Extraction Date: 05/21/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T73985 Sump	QC	RPD	Asemnt & Sampling %EA	%IA
Pyridine	5.0	0.5	ND	88	1	36	110
1,4-Dichlorobenzene	7.5	0.5	ND	80	12	45	100
o-Cresol	200.0	0.5	ND	74	15	55	93
m,p-Cresol	200.0	0.5	ND	74	15	51	93
Total Cresol	200.0	0.5	ND	---	---	---	---
Hexachloroethane	3.0	0.5	ND	74	11	49	93
Nitrobenzene	2.0	0.5	ND	77	10	60	96
Hexachlorobutadiene	0.5	0.05	ND	76	13	56	95
2,4,6-Trichlorophenol	2.0	0.5	ND	79	13	65	99
2,4,5-Trichlorophenol	400.0	0.5	ND	78	13	67	98
2,4-Dinitrotoluene	0.13	0.04	ND	79	9	68	99
2,4-D	10.0	0.5	ND	83	3	49	104
Hexachlorobenzene	0.13	0.05	ND	78	4	80	98
2,4,5-TP	1.0	0.5	ND	76	2	53	95
Pentachlorophenol	100.0	0.5	ND	74	5	79	93
Chlordane	0.03	0.001	ND	0.053	23	34	106
Toxaphene	0.5	0.05	ND	2.09	1	117	105
Lindane	0.4	0.001	ND	0.0265	40	30	106
Heptachlor	0.008	0.001	ND	0.027	35	34	108
Heptachlor epoxide	0.008	0.001	ND	0.026	35	34	104
Total Heptachlor	0.008	0.001	ND	---	---	---	---
Endrin	0.02	0.001	ND	0.054	30	40	108
Methoxychlor	10.0	0.1	ND	0.028	28	42	112
Surrogates	**% RECOVERY**						
2-Fluorophenol	82						
Phenol-d6	82						
Nitrobenzene-d5	92						
2-Fluorobiphenyl	94						
2,4,6-Tribromophenol	82						
Terphenyl-d14	108						

***NOTE: Elevated reporting limits due to sample matrix interference.**

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/CC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5-29-97
DATE

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

Extraction Date: 05/21/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T73986 Tank	QC	Assmnt & Sampling RPD	%EA	%IA
Pyridine	5.0	1.25	ND	88	1	36	110
1,4-Dichlorobenzene	7.5	1.25	ND	80	12	45	100
o-Cresol	200.0	1.25	ND	74	15	55	93
m,p-Cresol	200.0	1.25	ND	74	15	51	93
Total Cresol	200.0	1.25	ND	—	—	—	—
Hexachloroethane	3.0	1.25	ND	74	11	49	93
Nitrobenzene	2.0	1.25	ND	77	10	60	96
Hexachlorobutadiene	0.5	0.125	ND	76	13	56	95
2,4,6-Trichlorophenol	2.0	1.25	ND	79	13	65	99
2,4,5-Trichlorophenol	400.0	1.25	ND	78	13	67	98
2,4-Dinitrotoluene	0.13	0.1	ND	79	9	68	99
2,4-D	10.0	1.25	ND	83	3	49	104
Hexachlorobenzene	0.13	0.125	ND	78	4	80	98
2,4,5-TP	1.0	0.375	ND	76	2	53	95
Pentachlorophenol	100.0	1.25	ND	74	5	79	93
Chlordane	0.03	0.001	ND	0.053	23	34	106
Toxaphene	0.5	0.05	ND	2.09	1	117	105
Lindane	0.4	0.001	ND	0.0265	40	30	106
Heptachlor	0.008	0.001	ND	0.027	35	34	108
Heptachlor epoxide	0.008	0.001	ND	0.026	35	34	104
Total Heptachlor	0.008	0.001	ND	—	—	—	—
Endrin	0.02	0.001	ND	0.054	30	40	108
Methoxychlor	10.0	0.1	ND	0.028	28	42	112
Surrogates	**% RECOVERY**						
2-Fluorophenol	84						
Phenol-d6	86						
Nitrobenzene-d5	93						
2-Fluorobiphenyl	95						
2,4,6-Tribromophenol	73						
Terphenyl-d14	109						

***NOTE: Elevated reporting limits due to sample matrix interference.**

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/CC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5-29-97
DATE

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Extraction Date: 05/21/97
Analysis Date: 05/28/97
Sampling Date: 05/19/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T73985	Sump	<0.10	<0.10	<0.02	<0.05	<0.10	<1.0	<0.20	<0.01
T73986	Tank	<0.10	<0.10	<0.02	<0.05	<0.10	<1.0	1.5	<0.01
QC	Quality Control	4.9	4.8	5.0	5.1	4.9	0.9	5.1	0.057
	Reporting Limit	0.10	0.10	0.02	0.05	0.10	1.0	0.20	0.01
	RPD	2	1	2	2	1	2	1	2
	% Extraction Accuracy	89	84	84	89	87	82	92	114
	% Instrument Accuracy	97	96	99	101	98	96	102	93

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: DM
METHODS: EPA SW 846-1311, 6010, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Ba, Cd, Cr; Pb; 1.0 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

5-29-97
Date

05/08/1997 07:34 9155203844 NICKELL: PAGE 12

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL
Attention: Terry James
19 Barry Road
Midland, TX 79706

May 29, 1997
Receiving Date: 05/21/97
Sample Type: Sludge
Project No: Sta. 501-1
Project Location: Hobbs, New Mexico

Prep Date: 05/27/97
Analysis Date: 05/27/97
Sampling Date: 05/19/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	IGNITABILITY
	EPA LIMIT =	---	500	250	---	<2 >12.5	---
3985	Sump	Non-reactive	10	30	Non-corrosive	10.3	Nonignitable
3986	Tank	Non-reactive	<8.0	0.8	Non-corrosive	7.9	Nonignitable
	Quality Control	---	---	---	---	7.0	---
	D	0	0	0	0	0	0
	Extraction Accuracy	---	---	---	---	---	---
	Instrument Accuracy	---	---	---	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 2.1.1, 4500-S2-E; EPA 335.2.
CHEMIST: JT/RC

Director, Dr. Blair Leftwich

5-29-97
DATE

08/08/1997 07:34 9155203844 NICKELL: PAGE 13

STA. 501-1

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
Nickell Environmental
Attention Terry James
4113 W. Industrial.
Midland TX 79703

Date: May 05, 1997
Date Rec: 4/29/97
Project: STA.501-1
Proj Name: Facility Assessment & Sampling
Proj Loc: Hobbs, NM

Lab Receiving # : 9704000522
Sampling Date: 4/25/97
Sample Condition: Intact and Cool
Sample Received By: JH

TA#	Field Code	MATRIX	GRO* (mg/L)
T72496	WW-1	Water	11.3
QC			1
RPD			10
% Extraction Accuracy:			81
% Instrument Accuracy:			98

Reporting Limit: 0.1

TEST	PREP METHOD	PREP DATE	ANALYSIS METHOD	ANALYSIS COMPLETED	CHEMIST	QC: (mg/L)	SPIKE: (mg/L)
8015G	EPA 5030	4/30/97	EPA 8015B	4/30/97	DH	1	1

* Gasoline Range Organics

Director, Dr. Blair Leftwich

5-5-97
Date

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

MAY 1997
Received
Hobbs
OCD

TRACE ANALYSIS, INC.
5701 Aberdeen Avenue Lubbock, Texas 79424 806•794•1296 FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.901-1
Project Location: Hobbs, NM

Extraction Date: 04/29/97
Analysis Date: 05/01/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP METALS (mg/L)

TA#	Field Code	As	Se	Cd	Cr	Pb	Ag	Ba	Hg
	EPA LIMIT =	5.0	1.0	1.0	5.0	5.0	5.0	100.0	0.20
T72496	WW-1	<0.10	<0.10	<0.02	<0.05	<0.10	<0.05	<0.20	<0.01
QC	Quality Control	5.0	5.0	5.0	5.1	4.9	1.02	5.0	0.0048
	Reporting Limit	0.10	0.10	0.02	0.05	0.10	0.05	0.20	0.01
	RPD	1	2	3	2	5	25	3	1
	% Extraction Accuracy	95	98	98	77	93	90	101	100
	% Instrument Accuracy	99	101	100	101	97	102	100	96

Received Hobbs Off MAY 1998

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: RC
METHODS: EPA SW 846-1311, 6010, 7470.
TCLP METALS SPIKE: 2.0 mg/L As, Se, Cd, Cr, Pb, Ba; 0.15 mg/L Ag; 0.05 mg/L Hg.
TCLP METALS QC: 5.0 mg/L As, Se, Cd, Cr, Pb, Ba; 1.0 mg/L Ag; 0.005 mg/L Hg.

Director, Dr. Blair Leftwich

5/1/97
Date

08/08/1997 07:34 9155203844 NICKELL: PAGE 15

TRACE ANALYSIS, INC.
6701 Aberdeen Avenue Lubbock, Texas 79424 800•794•1296 FAX 800•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Prep Date: 04/29/97
Analysis Date: 04/29/97
Sampling Date: 04/25/97
Sample Condition: Intact & Cool
Sample Received by: JH
Project Name: Facility Assessment & Sampling

TA#	Field Code	REACTIVITY	SULFIDES (ppm)	CYANIDES (ppm)	CORROSIVITY	pH (s.u.)	FLASHPOINT (^{o}F)
	EPA LIMIT =	---	500	250	---	<2 >12.5	>140 ^{o}F
T72496	MW-1	Non-reactive	<10	<2.5	Non-corrosive	7.7	>150
QC	Quality Control	---	---	---	---	7.0	---
RPD		0	0	0	0	0	0
% Extraction Accuracy		---	---	--	---	---	---
% Instrument Accuracy		---	---	--	---	100	---

METHODS: EPA SW 846-2.1.3, 2.1.2, 1010.
CHEMIST: JT

Director, Dr. Blair Leftwich

5/1/97
DATE

08/08/1997 07:34 9155203844 NICKELL PAGE 16

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

May 1, 1997

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#17 Barry Road
Midland, TX 79706

Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobbs, NM

Extraction Date: 04/30/97
Analysis Date: 04/30/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Asent & Sampling

TCLP Semi-Volatiles (mg/L)	EPA Limit	Reporting Limit*	T72496 WW-1	QC	RPD	%RA	%IA
Pyridine	5.0	0.5	ND	89	19	13	111
1,4-Dichlorobenzene	7.5	0.5	ND	84	3	43	105
o-Cresol	200.0	0.5	ND	77	9	48	96
m,p-Cresol	200.0	0.5	ND	75	8	45	94
Total Cresol	200.0	0.5	ND	---	---	---	---
Hexachloroethane	3.0	0.5	ND	79	2	45	99
Nitrobenzene	2.0	0.5	ND	74	4	51	93
Hexachlorobutadiene	0.5	0.1	ND	80	5	49	100
2,4,6-Trichlorophenol	2.0	0.5	ND	78	3	48	98
2,4,5-Trichlorophenol	400.0	0.5	ND	81	4	56	101
2,4-Dinitrotoluene	0.13	0.1	ND	82	3	58	103
2,4-D	10.0	0.5	ND	85	8	46	106
Hexachlorobenzene	0.13	0.1	ND	85	3	86	106
2,4,5-TP	1.0	0.5	ND	86	6	45	108
Pentachlorophenol	100.0	0.5	ND	80	4	72	100
Chlordane	0.03	0.02	ND	0.0515	2	89	103
Toxaphene	0.5	0.5	ND	1.98	39	65	99
Lindane	0.4	0.02	ND	0.025	0	84	100
Heptachlor	0.008	0.002	ND	0.025	0	78	100
Heptachlor epoxide	0.008	0.002	ND	0.025	0	84	100
Total Heptachlor	0.008	0.02	ND	---	---	---	---
Endrin	0.02	0.02	ND	0.050	2	81	100
Methoxychlor	10.0	2.0	ND	0.25	0	92	100
Surrogates	% RECOVERY						
2-Fluorophenol	84						
Phenol-d6	88						
Nitrobenzene-d5	92						
2-FluoroDiphenyl	98						
2,4,6-Tribromophenol	108						
Terphenyl-d14	118						

*NOTE: Elevated reporting limits due to sample matrix interference.

Methods: EPA SW 846-1311, 8270, 8080.
CHEMIST: HC/CC/MB
ND - Not Detected

Director, Dr. Blair Leftwich

5/1/97
DATE

TRACE ANALYSIS, INC.
A Laboratory for Advanced Environmental Research and Analysis

6701 Aberdeen Avenue
Lubbock, Texas 79424
806•794•1296
FAX 806•794•1298

ANALYTICAL RESULTS FOR
NICKELL ENVIRONMENTAL CORP.
Attention: Terry James
#19 Barry Road
Midland, TX 79706

May 1, 1997
Receiving Date: 04/29/97
Sample Type: Water
Project No: STA.501-1
Project Location: Hobb, NM

Extraction Date: 04/30/97
Analysis Date: 04/30/97
Sampling Date: 04/25/97
Sample Condition: I & C
Sample Received by: JH
Project Name: Facility Assmnt & Sampling

TCLP VOLATILES (mg/L)	EPA LIMIT	Reporting Limit	T72496 WW-1	QC	RPD	%EA	%IA
Vinyl chloride	0.2	0.05	ND	0.112	2	81	112
1,1-Dichloroethene	0.7	0.05	ND	0.099	1	101	99
Methyl Ethyl Ketone	200.0	0.05	1.71	0.114	1	94	114
Chloroform	6.0	0.05	ND	0.097	0	103	97
1,2-Dichloroethane	0.5	0.05	ND	0.097	1	94	97
Benzene	0.5	0.05	ND	0.100	2	101	100
Carbon Tetrachloride	0.5	0.05	ND	0.099	1	112	99
Trichloroethene	0.5	0.05	ND	0.101	2	106	101
Tetrachloroethene	0.7	0.05	ND	0.102	2	106	102
Chlorobenzene	100.0	0.05	ND	0.103	1	103	103
1,4-Dichlorobenzene	7.5	0.05	ND	0.103	0	98	105

SURROGATES	% Recovery
Dibromofluoromethane	93
Toluene-d8	93
4-Bromofluorobenzene	92

ND = Not Detected

METHODS: EPA SW 846-1311, 6260.
CHEMIST: RP

Director, Dr. Blair Leftwich

5/1/97
DATE

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Ike Tavarez

Phone #: 915/520-7720

FAX #: 915/520-3844

Company Name & Address: Chevron Env. Corp. #15 Bear Kat Midland, TX 79705

P.O. #: 15STA.5011

Project Name: Remedial Assessment Soil Sampling

Project Location: Hobbs, New Mexico

Sampler Signature: Tony Savoie

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	Other	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	Other	SAMPLING: DATE	TIME
	MW-1	6	40 ml	X							X			4/25	3:00
	FB-1	2	40 ml					X			X			4/25	2:00

ANALYSIS REQUEST

BTEX, MTBE	TPH, 8015	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270				
	X		X	X	X	X						
	X		X	X	X	X						

SPECIAL HANDLING

Turn around # of days	Fax ASAP	Hold		

Relinquished by: Date: 4/29/97 Time: 5:00

Received by: Nelda Skelton Date: 4/29/97 Time: 5:00PM

Relinquished by: Date: Time:

Received by: Date: Time:

Relinquished by: Date: Time:

Received at Laboratory by: Date: Time:

REMARKS: Turn around ASAP on MW-1
Normal turnaround on FB-1

Attn: Mark Nickell

9 samples - MS

08/08/1997 07:34 9155203844 NICKELL: PAGE 19

1 DRS DP

362

TraceAnalysis, Inc.

6701 Aberdeen Avenue Lubbock, Texas 79424
Tel (806) 794 1296 Fax (806) 794 1298
1 (800) 378 1296

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: TERRY JAMES
Phone #: (915) 888-3339
FAX #: (915) 520-3844

Company Name & Address: NICKELL ENVIRONMENTAL CORP. 19 BARRY RD. MIDLAND, TX 79706

Project #: STA. 501-1
Project Name: FACILITY ASSMNT. & SAMPLING

Project Location: Hobbs, New Mexico
Sampler Signature: Chris E. Stapp

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	SAMPLING: DATE	TIME	BTEX, MTBE	TPH 8015 DIESEL	Total Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	8240 / 8260	8270
73985	SUMP	2					X			X		5/19	2:30		X		X	X	X	X		
86	TANK	2					X			X		5/19	2:30		X		X	X	X	X		

Received MAY 1997 Hobbs OCD

SPECIAL HANDLING: Turn around # of days; Fax ASAP; Hold

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Chris E. Stapp	5/20/97	2:10	Helen Shelton	5/20/97	2:10PM
Helen Shelton	5/20/97	5:00 PM	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at Laboratory by:	Date:	Time:
			Q.D. Haskell	5/21/97	9:30a

REMARKS

F 5-28-97 9AM

Rushed Turnaround

C/T

4 samples - HS 11/11/15

08/08/1997 07:34 9155203844 NICKELL: PAGE 20

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

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

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

RECEIVED
APR 07 1998
Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Weatherford Enterra
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Odessa facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Fluid Transport
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 8870 W Loop 338 N Odessa	Texas

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Weatherford Enterra Odessa facility. The material was generated by hydroblasting oilfield pipe. This material has been approved in the past. I have inclused a cerrtificate of waste, a chain of custody, and a Texas waste code.

04-003

APR 1998 Received Hobbs OCD

Printed in Hobbs 4/8/98

Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Environmental Compliance Manager DATE: 04/03/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Env Engr DATE: 4-6-98

APPROVED BY: Martyne J Kieling TITLE: Env Geologist DATE: 4/8/98

LLANO PERMIAN ENVIRONMENTAL

1031 Andrews Highway, Suite 207, Midland, Texas, 79701 ○ Telephone (915) 522-2133 ○ Telefax (915) 522-2180

April 1, 1998

Ms. Billy Charo
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Waste Disposal Approval Request

Llano Permian Environmental Services requests approval to dispose of 120 bbl (5,040 gallons) of waste water and sludge generated by Weatherford Enterra Inc. (Weatherford). Weatherford has generated this waste from washing/steam cleaning and hydroblasting oil field tools and pipe.

Weatherford generates this waste at:
8870 West Loop 338
Odessa, TX 79764
TX ID #75327
EPA ID #TXD988025755

The transporter of this waste will be Fluid Transport of Snyder, Texas. Fluid Transport is at:
P.O. Box 99
Snyder, TX 79550
(915) 573-5421
TX ID #41382
EPA ID # TXD982756744

Please find attached copies of the certificate of waste, Texas Notice of Registration (NOR) analytical data, and chain of custody forms. Should you require additional information or have any questions please contact me at (915)522-2133.

Sincerely,
LLANO-PERMIAN ENVIRONMENTAL SERVICES

Robbie O. Walker
Environmental Technician

cc: Terry James, Llano-Permian Environmental
File: 101-130

Attachments



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Weatherford Enterra, Inc.

ADRESS 8870 West Loop 338 Odessa TX 79763

GENERATING SITE 8870 West Loop 338 (Pipe Plant) Odessa TX 79763

COUNTY Ector STATE Texas

TYPE OF WASTE Sludge and waste water

ESTINATED VOLUME 120 bbl. (5,040 gallons)

GENERATING PROCESS This waste was generated from hydroblasting oilfield pipe.

REMARKS This waste is from the West Lp. (Pipe Plant) facility.

NMOCD FACILITY **CONTROLLED RECOVERY INC.**

TRUCKING COMPANY Fluid Transports (915)573-5421

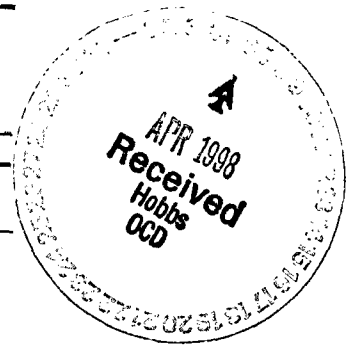
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous, I further certify that to my Knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40CFR, Section 2613.

AGENT _____
SIGNATURE

NAME Robbie O. Walker
PRINTED

ADDRESS 1031 Andrews Hwy., Ste 207B
Midland, Texas 79701

DATE October 28,1997



XENCO Laboratories

1301 Meadowglen Suite L Houston, Texas 77082
(713) 589-0692 Fax (713) 589-0695

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Page 1 of 1

Lab Batch # 171634-1

Contractor: Nickell Environmental Phone: (915) 520-4100

Address: 19 Barry Rd Midland TX 797

Project Name: Sump disposal Project Director: Terry James

Project Location: Pipe Plant WLP Project Manager: Robbie Walker

Sampler Signature: Debbie Walker Project No: WEA116-0000 Pipe Plant

No. coolers this shipment:
Carrier: FedEx
Airbill No: 147701791 31
Contractor COC #
Quote #:
P.O. No:

SAMPLE CHARACTERIZATION

Field ID	Date	Time	Depth	Soil	Water	Comp	Grab	Container Size	Container Type P,G	Preservative Ice	Preservative Other	Matrix: Soil, Water, Diss, Ext, Unknown, Waste Oil	Sample Description	No of Containers Total	BTEX (602/8020/8021)	TPH (418.1)	TCLP Metals	TCLP Volatiles	TCLP SVOA	Please Hold	Lab ID #
SP	7/15	7:15 am					X	32 oz	G	X			Sump Sludge		X	X	X	X	X		1
																					2
																					3
																					4
																					5
																					6
																					7
																					8
																					9
																					10

Turn-around: ASAP / 24 hrs / 48 hrs / Standard

Remarks:

Received by: Debbie Walker DATE: 7/15/97 TIME: 9:15

Received by: DATE: TIME:

Received For Laboratory by: DATE: 7-16-97 TIME: 1530

Remarks:

Received by Hobbs OCD 7/16/97 2:45

JUL-24-1997 10:28 NICKELL ENVIRONMENTAL

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171634-001						
	Field ID:	SP						
	Depth:							
Ignit./F.P. Analyzed by EPA 1010	Date Analyzed - Analytical Results	deg. F						
	Jul 22, 1997							
Ignitability, Pensky-Martens	> 180							
TCLP Metals Analyzed by EPA1311/6010	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)						
	Jul 18, 1997							
Arsenic	< 0.5							
Barium	1.3							
Cadmium	< 0.10							
Chromium	< 0.5							
Lead	< 0.5							
Silver	< 0.08							
Selenium	< 0.4							
TCLP Mercury Analyzed by EPA 7470	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)						
	Jul 22, 1997							
Mercury	< 0.022							
Cyanide RCI Analyzed by SW846 7.3.3	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)						
	Jul 22, 1997							
Cyanide	< 0.5							
Sulfide RCI Analyzed by SW846 7.3.4	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)						
	Jul 22, 1997							
Sulfide	< 0.5							
pH Analyzed by EPA 9045	Date Analyzed - Analytical Results	S.U.						
	Jul 18, 1997							
pH, Electrometric	7.30							
TCLP S.V. Analyzed by EPA 8270	Date Analyzed - Analytical Results	ppm (mg/L - mg/Kg)						
	Jul 21, 1997							

Received Jul 1998 Hobbs OCD

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	Lab ID: / Field ID: / Depth:	171634-001 SP					
1,4-Dichlorobenzene		< 0.513					
2,4-Dinitrotoluene		< 0.051					
Hexachlorobenzene		< 0.043					
Hexachlorobutadiene		< 0.205					
Hexachloroethane		< 0.513					
2-Methylphenol		< 5.128					
3-Methylphenol		< 5.128					
4-Methylphenol		< 5.128					
Nitrobenzene		< 0.513					
Pentachlorophenol		< 5.128					
Pyridine		< 0.513					
2,4,5-Trichlorophenol		< 5.128					
2,4,6-Trichlorophenol		< 0.513					
TCLP Vol. Analyzed by EPA1311/8260		Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)					
		Jul 22, 1997					
Benzene		< 0.05					
2-Butanone		< 4.00					
Carbon Tetrachloride		< 0.05					
Chloroform		< 0.25					
1,2-Dichloroethane		< 0.05					
1,1-Dichloroethene		< 0.05					
Tetrachloroethene		< 0.05					
Trichloroethene		< 0.05					
Vinyl chloride		< 0.025					
Chlorobenzene		< 2.00					

Received JUL 1997 Hobbs OCD

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Edward T. Yonemoto, Ph.D.
QA/QC Manager

XENCO Laboratories

CERTIFICATE OF ANALYSIS SUMMARY 1-71634

Nickell Environmental

Project Name: Sump Disposal

Project ID: WEA116-0000 Pipe Plant
Project Manager: Robbie Walker
Project Location: Pipe Plant WLP

Date Received in Lab: Jul 16, 1997 15:30 by RT
Date Report Faxed: Jul 24, 1997
XENCO contact: Scott Sample/Edward Yonemoto

Analysis Requested	*Lab ID:*	171634-001					
	Field ID:	SP					
	Depth:						
TPH Analyzed by EPA 418.1	Date Analyzed - Analytical Results ppm (mg/L - mg/Kg)						
	Jul 21, 1997						
Total Petroleum Hydrocarbons	10300						

Received
Hobbs
OCD

This report summary, and the entire report it represents, has been made for the exclusive and confidential use of Nickell Environmental.
The interpretations and results expressed through this analytical report represent the best judgment of XENCO Laboratories. Xenco Laboratories, however, assumes no responsibility and makes no warranty to the end use of the data hereby presented.

Edward H. Yonemoto, Ph.D.
QA/QC Manager

75327 Weatherford U.S., Inc.

**** WASTE INFORMATION ****

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
3010307		Active	01/26/94	Off		No

Description from Generator: Pipe scale, scraping of pipe used in the oil and gas industry/ ongoing process.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

---

00116951 1 Active 01/26/94 Off No

Description from Generator: Sump material /tools are steam cleaned and washed to remove lubricants, dirt, paint, scale, and corrosion products/August 1993.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

#: 0116951

*

60C1203H H Active 08/05/94 Off No No

Description from Generator: Spent solvents (mineral spirits/varsol). Oil field related equipment, tools and parts are rinsed in solvent to removed grease and debris during servicing. Waste is mixture of spent petroleum solvent with grease and silt debris parts washing.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D001 D006 D008 D018 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Spent Solvent - Parts Wash

60022021H H Active 08/05/94 Off No

Description from Generator: Spent immersion cleaner/cold cleaner. Oil field related equipment, tools, parts, and pipe are cleaned in immersion cleaner to remove grease and debris during servicing. Waste is a mixture of heavy aromatic Naptha, oil, Monoethanolamine, grease and silt debris.
Form Code: 203 Non-halogenated solvent
EPA Hazardous Waste Numbers: D006 D008 D018 D021 D027 D035 D039 D040
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Immersion Cleaner

60032051 1 Active 08/05/94 Off No

Description from Generator: Oil-water emulsion and mixture from oil field equipment servicing. Oil field hydraulic equipment, pipe, and tools are cleaned and reconditioned. Oil, grease, and wash water collect in sump. Waste is mixture of oil and water. Non-hazardous.
Form Code: 205 Oil-water emulsion or mixture
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

Company's Internal Code(s): Sump Waste - Liquid

60045012 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, lumber, plastic, paper packing material, plastic packing material, styrofoam, glass, aluminum foil. Does not include metal parts, floor sweepings or scrap metals. Generating process is general non hazardous maintenance.

Form Code: 901 Plant production refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Plant Refuse

60059032 2 Active 08/05/94 Off No

Description from Generator: Class 2 paper, cardboard, linings, wrappings, paper, wood or plastic wrappings, food wastes, glass, aluminum foil, aluminum cans, plastics, styrofoam, food packings, empty shipping cartons, binders. Process generating is from general office operations.

Form Code: 903 Plant Office refuse

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

Company's Internal Code(s): Office Refuse

60063102 1 Active 08/05/94 Off No

Description from Generator: Used oil filters from vehicle and equipment maintenance. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60072061 1 Active 08/05/94 Off No

Description from Generator: Used motor oil and used hydraulic oil from vehicle and equipment maintenance, to be sent to oil recycler. Non-hazardous.

Form Code: 206 Waste oil

Current Management Units: None

* Origin Codes: 1 Onsite-process/service

60083101 1 Active 08/05/94 Off No

Description from Generator: Used paint filters from spray paint application equipment used in painting oil field tools and equipment. Filters have been dried. There are no liquids present. Non-hazardous.

Form Code: 310 Spent solid filters or adsorbents (inorganic)

Current Management Units: None

* Origin Codes: 1 Onsite-process/service



75127 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete
****** Active Wastes ******						
60092091 H	H	Active	08/05/94	Off		No

Description from Generator: Paint waste, oil based, liquid containing paint thinner of mineral spirits/Varsol. Generating process is from painting oil field tools and equipment, general maintenance. Ignitable.
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60102091 1 Active 08/05/94 Off No

Description from Generator: Waste paint, water based. Process generating is from paint parts, tools and equipment - general maintenance.
Form Code: 209 Organic paint, ink, lacquer, or varnish
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60114091 1 Active 08/05/94 Off No

Description from Generator: Paint waste solids from clean up of paint booth overspray, floor scrappings and wood with overspray. Generating process is from painting oil field tools and equipment.
Form Code: 409 Other non-halogenated organic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60122111 H Active 08/05/94 Off No

Description from Generator: Spent waste paint thinner used in thinning paint, cleaning paint equipment and general maintenance for paint preparation activities of oil field tools and eqiment. Contains mineral spirits/Varsol/VM&P Naptha. Ignitable.
Form Code: 211 Paint thinner or petroleum distillates
EPA Hazardous Waste Numbers: D001
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting A19 Other cleaning and degreasing
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60133191 1 Active 08/05/94 Off No

Description from Generator: Pipe scale solids, including rust, drilling mud and dry oil. Generated during the cleaning and reconditioning of oil field drilling pipe. Non-hazardous.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

***** Active Wastes *****

60143091 1 Active 08/05/94 Off No
Description from Generator: Used lead batteries, or battery parts, casings or cores. Process generating is "out of service" batteries from facility vehicles and equipment maintenance. To be sent to battery recycler. Hazardous.
Form Code: 309 Batteries or battery parts, casings, cores
EPA Hazardous Waste Numbers: D002 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A55 Filter/Battery replacement
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7349 Building Maintenance Services, NEC

60153101 1 Active 08/05/94 Off No
Description from Generator: Oil absorbants, rags and pads from general clean up and maintenance activities. For cleaning minor releases of oil from maintenance and repair of equipment. Waste is generally a mixture of non-biodegradable absorbent granules, rags & pads impregnated with oil. Non-hazardous.
Form Code: 310 Spent solid filters or absorbents (inorganic)
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60163081 1 Active 08/05/94 Off No
Description from Generator: Empty metal drums and empty metal containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 308 Empty or crushed metal drums or containers.
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60174061 1 Active 08/05/94 Off No
Description from Generator: Empty fiber or plastic containers from products purchased. Rendered empty after use of product. Non-hazardous.
Form Code: 406 Empty fiber or plastic containers
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60182961 1 Active 08/05/94 Off No
Description from Generator: Waste glycol based antifreeze/coolant. Removed from facility vehicles and equipment during service and repair. Non-hazardous.
Form Code: 296 Ethylene glycol based antifreeze
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60196951 1 Active 05/18/95 Off No
Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned & washed to remove lubricant, dirt, paint, scale & corrosion. Liquids are removed & sludge remains.
Form Code: 595 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump sludge



75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	TNRCC Audit Complete

****** Active Wastes ******

60253101 H Active 08/05/94 Off No
Description from Generator: Paint waste filters. Solid paint filters containing liquids. Not dry. Used paint filters from spray paint equipment used in paint equipment. Paint contains toluene and xylene from thinning process. Hazardous.1
Form Code: 310 Spent solid filters or adsorbents (inorganic)
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes:
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC
Company's Internal Code(s): Paint filters/hazardous

60264891 1 Active 08/05/94 Off No
Description from Generator: Petroleum contaminated solids. Non-hazardous. Sand, silt, grit, residual hydraulic oil, grease and paint chips accumulate from cleaning of oil field pipe, parts, and equipment.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60283191 1 Active 12/28/96 Off No
Description from Generator: Used tires removed from trucks & equipment. Tires are no longer in service & are sent to tire recycler.
Form Code: 319 Other waste inorganic solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service 3 From non-haz waste mgmt

6029209H H Active 09/18/95 Off No No
Description from Generator: Waste paint aerosol cans used for painting oil field tools & equipment. Oil field tools & equipment are painted as needed between use. Waste includes paint aerosol cans with residual paint & propellant
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

60304891 1 Active 09/18/95 Off No
Description from Generator: Drilling mud, cement & crude oil solids from cleaning oil field drilling mud circulation pits. Pits are serviced & cleaned at facility between rentals. Mate includes a mixture of solid residual drilling mud, cement, crude oil & paraffin scraped & cleaned from pits.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THROC Audit Complete

** Active Wastes **

6931109H H Active 09/18/95 Off No No

Description from Generator: Spent caustic solution used for stripping paint & grease from oil field rental tools during cleaning process. Waste includes mixed solution of water, sodium hydroxide, oil, grease & paint.
Form Code: 109 Spent caustic
EPA Hazardous Waste Numbers: D002 D006 D007 D008
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A03 Caustic (Alkali) cleaning
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found

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990001 H Active Off No

Description from Generator: D001 CHARACTERISTIC OF IGNITABILITY
Form Code:
EPA Hazardous Waste Numbers: D018 D039
Current Management Units: None
* Origin Codes:

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* The first value is considered the primary value (e.g. primary origin code).
As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

** No Longer Generated Wastes **

90196951 1 Inactive 09/18/95 PA No No

Description from Generator: Petroleum contaminated sludge from sump. Tools are steam cleaned and washed to remove lubricant, dirt, paint, scale and corrosion. Liquids are removed and this sludge remains.
Form Code: 695 Petro contam sldg not still bottoms & oily sludges
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Sump Sludge

00234891 1 Inactive 09/18/95 PA No No

Description from Generator: Pipe coating. Non hazardous. Pipe coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of the drippings from the application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None.
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Pipe coatings/drippings

As of 09/18/1995, the next unassigned sequence number for WASTES is 6032.

75327 Weatherford U.S., Inc.

Texas Waste Code	Waste Class	Status	Date of Status	Managed Onsite/ Offsite	Radio-active	THRCC Audit Complete
****** Active Wastes ******						

60203071 1 Active 08/05/94 Off No
Description from Generator: Scrap metal. Generated during the manufacture and servicing of oil field tools and equipment. Miscellaneous metal pieces and parts which are no longer useable are scrapped and sent to metal recycler. Non-hazardous.
Form Code: 307 Metal scale, filings, or scrap
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
Company's Internal Code(s): Scrap metal

60219022 2 Active 08/05/94 Off No
Description from Generator: Supplemental plant refuse - primarily solid floor sweepings from plant production operations. Non-hazardous.
Form Code: 902 Supplemental plant production refuse
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60222191 1 Active 08/05/94 Off No
Description from Generator: Oil based machine coolant/water soluable. Liquid. Spent coolant from machining process of tooling, cutting and grooving. Non-hazardous.
Form Code: 219 Other organic liquids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60234891 1 Active 09/18/95 Off No
Description from Generator: Pipe coating. Coating is applied to oil field drilling pipe to inhibit corrosion. Dried/solidified accumulations of drippings from application process are collected for disposal.
Form Code: 489 Petroleum contaminated solids
Current Management Units: None
* Origin Codes: 1 Onsite-process/service

60242058 H Active 08/05/94 Off No
Description from Generator: Paint waste, liquids, containing toluene and/or xylene. Spent paint from painting tools, parts and equipment. Hazardous
Form Code: 209 Organic paint, ink, lacquer, or varnish
EPA Hazardous Waste Numbers: D001 F003 F005
Current Management Units: None
* Origin Codes: 1 Onsite-process/service
* Source Codes: A21 Painting
* Measurement Points: 1 Before mixing
* SIC Codes: 1389 Oil & Gas Field Services, Not Elsewhere Found 3533 Oil Field Machinery & Equipment
7359 Equipment Rental And Leasing, NEC

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

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

Form C-13
Originated 8/8/

RECEIVED
MAY 07 1998
Environmental Bureau
Oil Conservation Division

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ W Price - OK 5/4/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator Baker Oil Tools 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 W County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. The material was generated by steaming tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

04-013

MAY 1998
Received
Hobbs
OCD

Printed in Hobbs 5-7-98

Estimated Volume 60 BBLS cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo
Waste Management Facility Authorized Agent
TITLE: Environmental Compliance Manager DATE: 04/30/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Envr Engr DATE: 5/4/98

APPROVED BY: Martyn J. Kelly TITLE: Env Geologist DATE: 5/7/98

FAX TRANSMITTAL MEMO

HOBBS, NEW MEXICO

Telephone: 505-397-3671 • Fax: 505-393-4213

Date:	5-11-98		
To:	Billie Charo	**From:**	Ray Dockery
Location:		**Ref:**	
Company:	CRI	**Subject:**	Sump disposal
Fax No.:	393-3615	**# pgs:(inc. this pg)**	2
Copy:			

The waste we are sending remains the same as previously tested.

Ray Dockery

MAY 1998
Received
Hobbs
OCD

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Baker Oil Tools

ADDRESS P O Box 1828 Hobbs, NM 88240

GENERATING SITE 507 West County Road Hobbs

COUNTY Lea **STATE** NM

TYPE OF WASTE Sump water

ESTIMATED VOLUME 60 bbls

GENERATING PROCESS steaming tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Rowland Trucking

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Ray Dockery
SIGNATURE

NAME Ray Dockery
PRINTED

ADDRESS P O Box 1828

Hobbs, NM 88240

DATE 5-4-98

MAY 1998
Received
Hobbs
OCD

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/13/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/AH

TCLP METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	02/12/98	02/06/98	02/11/98	02/12/98	02/12/98	02/12/98	02/10/98	02/06/98
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H3444-1 WASHBAY	<1	<1	<5	<0.1	<1	<1	<0.02	<0.01
Quality Control	0.095	2.358	4.945	2.025	5.026	5.006	0.0087	0.0485
True Value QC	0.100	2.500	5.000	2.000	5.000	5.000	0.0100	0.0500
% Recovery	95	94	99	101	101	100	87	97
Relative Standard Deviation	7.5	0.5	14.6	0.9	1.9	4.7	8.9	10.1
METHODS: EPA 1311, 600/4-91/0	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

MAY 1998
Received
Hobbs
OCD

Date 2/13/98

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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/07/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/06/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.052	52	0.100
o-Cresol	200	0.011	<0.002	0.055	55	0.100
m, p-Cresol	200	0.008	<0.002	0.115	58	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.050	50	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.106	106	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.088	88	0.100
Pentachlorophenol	100	<0.008	<0.002	0.091	91	0.100

	% RECOVERY
Fluorophenol	29
Phenol-d5	29
Nitrobenzene-d5	71
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	76
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510

MAY 1998
Received
Hobbs
OCD

Burgess J. A. Cooke, Ph. D.

2/7/98
Date

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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/18/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		02/13/98	02/13/98	02/17/98	02/18/98
H3444-1	WASHBAY	<50	<50	7.26	>140
Quality Control		NR	0.105	7.01	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

MAY 1998
Received
Hobbs
OCD

Chemist

2/18/98
Date

H3444R.XLS

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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

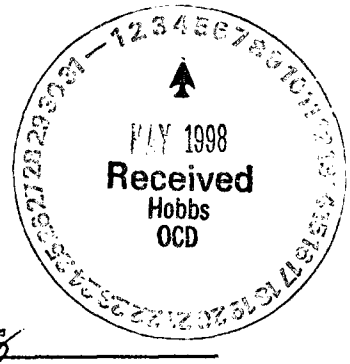
Receiving Date: 02/05/98
Reporting Date: 02/05/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/05/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.103	103	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.087	87	0.100
Methyl Ethyl Ketone	200	0.055	<0.050	0.114	114	0.100
Chloroform	6.0	<0.005	<0.005	0.106	106	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.097	97	0.100
Benzene	0.5	0.009	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.112	112	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.116	116	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	111
Toluene-d8	110
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311



Burgess J. A. Cooke, Ph. D.

2/5/98
Date

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CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of ____

Company Name:	BAKER OIL TOOLS	BILL TO	PO #:
Project Manager:	BILL RUSSELL	Company:	BAKER
Address:	507 W County Road	Attn:	
City:	HOBBS State: NM Zip: 88240	Address:	P.O. Box 1828
Phone #:	505-397-3671	City:	Hobbs
Fax #:	505-393-4213	State: NM	Zip:
Project #:	WASH BAY Project Owner:	Phone #:	
Project Name:		Fax #:	
Project Location:	HOBBS		

ANALYSIS REQUEST

TCLP Chlorides

Received
Hobbs
OCD
FEB 1998

FOR LAB USE ONLY				MATRIX						PRES.			SAMPLING	
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID:	ICE / COOL	OTHER :	DATE	TIME
H 3444-1	WASH BAY	G	4		✓						✓		02/05/98	11:30

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By: Bill Russell	Date:	Received By: (Lab Staff)	REMARKS: COPY TO CRI
Delivered By: (Circle One)	Time:		
Sampler - UPS - Bus - Other:		Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

Form C-13
Originated 8/8/

RECEIVED
MAY 07 1998
Environmental Bureau
Oil Conservation Division

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ W Price-OK 5/4/98 Verbal Approval Received: Yes ☒ No ☐	4. Generator Baker Oil Tools 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 W County Road	Hobbs, New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. The material was generated by steaming tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

04-012

MAY 1998
Received
Hobbs
OCD

Printed in Hobbs 5-7-98

Estimated Volume 60 BBLS cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo Waste Management Facility Authorized Agent TITLE: Environmental Compliance Manager DATE: 04/30/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Env Engr DATE: 5/4/98

APPROVED BY: _____ TITLE: Env Geologist DATE: 5/7/98


Received
Hobbs
OCD


Received
Hobbs
OCD

BAKER OIL TOOLS

FAX TRANSMITTAL MEMO

HOBBS, NEW MEXICO

Telephone: 505-397-3671 • Fax: 505-393-4213

Date:	5-4-98		
To:	Billie Charo	**From:**	Ray Dockery
Location:		**Ref:**	
Company:	CRI	**Subject:**	Sump disposal
Fax No.:	393-3615	**# pgs:(inc. this pg)**	2
Copy:			

The waste we are sending remains the same as previously tested.

Ray Dockery



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Baker Oil Tools

ADDRESS P O Box 1828 Hobbs, NM 88240

GENERATING SITE 507 West County Road Hobbs

COUNTY Lea **STATE** NM

TYPE OF WASTE Sump water

ESTIMATED VOLUME 60 bbls

GENERATING PROCESS steaming tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Rowland Trucking

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

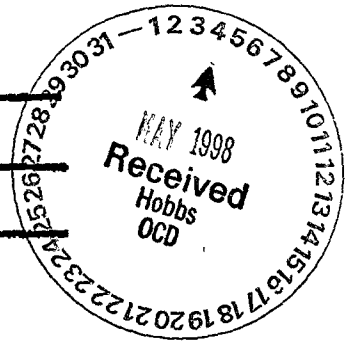
AGENT Ray Dockery
SIGNATURE

NAME Ray Dockery
PRINTED

ADDRESS P O Box 1828

Hobbs, NM 88240

DATE 5-11-98



CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/13/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/AH

TCLP METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	02/12/98	02/06/98	02/11/98	02/12/98	02/12/98	02/12/98	02/10/98	02/06/98
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H3444-1 WASHBAY	<1	<1	<5	<0.1	<1	<1	<0.02	<0.01
Quality Control	0.095	2.358	4.945	2.025	5.026	5.006	0.0087	0.0485
True Value QC	0.100	2.500	5.000	2.000	5.000	5.000	0.0100	0.0500
% Recovery	95	94	99	101	101	100	87	97
Relative Standard Deviation	7.5	0.5	14.6	0.9	1.9	4.7	8.9	10.1
METHODS: EPA 1311, 600/4-91/0	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

Date 2/13/98

Received
MAY 1998
Hobbs
OCD

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/07/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/06/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

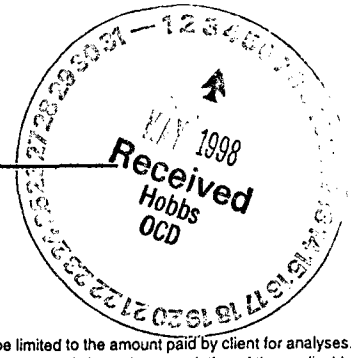
TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.052	52	0.100
o-Cresol	200	0.011	<0.002	0.055	55	0.100
m, p-Cresol	200	0.008	<0.002	0.115	58	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.050	50	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.106	106	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.088	88	0.100
Pentachlorophenol	100	<0.008	<0.002	0.091	91	0.100

	% RECOVERY
Fluorophenol	29
Phenol-d5	29
Nitrobenzene-d5	71
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	76
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke, Ph. D.

2/7/98
Date



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/18/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		02/13/98	02/13/98	02/17/98	02/18/98
H3444-1	WASHBAY	<50	<50	7.26	>140
Quality Control		NR	0.105	7.01	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

Chemist

2/18/98
Date

Received
Hobbs
OCD

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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/05/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/05/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

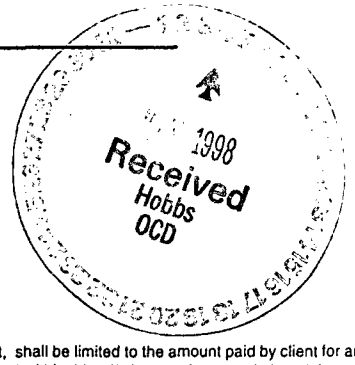
TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.103	103	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.087	87	0.100
Methyl Ethyl Ketone	200	0.055	<0.050	0.114	114	0.100
Chloroform	6.0	<0.005	<0.005	0.106	106	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.097	97	0.100
Benzene	0.5	0.009	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.112	112	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.116	116	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	111
Toluene-d8	110
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke, Ph. D.

2/5/98
Date



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CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name:	BAKER OIL TOOLS	BILL TO	PO #:
Project Manager:	BILL RUSSELL	Company:	BAKER
Address:	507 W County Road	Attn:	
City:	HOBBS State: NM Zip: 88240	Address:	P.O. Box 1626
Phone #:	505-397-3671	City:	HOBBS
Fax #:	505-393-4213	State:	NM Zip:
Project #:	WASH BAY Project Owner:	Phone #:	
Project Name:		Fax #:	
Project Location:	HOBBS		

ANALYSIS REQUEST

TCLP Chlorides

Received Hobbs OCD FEB 1998

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H 3444-1	WASH BAY	G	4		✓						✓		02/05/98	11:30

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Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By: Bill Russell	Date:	Received By: (Lab Staff)	REMARKS: COPY TO CRI
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

District I - (505) 393-6161
P. O. Box 1980
Hobbs, NM 88241-1980
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District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

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

RECEIVED
APR 23 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
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District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Baker Oil Tools 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 W County Road Hobbs	New Mexico

9. Circle One:

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

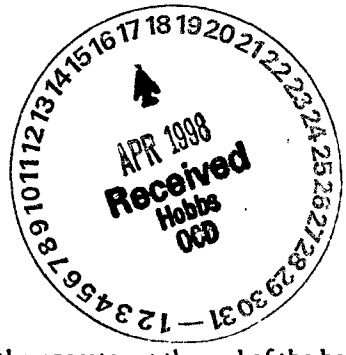
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. The waste was generated by steaming tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

04-005



Faxed in Hobbs 4/23/98

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Environmental Compliance Manager DATE: 04/14/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: ENV ENGR DATE: 4-17-98

APPROVED BY: _____ TITLE: Env. Geologist DATE: 4/23/98


APR 1998
Received
Hobbs
OCD

BAKER OIL TOOLS

FAX TRANSMITTAL MEMO

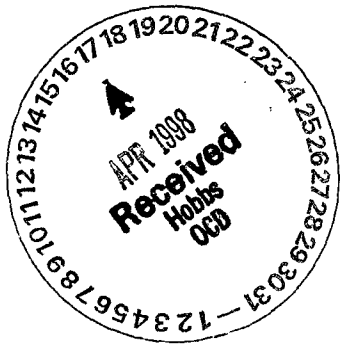
HOBBS, NEW MEXICO

Telephone: 505-397-3671 • Fax: 505-393-4213

Date:	4-20-98		
To:	Billie Charo	**From:**	Ray Dockery
Location:		**Ref:**	
Company:	CRI	**Subject:**	Sump disposal
Fax No.:	393-3615	**# pgs:(inc. this pg)**	2
Copy:			

The waste we are sending remains the same as previously tested.

Ray Dockery



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Baker Oil Tools

ADDRESS P O Box 1828 Hobbs, NM 88240

GENERATING SITE 507 West County Road Hobbs

COUNTY Lea **STATE** NM

TYPE OF WASTE Sump water

ESTIMATED VOLUME 60 bbls

GENERATING PROCESS steaming tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Rowland Trucking

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Ray Dockery
SIGNATURE

NAME Ray Dockery
PRINTED

ADDRESS P O Box 1828
Hobbs, NM 88240

DATE 4-20-98

APR 1998 Received Hobbs OCD

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/13/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/AH

TCLP METALS

LAB NUMBER	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		02/12/98	02/06/98	02/11/98	02/12/98	02/12/98	02/12/98	02/10/98	02/06/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3444-1	WASHBAY	<1	<1	<5	<0.1	<1	<1	<0.02	<0.01
Quality Control		0.095	2.358	4.945	2.025	5.026	5.006	0.0087	0.0485
True Value QC		0.100	2.500	5.000	2.000	5.000	5.000	0.0100	0.0500
% Recovery		95	94	99	101	101	100	87	97
Relative Standard Deviation		7.5	0.5	14.6	0.9	1.9	4.7	8.9	10.1
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

APR 1998 Received Hobbs OCD

2/13/98
Date

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CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

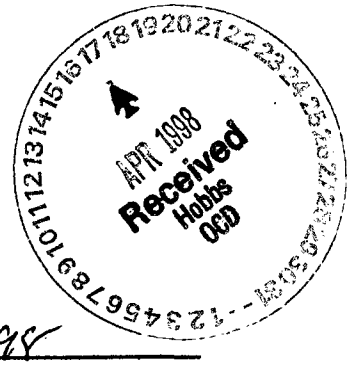
Receiving Date: 02/05/98
Reporting Date: 02/07/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/06/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.052	52	0.100
o-Cresol	200	0.011	<0.002	0.055	55	0.100
m, p-Cresol	200	0.008	<0.002	0.115	58	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.050	50	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.106	106	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.088	88	0.100
Pentachlorophenol	100	<0.008	<0.002	0.091	91	0.100

	% RECOVERY
Fluorophenol	29
Phenol-d5	29
Nitrobenzene-d5	71
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	76
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510



Burgess J. A. Cooke, Ph. D.

2/7/98
Date

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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/18/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	REACTIVITY Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		02/13/98	02/13/98	02/17/98	02/18/98
H3444-1	WASHBAY	<50	<50	7.26	>140
Quality Control		NR	0.105	7.01	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

FEB 1998 Received Hobbs OCD

Chemist

2/18/98
Date

H3444R.XLS

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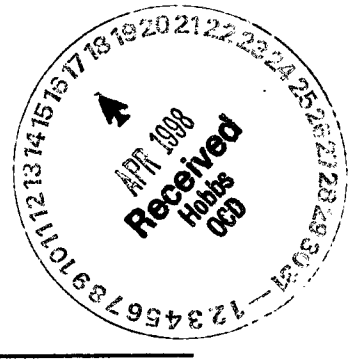
Receiving Date: 02/05/98
Reporting Date: 02/05/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/05/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.103	103	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.087	87	0.100
Methyl Ethyl Ketone	200	0.055	<0.050	0.114	114	0.100
Chloroform	6.0	<0.005	<0.005	0.106	106	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.097	97	0.100
Benzene	0.5	0.009	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.112	112	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.116	116	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	111
Toluene-d8	110
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311



Burgess J. A. Cooke, Ph. D.

2/5/98
Date

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CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name:	BAKER OIL TOOLS	BILL TO	PO #:
Project Manager:	BILL RUSSELL	Company:	BAKER
Address:	507 W County Road	Attn:	
City:	HOBBS State/VM Zip: 88240	Address:	P.O. Box 1828
Phone #:	505-397-3671	City:	HOBBS
Fax #:	505-393-4213	State:	NM Zip:
Project #:	WASH BAY Project Owner:	Phone #:	
Project Name:		Fax #:	
Project Location:	HOBBS		

ANALYSIS REQUEST

TCLP Chlorides

RECEIVED APR 1998 OCD HOBBS

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H 3444-1	WASH BAY	G	4		✓						✓		02/05/98	11:30

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Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By: Bill Russell	Date:	Received By: (Lab Staff)	REMARKS: COPY TO CRI
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

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

RECEIVED
APR 23 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Baker Oil Tools 5. Originating Site Hobbs Facility
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Rowland
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) 507 W County Road Hobbs	New Mexico

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following analytical is from the Baker Oil Tools Hobbs facility. The waste was generated by steaming tools. This material has been approved in the past. I have included a certificate of waste and a chain of custody.

04-006

APR 1998
Received
Hobbs
OCD

Printed Hobbs 4/23/98

Estimated Volume 60 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Billie Charo TITLE: Environmental Compliance Manager DATE: 04/14/98
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: _____ TITLE: Envir Engr DATE: 4-17-98

APPROVED BY: _____ TITLE: Env Geologist DATE: 4/23/98

BAKER OIL TOOLS

FAX TRANSMITTAL MEMO

HOBBS, NEW MEXICO

Telephone: 505-397-3671 • Fax: 505-393-4213

Date:	4-27-98		
To:	Billie Charo	**From:**	Ray Dockery
Location:		**Ref:**	
Company:	CRI	**Subject:**	Sump disposal
Fax No.:	393-3615	**# pgs:(inc. this pg)**	2
Copy:			

The waste we are sending remains the same as previously tested.

Ray Dockery



CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL
"AS REQUIRED BY NEW MEXICO OIL CONSERVATION DIVISION"

COMPANY/GENERATOR Baker Oil Tools

ADDRESS P O Box 1828 Hobbs, NM 88240

GENERATING SITE 507 West County Road Hobbs

COUNTY Lea **STATE** NM

TYPE OF WASTE Sump water

ESTIMATED VOLUME 60 bbls

GENERATING PROCESS steaming tools

REMARKS

NMOCD FACILITY CONTROLLED RECOVERY INC.

TRUCKING COMPANY Rowland Trucking

As a condition of acceptance for disposal, I hearby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has not been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, Section 2613.

AGENT Ray Dockery
SIGNATURE

NAME Ray Dockery
PRINTED

ADDRESS P O Box 1828

Hobbs, NM 88240

DATE 4-27-98

APR 1998 Received Hobbs OCD

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/13/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: GP/AH

TCLP METALS

LAB NUMBER	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		02/12/98	02/06/98	02/11/98	02/12/98	02/12/98	02/12/98	02/10/98	02/06/98
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H3444-1	WASHBAY	<1	<1	<5	<0.1	<1	<1	<0.02	<0.01
Quality Control		0.095	2.358	4.945	2.025	5.026	5.006	0.0087	0.0485
True Value QC		0.100	2.500	5.000	2.000	5.000	5.000	0.0100	0.0500
% Recovery		95	94	99	101	101	100	87	97
Relative Standard Deviation		7.5	0.5	14.6	0.9	1.9	4.7	8.9	10.1
METHODS: EPA 1311, 600/4-91/0		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Chemist

APR 1998 Received Hobbs OCD

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Date

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ATTN: BILL RUSSELL
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FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/07/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/06/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.008	<0.002	0.028	28	0.100
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.052	52	0.100
o-Cresol	200	0.011	<0.002	0.055	55	0.100
m, p-Cresol	200	0.008	<0.002	0.115	58	0.200
Hexachloroethane	3.00	<0.008	<0.002	0.050	50	0.100
Nitrobenzene	2.00	<0.008	<0.002	0.079	79	0.100
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.063	63	0.100
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.067	67	0.100
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.072	72	0.100
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.106	106	0.100
Hexachlorobenzene	0.130	<0.008	<0.002	0.088	88	0.100
Pentachlorophenol	100	<0.008	<0.002	0.091	91	0.100

	% RECOVERY
Fluorophenol	29
Phenol-d5	29
Nitrobenzene-d5	71
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	76
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510

APR 1998
Received
Hobbs
OCD

Burgess J. A. Cooke, Ph. D.

2/7/98
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ANALYTICAL RESULTS FOR
BAKER OIL TOOLS
ATTN: BILL RUSSELL
507 W. COUNTY ROAD
HOBBS, NM 88240
FAX TO: 505-393-4213

Receiving Date: 02/05/98
Reporting Date: 02/18/98
Project Number: NOT GIVEN
Project Name: WASH BAY
Project Location: HOBBS, NM

Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC/HM

LAB NUMBER	SAMPLE ID	REACTIVITY Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		02/13/98	02/13/98	02/17/98	02/18/98
H3444-1	WASHBAY	<50	<50	7.26	>140
Quality Control		NR	0.105	7.01	NR
True Value QC		NR	0.100	7.00	NR
% Accuracy		NR	105	100	NR
Relative Percent Difference		NR	0	0.2	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, *40 CFR 261*

APR 1998
Received
Hobbs
OCD

Chemist

2/18/98
Date

H3444R.XLS

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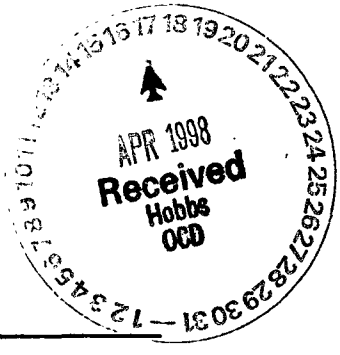
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Project Name: WASH BAY
Project Location: HOBBS, NM
Lab Number: H3444-1
Sample ID: WASH BAY

Analysis Date: 02/05/98
Sampling Date: 02/05/98
Sample Type: LIQUID
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H3444-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.103	103	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.087	87	0.100
Methyl Ethyl Ketone	200	0.055	<0.050	0.114	114	0.100
Chloroform	6.0	<0.005	<0.005	0.106	106	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.097	97	0.100
Benzene	0.5	0.009	<0.005	0.107	107	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.100	100	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.112	112	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.095	95	0.100
Chlorobenzene	100	<0.005	<0.005	0.116	116	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.112	112	0.100

	% RECOVERY
Dibromofluoromethane	111
Toluene-d8	110
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311



Burgess J. A. Cooke, Ph. D.

2/5/98
Date

PLEASE NOTE: **Liability and Damages.** **Cardinal's** liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by **Cardinal** within thirty (30) days after completion of the applicable service. In no event shall **Cardinal** be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by **Cardinal**, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page____ of____

Company Name:	BAKER OIL TOOLS	BILL TO	PO #:
Project Manager:	BILL RUSSELL	Company:	BAKER
Address:	507 W County Road	Attn:	
City:	HOBBS State: NM Zip: 88240	Address:	P.O. Box 1626
Phone #:	505-393-3671	City:	HOBBS
Fax #:	505-393-4213	State:	NM Zip:
Project #:	WASH BAY Project Owner:	Phone #:	
Project Name:		Fax #:	
Project Location:	HOBBS		

ANALYSIS REQUEST

TCLP Chlorides

Received APR 1998 OCD Hobbs

FOR LAB USE ONLY LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRES.: ACID:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME
H 3444-1	WASH BAY	G	4		✓						✓		02/05/98	11:30

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	Date:	Received By:	Phone Result ☐ Yes ☐ No Additional Fax #:
	Time:		Fax Result: ☐ Yes ☐ No
Relinquished By: Bill Russell	Date:	Received By: (Lab Staff)	REMARKS: COPY TO CRI
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No	CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division

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

RECEIVED
APR 23 1998
Environmental Bureau
Oil Conservation Division

Form C-13
Originated 8/8/

Submit Origi
Plus 1 Co
to appropri
District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ OK CW BY Leup Verbal Approval Received: Yes ☒ No ☐	4. Generator UMC
	5. Originating Site Cargile # 1
2. Management Facility Destination Controlled Recovery, Inc.	6. Transporter Sonny's
3. Address of Facility Operator P.O. Box 369 Hobbs	8. State New Mexico
7. Location of Material (Street Address or ULSTR) Lea County	UMC Cargile # 1

9. Circle One:

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

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

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

BRIEF DESCRIPTION OF MATERIAL:

The following MSDS sheets are for the UMC Cargile # 1. The material was generated by drilling mud being mixed for well control.

04-010

Received
APR 1998
Hobbs
OCD

Estimated Volume 3000 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: B. Olie Charo (Waste Management Facility Authorized Agent) TITLE: Environmental Compliance Manager DATE: 04/14/98

TYPE OR PRINT NAME: Billie Charo TELEPHONE NO. (505)393-1079

(This space for State Use)

APPROVED BY: Chris Williams TITLE: District Supervisor DATE: 4/14/98

APPROVED BY: Martyne J. Kelly TITLE: Env. Geologist DATE: 4/23/98

Baroid Drilling Fluids, Inc.
Environmental, Safety and Transportation Data Sheet

BAROID*

HEALTH HAZARD 1 FLAMABILITY 0 REACTIVITY 0
Ratings based on NFPA
'Standard system for the Identification of the Fire Hazards of Materials'

I. PRODUCT IDENTIFICATION

Supplier
BAROID DRILLING FLUIDS, INC.
Address
P.O. BOX 1675 HOUSTON, TEXAS 77251
Trade Name
BAROID
Generic Description
BARITE, BARIUM SULFATE, BARYTES

Regular Telephone No. 281/871-5900
Emergency Telephone No. 800 424-9300

CAS #7727-43-7

II. HAZARDOUS INGREDIENTS

Material or Component	%	Hazard Data
SILICA 14808-60-	2-6	LOW CONCENTRATIONS OF CRYSTALLINE SILICA (SiO2) IN THE FORM OF QUARTZ, CRISTOBALITE, AND TRIDYMITE MAY BE PRESENT (SEE SECTION V)

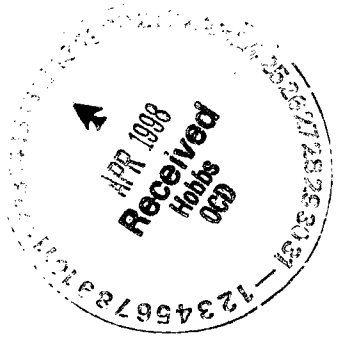
III. PHYSICAL DATA

Boiling Point (Deg F) NA	Melting Point 2901 F	Freezing Point NA
Specific Gravity (Water = 1) 4.2	Vapor Pressure (mm Hg) NA	
Vapor Density (Air = 1) NA	Solubility in water, % by Wt. LOW	
Volatiles, % by Volume NA	Evaporation Rate (Butyl Acetate = 1) NA	
Appearance and Odor WHITE TO GRAY TO TAN POWDER, ODORLESS	Density @ 20 Deg C 4.5 @ 15 C	
pH ND		

NA = Not Applicable ND = Not Determined

All information recommendations and suggestions herein concerning our product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Baroid Drilling Fluids, Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Baroid Drilling Fluids, Inc. assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.

(R) BAROID* is a Registered Trademark of Baroid Technology, Inc.



BEST Sheet BAROID Page 2

IV. FIRE AND EXPLOSION DATA

THIS PRODUCT IS NOT FLAMMABLE OR EXPLOSIVE.
EXTINGUISHING MEDIA: USE MEDIA APPLICABLE TO SURROUNDING FIRE.

V. HEALTH HAZARD INFORMATION

Carcinogenicity -SEE ROUTES OF EXPOSURE AND EFFECTS (BELOW)

Acute Oral (LD50)	Acute Dermal (LD50)	Aquatic Toxicity (LC50)
ND	ND	ND

Routes of exposure and effects
THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS. PROLONGED INHALATION OF DUST MAY RESULT IN SILICOSIS, A NONCANCEROUS LUNG DISEASE. OSHA FINAL LIMITS TABLE Z-3 MINERAL DUSTS.

SILICA: CRYSTALLINE QUARTZ (RESPIRABLE) $\frac{10\ mg/m3}{\%SiO2 + 2}$

QUARTZ (TOTAL DUST) $\frac{30\ mg/m3}{\%SiO2 + 2}$

IF CRISTOBALITE OR TRIDYMITE IS DETECTED, USE ONE HALF THE VALUE CALCULATED FROM FORMULAE FOR QUARTZ.

EYES: IRRITANT
SKIN: POTENTIAL IRRITANT

Emergency and First Aid procedures

EYE: IRRIGATE IMMEDIATELY WITH WATER. IF IRRITATION PERSISTS, CONTACT PHYSICIAN. FLUSH SKIN WITH WATER. SWALLOW: GIVE WATER AND INDUCE VOMITING. IF INHALED IN LARGE AMOUNTS MOVE TO FRESH AIR.

APR 1998 Received Hobbs OCD

BEST Sheet BAROID* Page 3

VI. REACTIVITY DATA

Conditions contributing to instability
STABLE

Incompatibility
NONE

Hazardous Decomposition Products
NONE

Conditions Contributing to Hazardous Polymerization
WILL NOT OCCUR.

VII. SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled
NORMAL HOUSEKEEPING. SWEEP UP AND SALVAGE. CAUSES SLIPPERY SURFACES WHEN WET.

Neutralizing Chemicals
NA

Waste Disposal Method
DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS

VIII. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements

MECHANICAL, GENERAL ROOM VENTILATION. USE LOCAL VENTILATION TO MAINTAIN TLV (SEE SECTION V).

Specific Personal Protective Equipment
Respiratory
USE NIOSH APPROVED MECH. FILTER RESPIRATOR
Eye
GOGGLES
Gloves
WORKING GLOVES
Other Clothing and Equipment
APRON, EYEWASH STATION



BEST Sheet BARO D# Page 4

IX. SPECIAL PRECAUTIONS

Precautionary Statements

DO NOT INGEST. AVOID INHALATION AND PROLONGED SKIN CONTACT. RECOMMENDED LABELING: FRONT PANEL: CAUTION SEE BACK PANEL FOR CAUTION BEFORE USE. BACK PANEL: CAUTION! THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS. PROLONGED INHALATION OF THE POWDER MAY RESULT IN SILICOSIS, A NONCANCEROUS LUNG DISEASE. AVOID CREATING DUSTY CONDITIONS AND USE A NIOSH APPROVED DUST RESPIRATOR.

Other Handling and Storage Requirements

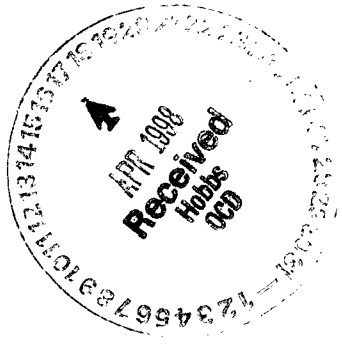
STORE IN SHELTERED AREA OR COVER FOR MOISTURE PROTECTION.

X. DEPARTMENT OF TRANSPORTATION INFORMATION

Proper Shipping Name:
NOT REGULATED AS HAZARDOUS

Hazard Class:
NOT HAZARDOUS
Hazardous Substance:
NONE
Label:
NONE REQUIRED

Placards:
NONE
Reportable quantity:
NONE
ID Number:
NONE



XI. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS

Comprehensive Environmental Response, Compensation and Liability Act of 1980, (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4.

Components present in this product which may require notification are:

Chemical	CAS #

NONE

Superfund Amendments and Reauthorization Act of 1986 Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on RQs.

Components present in this product at a level which could require reporting under the statute are:

NONE

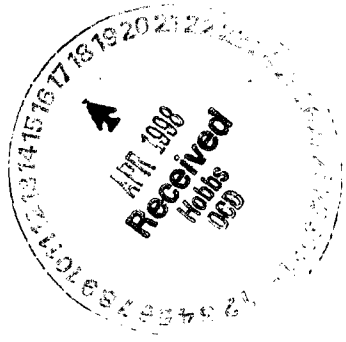
SARA requires the submission of annual reports of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

NONE

Toxic Substances Control Act (TSCA)

The ingredients of this product are on the TSCA inventory.



XII. STATE RIGHT-TO-KNOW

QUARTZ IS ON CANADIAN WHMIS (WORKPLACE HAZARDOUS MATERIAL INFORMATION SYSTEM) INGREDIENT DISCLOUSRE LIST, MASSACHUSETTS SUBSTANCE LIST, NEW JERSEY RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST AND PENNSYLVANIA HAZARDOUS SUBSTANCE LIST.



Baroid Drilling Fluids, Inc.
Environmental, Safety and Transportation Data Sheet

SALT GEL

HEALTH HAZARD 1 FLAMABILITY 0 REACTIVITY 0
Ratings based on NFPA
'Standard system for the Identification of the Fire Hazards of Materials'

I. PRODUCT IDENTIFICATION

Supplier
BAROID DRILLING FLUIDS, INC.
Address
P.O. BOX 1675 HOUSTON, TX 77251
Trade Name
SALT GELT
Generic Description
ATTAPULGITE CLAY, MAGNESIUM ALUMINUM SILICATE

Regular Telephone No. 281/871-5300
Emergency Telephone No. 800 424-9300

II. HAZARDOUS INGREDIENTS

Material or Component	%	Hazard Data
SILICA 14808-60-7	2-6	LOW CONCENTRATIONS OF CRYSTALLINE SILICA (SiO2) IN THE FORM OF QUARTZ, CRISTOBALITE AND TRIDYMITE MAY BE PRESENT (SEE SECTION V)

III. PHYSICAL DATA

Boiling Point (Deg F) NA	Melting Point ND	Freezing Point NA
Specific Gravity (Water = 1) 2.1	Vapor Pressure (mm Hg) NA	
Vapor Density (Air = 1) NA	Solubility in water, % by wt. NA	
Volatiles, % by Volume NONE	Evaporation Rate (Butyl Acetate = 1) ND	
Appearance and Odor OFF WHITE POWDER, NO ODOR	Density @ 20 Deg C ND	
pH ND		

NA = Not Applicable ND = Not Determined

All information recommendations and suggestions herein concerning our product are based upon tests and data believed to be reliable, however, it is the user's responsibility to determine the safety, toxicity, and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Baroid Drilling Fluids, Inc. as to the effects of such use, the results to be obtained, or the safety and toxicity of the product nor does Baroid Drilling Fluids, Inc. assume any liability arising out of use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations.



IV. FIRE AND EXPLOSION DATA

NO FIRE OR EXPLOSION HAZARD. SALT GEL WILL NOT SUPPORT COMBUSTION.
FIRE EXTINGUISHING MEDIA: WATER
SPECIAL FIRE FIGHTING PROCEDURES: NONE

V. HEALTH HAZARD INFORMATION

Carcinogenicity -SEE ROUTES OF EXPOSURE AND EFFECTS (BELOW)

Acute Oral (LD50)	Acute Dermal (LD50)	Aquatic Toxicity (LC50)
ND	ND	ND

Routes of exposure and effects
THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS. NUISANCE DUST TLV=10mg/m3. OSHA PEL: CLASSIFIED AS NUISANCE DUST WHEN LESS THAN 1% CRYSTALLINE SILICA IS PRESENT, IF GREATER THAN 1% CRYSTALLINE SILICA, THEN EXPOSURES SHALL NOT EXCEED AN 8-HOUR TIME WEIGHTED AVERAGE LIMIT AS STATED IN 29 CFR 1910.1000 TABLE Z-1-A FOR AIR CONTAMINANTS, SPECIFICALLY; SILICA; CRYSTALLINE QUARTZ (RESPIRABLE) 0.1 mg/m3.

IRRITANT TO EYES, NOSE, THROAT AND LUNGS.

Emergency and First Aid procedures

RINSE ALL CONTACTED AREAS AFTER USE.

APR 1998 Received Hobbs OCD

VI. REACTIVITY DATA

Conditions contributing to instability
STABLE

Incompatibility
NONE

Hazardous Decomposition Products
NONE

Conditions Contributing to Hazardous Polymerization
WILL NOT OCCUR

VII. SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled
VACUUM UP, SALVAGE USEABLE MATERIAL. AVOID CREATING DUSTY CONDITION.

Neutralizing Chemicals
NA

Waste Disposal Method
DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

VIII. INDUSTRIAL HYGIENE CONTROL MEASURES

Ventilation Requirements
MECHANICAL, GENERAL ROOM VENTILATION. USE LOCAL VENTILATION TO MAINTAIN TLV (SEE SECTION V)

Specific Personal Protective Equipment
Respiratory
USE A NIOSH APPROVED MECHANICAL FILTER RESPIRATOR FOR NONTOXIC DUSTS.
Eye
GOGGLES
Gloves
WORK GLOVES
Other Clothing and Equipment
EYEWASH STATION, APRON

APR 1998
Received
Hobbs
OCD

IX. SPECIAL PRECAUTIONS

Precautionary Statements
AVOID PROLONGED INHALATION. RECOMMENDED LABELING: FRONT PANEL - CAUTION SEE BACK PANEL FOR CAUTION BEFORE USE. BACK PANEL - CAUTION! THIS PRODUCT CONTAINS FREE CRYSTALLINE SILICA WHICH ACCORDING TO THE IARC HAS EXHIBITED LIMITED EVIDENCE OF CARCINOGENICITY IN HUMANS. PROLONGED INHALATION OF THE POWDER MAY RESULT IN SILICOSIS. A NONCANCEROUS LUNG DISEASE. AVOID CREATING DUSTY CONDITIONS AND USE A NIOSH APPROVED DUST RESPIRATOR.

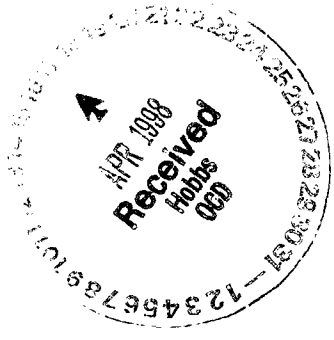
Other Handling and Storage Requirements
STORE IN SHELTERED AREA OR COVER FOR MOISTURE PROTECTION.

X. DEPARTMENT OF TRANSPORTATION INFORMATION

Proper Shipping Name:
NOT REGULATED

Hazard Class:
NONE
Hazardous Substance:
NONE
Label:
NONE

Placards:
NONE
Reportable quantity:
NONE
ID Number:
NONE



XI. REGULATORY INFORMATION

STATUS ON SUBSTANCE LISTS

Comprehensive Environmental Response, Compensation and Liability Act of 1980, (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4.

Components present in this product which may require notification are:

Chemical	CAS #

NONE

Superfund Amendments and Reauthorization Act of 1986 Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on RQs.

Components present in this product at a level which could require reporting under the statute are:

NONE

SARA requires the submission of annual reports of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

NONE

Toxic Substances Control Act (TSCA)

The ingredients of this product are on the TSCA inventory.

Prepared By: Baroid Drilling Fluids, Inc.
Environmental Services

Date:
03/26/97

APR 1998 Received Hobbs OCD

XII. STATE RIGHT-TO-KNOW

QUARTZ IS ON CANADIAN WHMIS (WORKPLACE HAZARDOUS MATERIAL INFORMATION SYSTEM) INGREDIENT DISCLOSUR ELIST, MASSACHUSETTS SUBSTANCE LIST, NEW JERSEY RIGHT TO KNOW HAZARDOUS SUBSTANCE LIST AND PENNSYLVANIA HAZARDOUS SUBSTANCE LIST.

APR 1998 Received Hobbs OCD