

NM1 - 3

C-138

YEAR(S):

2001 - 2000

SUNDANCE SERVICES INC.
P.O. BOX 1737
EUNICE, NM 88231
505-394-2511
505-394-2590 FAX

Run Ignitability test

5-24-01
3:45

FACSIMILE TRANSMITTAL SHEET

TO: <u>Martyn</u>	FROM: <u>Donna</u>
COMPANY: <u>OCD</u>	DATE: <u>5-24-01</u>
FAX NUMBER: <u>476-3462</u>	TOTAL NO. OF PAGES INCLUDING COVER: <u>22</u>
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE:	YOUR REFERENCE NUMBER:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

05/24/2001 01:49
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

5053942590

SUNDANCE SERVICE INC

PAGE 02
Originated 8/8/

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

Submit Origin
Plus 1 Co
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Exxon/Nobile
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site J.L. Greenwood #12
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318, State NEW MEXICO	
7. Location of Material (Street Address or ULSTR)	Sec 9 T22S R37E
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 is for gel water mixed on location for a frac job that was not performed. This material is needed to be hauled off location for disposal. I have included a certifixate of status. Sundance would like approval to accept this material into our Parabo disposal facility

Note: a verbal approval would be appreciated.

Estimated Volume 1500 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR. DATE: 5-23-01
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____
APPROVED BY: _____ TITLE: _____ DATE: _____

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: J.L. Greenwood #12
SOURCE: Unused gel water
DISPOSAL LOCATION: SUNDANCE SERVICES 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 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 Exxon/Mobile
concur with the status of the waste from the subject site.

Name - Timothy R. Reep
Title/Agency Operations Compliance Tech.
Address P.O. Box 1760
Denver City Texas 79323
Signature Timothy R. Reep
Date 5-23-01

LGC-IV W/ DIESEL - BULK

PAGE 1

MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 05-21-01
REVISED DATE 04-07-99

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

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

CHEMICAL CODE: LGC-IV W/ DIESEL - BULK PART NUMBER: 516004830
PKG QTY: CARGO TANK APPLICATION: CONCENTRATE
SERVICE USED: FRACTURING

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

COMPONENT+ + + + +	PERCENT	TLV	PEL
DIESEL	31-60 %	NOT EST	NOT EST
GUAR GUM DERIVATIVE	31-60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	YELLOWISH LIQUID, GEL
ODOR	DIESEL
SPECIFIC GRAVITY (H2O=1)	1.035
BULK DENSITY	8.62 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	NIL
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	100
EVAPORATION RATE (BUTYL ACETATE-1)	<1
VAPOR DENSITY	5-6
VAPOR PRESSURE (MMHG)	N/D
BOILING POINT (760 MMHG)	300 P / 148 C
FOUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA (704) RATING:
HEALTH 2 FLAMMABILITY 2 REACTIVITY 1 SPECIAL NONE
FLASH POINT 150 F / 65 C FLASH MTHD PMCC
AUTOIGNITION TEMPERATURE ND F / ND C
FLAMMABLE LIMITS (OZ. PER CU. FT.) LOWER N/D UPPER N/D

***** EXTINGUISHING MEDIA: *****

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES:

USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING

APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND

PN: 516004830

PAGE 2

INJURIES.

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

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

CALIFORNIA PROPOSITION 65:

PRODUCT OR PRODUCT COMPONENTS ARE 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 EYE IRRITATION.

SKIN:

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

INHALATION:

HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR POSSIBLY UNCONSCIOUSNESS.

VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

IRRITATION OF THE MOUTH AND THROAT, ABDOMINAL PAIN, NAUSEA AND VOMITING, DIARRHEA, AND COLLAPSE MAY RESULT FROM INGESTION.

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

CHRONIC EFFECTS:

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

OTHER SYMPTOMS AFFECTED:

BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN EXISTING DERMATITIS.

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

EYE:

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

SKIN:

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

INHALATION:

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

INGESTION:

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

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

PN: 516004830

PAGE 3

STABILITY: STABLE

CONDITIONS TO AVOID:

HEAT, SPARKS AND OPEN FLAME.

INCOMPATIBILITY (MATERIALS TO AVOID):

STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:

NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.

HAZARD POLYMERIZATION: WON'T OCCUR

CONDITIONS TO AVOID:

NOT APPLICABLE.

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE. REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.

WASTE DISPOSAL METHOD:

GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):

ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.

IN OXYGEN DEFICIENT AREAS OR CONFINED SPACES, POSITIVE PRESSURE SUPPLIED-AIR RESPIRATOR WITH 5-MINUTE AUXILIARY BOTTLE, OR PRESSURE-DEMAND OR POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS.

VENTILATION:

USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.

LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR COMBUSTIBLE ATMOSPHERES (NEC CLASS II EQUIPMENT).

PROTECTIVE GLOVES:

IMPERVIOUS RUBBER GLOVES.

EYE PROTECTION:

WEAR GOGGLES AND/OR FACE SHIELD. PROVIDE EYEWASH AND QUICK DRENCH SYSTEM.

OTHER PROTECTIVE EQUIPMENT:

RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

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

PRECAUTIONARY LABELING LGC-IV W/ DIESEL - BULK

516.004830

WARNING!

MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.
MAY CAUSE IRRITATION TO THE EYES, SKIN OR RESPIRATORY SYSTEM.

COMBUSTIBLE!

FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

OTHER HANDLING AND STORAGE CONDITIONS:

STORE AWAY FROM OXIDIZERS.

KEEP FROM HEAT, SPARKS, AND OPEN FLAME.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:

EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN
PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST
OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

PN: 516004830

PAGE 4

DOT SHIPPING DESCRIPTION:

DIESEL FUEL SOLUTION - COMBUSTIBLE LIQUID - NA1993 - III

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

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

FIRE: Y PRESSURE: N REACTIVE: N ACUTE (IMMEDIATE): Y

CHRONIC (DELAYED): Y MIXTURE OR PURE MATERIAL: MIX

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

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

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)
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 MEET THE CRITERIA OF A HAZARDOUS
WASTE AS DEFINED BY US EPA BECAUSE OF:

IGNITABILITY

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE
DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM
VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS
GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN
BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE
DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO
SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY
SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR
CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS

SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

CLAYFIX-II MATERIAL - POLY HAL-TANK

PAGE 1

MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 05-18-01
REVISED DATE 04-07-99

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

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

CHEMICAL CODE: CLAYFIX-II MATERIAL - POLY HAL-TANK PART NUMBER: 516004720
PKG QTY: BULK APPLICATION: TEMPORARY CLAY STABILIZER
SERVICE USED: FRACTURING & SAND CONTR.

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

COMPONENT+ + + + +	PERCENT	TLV	PEL
ALKYLATED QUATERNARY CHLORIDE	31-60 %	NOT EST	NOT EST

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

PROPERTY	MEASUREMENT
----------	-------------

APPEARANCE	CLEAR, LIGHT AMBER LIQUID
ODOR	SLIGHT AMINE
SPECIFIC GRAVITY (H2O=1)	1.020
BULK DENSITY	8.50 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	SOLUBLE
BIODEGRADABILITY	SLOWLY
PERCENT VOLATILES	45-50
EVAPORATION RATE (BUTYL ACETATE=1)	N/D
VAPOR DENSITY	< 1
VAPOR PRESSURE (MMHG)	25.00
BOILING POINT (760 MMHG)	/216 F / 102 C
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA (704) RATING:

HEALTH 3 FLAMMABILITY 1 REACTIVITY 1 SPECIAL NONE

FLASH POINT NONE

AUTOIGNITION TEMPERATURE

FLAMMABLE LIMITS (% BY VOLUME) LOWER ND F / ND C UPPER N/D

***** EXTINGUISHING MEDIA:

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.

SPECIAL FIRE FIGHTING PROCEDURES:

USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.

FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING
APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

LOSURF-300 NONIONIC SURFACTANT - HAL-TANK

PAGE 1

MATERIAL SAFETY DATA SHEET

HALLIBURTON ENERGY SERVICES

DUNCAN, OKLAHOMA 73536

DATE: 05-18-01

REVISED DATE 04-07-99

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

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

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

CHEMICAL CODE: LOSURF-300 NONIONIC SURFACTANT - HAL-TANK PART NUMBER: 516001790

PKG QTY: 330 GALLON TANK APPLICATION: NONEMULSIFIER

SERVICE USED: STIMULATION

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

COMPONENT+ + + + +	PERCENT	TLV	PEL
ISOPROPANOL	31-60 %	400 PPM	400 PPM
AROMATIC SOLVENT	11-30 %	100 PPM	100 PPM
PROPYLENE OXIDE	TRACE %	20 PPM	20 PPM
NAPHTHALENE	1-10 %	10 PPM	10 PPM

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

PROPERTY	MEASUREMENT
APPEARANCE	AMBER LIQUID
ODOR	SOLVENT
SPECIFIC GRAVITY (H2O=1)	.910
BULK DENSITY	7.59 LB/GAL
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	DISPERSES
BIODEGRADABILITY	N/D
PERCENT VOLATILES	46-50
EVAPORATION RATE (BUTYL ACETATE=1)	N/D
VAPOR DENSITY	N/D
VAPOR PRESSURE (MMHG)	33.00
BOILING POINT (760 MMHG)	N/D
POUR POINT	N/D
FREEZE POINT	N/D
SOLUBILITY IN SEAWATER	NOT EVALUATED
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NFPA (704) RATING:

HEALTH 1 FLAMMABILITY 4 REACTIVITY 0 SPECIAL NONE

FLASH POINT 63 F / 17 C FLASH MTHD PMCC

AUTOIGNITION TEMPERATURE ND F / ND C

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:

UNUSUAL FIRE AND EXPLOSION HAZARDS:
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON MONOXIDE AND NITROGEN OXIDES.
HEAT OF A FIRE MAY PRODUCE HYDROCHLORIC ACID.

PN: 516004720 PAGE 2

***** 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: ECOTOXICITY:
MYSIDOPSIS BAHIA: 96-HOUR 10.5 PPM
TOX ORAL-RAT MALE LD50: 220 MG/KG
TOX ORAL-RAT FEMALE LD50: 145 MG/KG

PRODUCT TLV: NOT ESTABLISHED

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

ROUTES OF EXPOSURE:
EYE OR SKIN CONTACT, INHALATION.
EYE:
CONCENTRATED SOLUTIONS MAY CAUSE SEVERE BURNS.
SKIN:
CONTACT MAY CAUSE SKIN IRRITATION.
INHALATION:
MAY BE IRRITATING.
INGESTION:
MAY BE FATAL IF SWALLOWED.
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. BREATHING OF VAPOR AND/OR MISTS MAY AGGRAVATE ASTHMA
AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.

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

EYE:
IMMEDIATELY FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. IF
IRRITATION PERSISTS, SEEK PROMPT MEDICAL ATTENTION.
SKIN:
PROMPTLY WASH SKIN WITH SOAP AND WATER. IF IRRITATION DEVELOPS, SEEK MEDICAL
ATTENTION.
INHALATION:
REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION,
PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
SEEK PROMPT MEDICAL ATTENTION.
INGESTION:
GIVE UP TO TWO (2) QUARTS OF WATER AND INDUCE VOMITING. DO NOT GIVE ANYTHING
BY MOUTH IF PERSON IS DROWSY, UNCONSCIOUS. OR HAS NO GAG REFLEX. SEEK
PROMPT MEDICAL ATTENTION OR CALL THE POISON CONTROL CENTER (800) 441-0040.

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

STABILITY: STABLE

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:

PN: 516004930

PAGE 3

OXIDES OF SULFUR AND NITROGEN AND HYDROGEN CHLORIDE.

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:

DIKE AND ABSORB SPILL USING HYPOCHLORITE SOLUTION* IN AN INERT MATERIAL AND TRANSFER TO A SUITABLE CONTAINER. *FORMULATION: 8 LBS. CALCIUM HYPOCHLORITE 5 LBS. SODIUM HYDROXIDE AND 77 LBS. WATER. SODIUM HYDROXIDE MUST BE ADDED TO MAINTAIN ALKALINITY AND PREVENT THE EVOLUTION OF CHLORINE GAS.

WASTE DISPOSAL METHOD:

GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):

ORGANIC VAPOR CHEMICAL CARTRIDGE RESPIRATOR WITH A DUST-MIST FILTER.

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 BE-5 MICROBIOCIDES

516.004930

DANGER!

MAY CAUSE SEVERE EYE AND SKIN BURNS.

FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.

LABEL IN ACCORDANCE WITH FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT REQUIREMENTS.

EPA REGISTRATION NUMBER: 10707-44-40153

EPA EST. NUMBER: 10707-TX-008

OTHER HANDLING AND STORAGE CONDITIONS:

STORE AWAY FROM OXIDIZERS.

STORE IN A COOL WELL VENTILATED LOCATION.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

AVOID BREATHING VAPORS.

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

DOT SHIPPING DESCRIPTION:

TOXIC LIQUID, ORGANIC, N.O.S. - 5.1 - UN2810 - III
(CONTAINS TETRAMETHYLAMMONIUM CHLORIDE)

***** 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

PN: 516004720

PAGE 4

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

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 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.

USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.
FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING
APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
MAY BE IGNITED BY HEAT, SPARKS, OR FLAMES. FIGHT FIRE FROM A SAFE DISTANCE

PN: 516001790

PAGE 2

AND FROM A PROTECTED LOCATION. HEAT MAY BUILD PRESSURE AND RUPTURE CLOSED
CONTAINERS, SPREADING THE FIRE AND INCREASING THE RISK OF BURNS AND
INJURIES.
INCOMPLETE THERMAL DECOMPOSITION MAY PRODUCE CARBON DIOXIDE, CARBON
MONOXIDE AND NITROGEN OXIDES.

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

CALIFORNIA PROPOSITION 65:
PRODUCT OR PRODUCT COMPONENTS ARE REGULATED UNDER CALIF. PROPOSITION 65.

CARCINOGENIC DETERMINATION:
PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: AQU TLM96: 3.3-10 PPM(BROWN SHRIMP)

PRODUCT TLV: NOT ESTABLISHED

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

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

EYE:

MAY CAUSE EYE IRRITATION.

SKIN:

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

INHALATION:

HIGH CONCENTRATIONS MAY CAUSE CENTRAL NERVOUS SYSTEM DEPRESSION. THIS MAY
BE EVIDENCED BY GIDDINESS, HEADACHES, DIZZINESS, NAUSEA, VOMITING OR
POSSIBLY UNCONSCIOUSNESS.

VAPORS, MIST OR SPRAY MAY CAUSE IRRITATION.

INGESTION:

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

CHRONIC EFFECTS:

CHRONIC OVEREXPOSURE MAY CAUSE LIVER AND KIDNEY DISORDERS.

OTHER SYMPTOMS AFFECTED:

BECAUSE OF ITS IRRITATING PROPERTIES, THIS MATERIAL MAY AGGRAVATE AN
EXISTING DERMATITIS. BREATHING OF VAPOR AND/OR MISTS MAY AGGRAVATE ASTHMA
AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.

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

EYE:

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

SKIN:

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:

NO. 5053942590 11-05-01 11:05PM HALLIBURTON

CONDITIONS TO AVOID:

NOT APPLICABLE.

INCOMPATIBILITY (MATERIALS TO AVOID):

STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:

NITROGEN OXIDES, CARBON DIOXIDE AND/OR CARBON MONOXIDE.
HYDROGEN CHLORIDE.

HAZARD POLYMERIZATION: WON'T OCCUR

CONDITIONS TO AVOID:

NOT APPLICABLE.

PN: 516004720

PAGE 3

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AND STOP LEAK WHERE SAFE. CONTAIN
AND ABSORB SPILL WITH AN INERT MATERIAL. SCOOP UP AND REMOVE.

WASTE DISPOSAL METHOD:

PRODUCT SHOULD BE DISPOSED OF IN ACCORDANCE TO FEDERAL, STATE, AND LOCAL
GOVERNMENT REGULATIONS.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):

ORGANIC VAPOR/ACID GAS CARTRIDGE RESPIRATOR WITH A FULL FACEPIECE AND A
DUST-MIST FILTER.

VENTILATION:

USE ONLY WITH ADEQUATE VENTILATION.

PROTECTIVE GLOVES:

BUTYL GLOVES.

EYE PROTECTION:

GOGGLES AND/OR FACE SHIELD.

THE AVAILABILITY OF AN EYE WASH FOUNTAIN AND SAFETY SHOWER IS RECOMMENDED.

OTHER PROTECTIVE EQUIPMENT:

RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

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

PRECAUTIONARY LABELING CLAYFIX-II MATERIAL - POLY HAL-TANK 516.004720

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 AWAY FROM OXIDIZERS.

STORE IN A COOL WELL VENTILATED LOCATION.

KEEP CONTAINER CLOSED WHEN NOT IN USE.

AVOID CONTACT WITH SKIN, EYES AND CLOTHING.

AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:

IF CONTAINER RETAINS PRODUCT RESIDUES, LABEL PRECAUTIONS MUST BE OBSERVED.

STORE CONTAINER WITH CLOSURES IN PLACE. OFFER EMPTY CONTAINER TO RECONDI-

TIONOR OR RECYCLER FOR RECONDITIONING OR DISPOSAL. ENSURE RECONDITIONER

OR RECYCLER IS AWARE OF THE PROPERTIES OF THE CONTENTS.

SPECIAL PRECAUTIONS:

KEEP AWAY FROM FOOD.

PRODUCT HAS A SHELF LIFE OF 24 MONTHS.

FOR PRECAUTIONARY STATEMENTS, REFER TO SECTIONS IV-VIII.
OTHER HANDLING AND STORAGE CONDITIONS:

STORE AWAY FROM OXIDIZERS.
KEEP FROM HEAT, SPARKS, AND OPEN FLAME.
KEEP CONTAINER CLOSED WHEN NOT IN USE.
AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
AVOID BREATHING VAPORS.

CONTAINER DISPOSITION:

EMPTY CONTAINER COMPLETELY. TRANSPORT CONTAINER WITH ALL CLOSURES IN PLACE. RETURN FOR REUSE OR DISPOSE IN A SANITARY LANDFILL BY FIRST OBTAINING LANDFILL OPERATOR'S AUTHORIZATION.

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

DOT SHIPPING DESCRIPTION:

FLAMMABLE LIQUID, N.O.S. - 3 - UN1993 - II
(CONTAINS ISOPROPANOL)

PN: 516001790

PAGE 4

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

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

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

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

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

D. EPA - SARA TITLE III, 40 CFR 372 (LIST OF TOXIC CHEMICALS)

COMPONENT NAME	CAS-REG-NO	PCT
ISOPROPANOL	67-63-0	31-60 %
PROPYLENE OXIDE	75-56-9	TRACE %
NAPHTHALENE	91-20-3	1-10 %

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 MEET THE CRITERIA OF A HAZARDOUS WASTE AS DEFINED BY US EPA BECAUSE OF:

IGNITABILITY

THE INFORMATION WHICH IS CONTAINED IN THIS DOCUMENT IS BASED UPON AVAILABLE DATA AND BELIEVED TO BE CORRECT. HOWEVER, AS SUCH AS IT HAS BEEN OBTAINED FROM VARIOUS SOURCES, INCLUDING THE MANUFACTURER AND INDEPENDENT LABORATORIES, IT IS GIVEN WITHOUT WARRANTY OR REPRESENTATION THAT IT IS COMPLETE, ACCURATE AND CAN BE RELIED UPON. HALLIBURTON HAS NOT ATTEMPTED TO CONCEAL IN ANY WAY THE DELETERIOUS ASPECTS OF THE PRODUCT LISTED HEREIN, BUT MAKES NO WARRANTY AS TO SUCH. FURTHER, AS HALLIBURTON CANNOT ANTICIPATE NOR CONTROL THE MANY SITUATIONS IN WHICH THE LISTED PRODUCT OR THIS INFORMATION MAY BE USED BY OUR

CUSTOMER, THERE IS NO GUARANTEE THAT THE HEALTH AND SAFETY PRECAUTIONS SUGGESTED WILL BE PROPER UNDER ALL CONDITIONS. IT IS THE SOLE RESPONSIBILITY OF EACH USER OF THE LISTED PRODUCT TO DETERMINE AND COMPLY WITH THE REQUIREMENTS OF ALL APPLICABLE LAWS AND REGULATIONS REGARDING ITS USE OR DISPOSAL. THIS INFORMATION IS GIVEN SOLELY FOR THE PURPOSES OF HEALTH AND SAFETY TO PERSONS AND PROPERTY. ANY OTHER USE OF THIS INFORMATION IS EXPRESSLY PROHIBITED. HEALTH, SAFETY AND ENVIRONMENT DEPARTMENT, HALLIBURTON ENERGY SERVICES.

BE-5 MICROBIOCIDE

PAGE 1

MATERIAL SAFETY DATA SHEET

HALLIBURTON ENERGY SERVICES

DUNCAN, OKLAHOMA 73536

DATE: 05-18-01

REVISED DATE 04-07-99

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

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

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

CHEMICAL CODE: BE-5 MICROBIOCIDE

PART NUMBER: 516004930

PKG QTY: 36 LB BOX

APPLICATION: MICROBIOCIDE

SERVICE USED: FRACTURING

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

COMPONENT	PERCENT	TLV	PEL
5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE	1-10 %	0.1 MG/M3	NOT EST
2-METHYL-4-ISOTHIAZOLIN-3-ONE	1-10 %	NOT EST	NOT EST
MAGNESIUM CHLORIDE	1-10 %	NOT EST	NOT EST
DIATOMACEOUS EARTH	31-60 %	10 MG/M3 (TTWA 6 MG/M3)	
SILICA, CRYSTALLINE--QUARTZ	1-10 %	0.1 MG/M3	0.1 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	LIGHT GREEN TO YELLOW SOLID
ODOR	MILD
SPECIFIC GRAVITY (H2O=1)	.720
BULK DENSITY	5.59 LB/CU.FT.
PH	NOT DETERMINED
SOLUBILITY IN WATER AT 20 DEG C. GMS/100ML H2O	DISPERSES
BIODEGRADABILITY	N/D
PERCENT VOLATILES	N/A
EVAPORATION RATE (BUTYL ACETATE=1)	N/A
VAPOR DENSITY	>1
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)	N/D

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

NFPA (704) RATING:

HEALTH 3

FLAMMABILITY 1

REACTIVITY 0

SPECIAL NONE

FLASH POINT

NONE

AUTOIGNITION TEMPERATURE

ND F / ND C

FLAMMABLE LIMITS (OZ. PER CU. FT.)

LOWER N/A

UPPER N/A

EXTINGUISHING MEDIA:

USE WATER SPRAY, FOAM, DRY CHEMICAL, OR CARBON DIOXIDE.
SPECIAL FIRE FIGHTING PROCEDURES:
USE WATER SPRAY TO COOL FIRE-EXPOSED SURFACES.
FULL PROTECTIVE CLOTHING AND NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING
APPARATUS REQUIRED FOR FIRE FIGHTING PERSONNEL.

PN: 516004930

PAGE 2

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 : NTP, AND IARC

PRODUCT TOXICITY DATA: NOT DETERMINED

PRODUCT TLV: NOT ESTABLISHED

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

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

EYE:

CONTACT WILL PRODUCE SEVERE IRRITATION OR BURNS AND, IF NOT IMMEDIATELY
REMOVED, MAY LEAD TO PERMANENT EYE DAMAGE.

SKIN:

CONTACT CAUSES SEVERE IRRITATION OR BURNS WITH POSSIBLE IN-DEPTH INJURY.

INHALATION:

MISTS, AEROSOLS OR VERY HIGH VAPOR CONCENTRATIONS WILL PRODUCE INTENSE EYE
NOSE AND RESPIRATORY IRRITATION AND MAY RESULT IN LUNG DAMAGE. PROLONGED
EXPOSURE MAY RESULT IN CHEMICAL PNEUMONITIS AND, IN EXTREME CASES, PULMONARY
EDEMA (FILLING OF THE LUNGS WITH FLUIDS).

INGESTION:

CAUSES SEVERE IRRITATION OR BURNS TO THE MOUTH AND GASTROINTESTINAL TRACT.
IN EXTREME CASES MAY CAUSE KIDNEY AND LIVER DAMAGE.

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. BREATHING OF VAPOR AND/OR MISTS MAY AGGRAVATE ASTHMA
AND INFLAMMATORY OR FIBROTIC PULMONARY DISEASE.

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

EYE:

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

SKIN:

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.

NOTES: 1. 10-91-3

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

INGESTION:

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

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

STABILITY: STABLE

PN: 516001790

PAGE 3

CONDITIONS TO AVOID:

HEAT, SPARKS AND OPEN FLAME.

INCOMPATIBILITY (MATERIALS TO AVOID):

STRONG OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON MONOXIDE AND/OR CARBON DIOXIDE.

HAZARD POLYMERIZATION: WON'T OCCUR**CONDITIONS TO AVOID:**

NOT APPLICABLE.

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

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

USE PROTECTIVE EQUIPMENT. ISOLATE SPILL AREA AND STOP LEAK WHERE SAFE.

REMOVE IGNITION SOURCES. CONTAIN AND ABSORB SPILL WITH SAND OR OTHER INERT MATERIAL. SCOOP OR SWEEP UP USING NON-SPARKING TOOLS. IN ENCLOSED AREAS, WEAR SELF-CONTAINED BREATHING APPARATUS.

WASTE DISPOSAL METHOD:

GET APPROVAL FROM HAZARDOUS WASTE DISPOSAL SITE AUTHORIZED UNDER EPA-RCRA SUBTITLE C OR STATE EQUIVALENT. SHIP TO SITE.

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

RESPIRATORY PROTECTION (USE NIOSH/MSHA APPROVED EQUIPMENT):

ORGANIC VAPOR CARTRIDGE RESPIRATOR WITH A FULL FACEPIECE.

VENTILATION:

USE ONLY WITH ADEQUATE VENTILATION. LOCAL EXHAUST VENTILATION SHOULD BE USED IN AREAS WITHOUT GOOD CROSS VENTILATION.

LOCAL EXHAUST VENTILATION MUST BE DESIGNED FOR EXPLOSIVE ATMOSPHERES (NEC CLASS I EQUIPMENT).

PROTECTIVE GLOVES:

IMPERVIOUS RUBBER GLOVES.

EYE PROTECTION:

GOGGLES AND/OR FACE SHIELD.

OTHER PROTECTIVE EQUIPMENT:

RUBBER APRON TO PREVENT DIRECT SKIN CONTACT.

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

PRECAUTIONARY LABELING LOSURF-300 NONIONIC SURFACTANT - HAL-TANK516.001790

WARNING!

MAY CAUSE HEADACHE, DIZZINESS AND OTHER CENTRAL NERVOUS SYSTEM EFFECTS.

MAY CAUSE EYE IRRITATION.

MAY CAUSE DEFATTING OF SKIN WHICH MAY LEAD TO IRRITATION OR DERMATITIS.

FLAMMABLE!

TRIPLE RINSE, REUSING RINSATE AS PRODUCT. OFFER CONTAINER FOR RECYCLING OR RECONDITIONING, OR PUNCTURE AND DISPOSE OF IN A SANITARY LANDFILL.

CORROSIVE SOLID, TOXIC, N.O.S. - 8 - UN2923 - II
(5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE)

8-18-01 1:05PM; MALLIBURTON

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

NOV 17 2000

Environmental Bureau
Oil Conservation Division

Submitted
Plus 1
to apprc
District

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Levelland T
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88231	8. State NEW MEXICO
7. Location of Material (Street Address or ULSTR) West Hwy 114 Levelland , 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 MSDS sheets are for Dresser Oil Tools (Halliburton) Levelland Texas. This waste water is generated from the washing of oilfield tools. The tools are washed in Safety-Kleen non-hazardous solution. I have attached all MSDS sheets for all soap that is used to wash these tools. Please review to see if this waste would be allowed into our Parabo Facility.

Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 10-20-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Engineer Specialist DATE: 11/13/00
APPROVED BY: Monty J. Kelly TITLE: Environmental Geologist DATE: 11/17/00

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

COMPANY / GENERATOR Halliburton Energy Service,ADDRESS Hwy 114, Loveland, TXGENERATING SITE Same

COUNTY _____ STATE _____

TYPE OF WASTE Waste WaterESTIMATED VOLUME Approx 125 BBLsGENERATING PROCESS Water from washing of
oil field tools.REMARKS Test Results on fileNMOCD FACILITY SundanceTRUCKING COMPANY Chappell Services

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 261.3.

AGENT [Signature]

SIGNATURE

NAME Scott Nelson

PRINTED

ADDRESS 5801 Lovington HwyHobbs NM 88240DATE 10-20-00

Environmental Lab of Texas, Inc. 12609 West 120 East Odessa, Texas 79763

(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager:

Scott Nelson

Phone #:

FAX #:

Company Name & Address:

Haltom City

Project Name:

Project Location:

D. H. Hols

Lubbock, TX

Sample Signature:

Hwy 114

Palmer Field

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX					PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	OTHER	HCL	HNO3	ICE	NONE	OTHER	DATE	TIME	
23790	Outside Tent.	1	5												2-25-00	2:45
		3														

ANALYSIS REQUEST	
BTEX 8020/5030	
TPH 418.1	
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	✓

Revised by:

Date:

Time:

Revised by:

REMARKS

Revised by:

Date:

Time:

Revised by:

Revised by:

Date:

Time:

Revised by Laboratory:

L. C. Hols

2-25-00

17:00

C. H. Kent

Halliburton Energy Services
P.O. Box 128
W. Highway 114
Levelland, Tx 79336

02 February 2000

To: Sundance Services
1431 Maine
Eunice, NM 88240

Re: Waste Water, Levelland Tx.

Halliburton Energy Services, formerly Dresser Oil Tools in Levelland Tx is currently seeking approval for disposal of our waste water from washing of oil field tools. The tools are washed in Safety-Kleen non-hazardous solution when returned from the field. Tools are then rinsed and cleaned with a pressure washer. The waste water then flows through an oil/water skimmer, ending up in an 5000 gallon open top holding tank. I have attached all MSDS sheets pertaining to Safety Kleen solvent, grease and pipe thread lubricator. Please review this request and advise on any testing that might be needed, if any. If you have any questions, please call Steve Bailey at 505-392-0701.

Stephen W. Bailey
Shared Services Supervisor
Halliburton Energy Services
5801 Lovington Hwy
Hobbs, NM 88240
505-392-0701



ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
6801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7082

Sample Type: Water
Sample Condition: Intact/iced/HCl
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 02/28/00

ELT#	FIELD CODE	TPH mg/L
------	------------	-------------

23790	Outside Tank	7
-------	--------------	---

QUALITY CONTROL
TRUE VALUE
% PRECISION
BLANK

267
360
102
51

Methods: EPA 418.1

Roland K. Tuttle
Roland K. Tuttle

3-14-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7062

Sample Type: Water
Sample Condition: Intact/Iced
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00 ✓
Receiving Date: 02/25/00
Analysis Date: 3/03 & 3/08/00

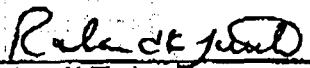
TCLP METALS (mg/L)

ELT#	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
	EPA LIMIT	5.00	5.00	100.0	1.00	5.00	0.20	5.00	1.00
23780	Outside Tank	0.02	<0.002	0.20	0.009	<0.03	0.003	<0.10	<0.002

REPORTING LIMIT 0.01 0.002 0.10 0.005 0.03 0.002 0.10 0.002

% INSTRUMENT ACCURACY 99 95 104 100 102 98 98 102
% EXTRACTION ACCURACY 104 94 105 92 97 85 94 95

METHODS: EPA SW 846-1311, 7760, 7062, 7080, 7130, 7190, 7470, 7420, 7742


Roland K. Tuttle

3-14-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7062

Sample Type: Water
Sample Condition: Intact/Acid/HCl
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 03/09/00
Field Code: Outside Tank

TCLP	SAMPLE	PQL	BLANK	%EA	%DEV
VOLATILES (mg/l)	23790				
1,1-Dichloroethane	ND	0.001	ND	118	-3.1
2-Butanone	ND	0.010	ND		2.3
Chloroform	ND	0.001	ND		-2.0
Benzene	ND	0.001	ND	118	4.9
1,2-Dichloroethane	ND	0.001	ND		3.1
Vinyl Chloride	ND	0.001	ND		3.0
Carbon Tetrachloride	ND	0.001	ND		-5.6
Trichloroethene	ND	0.001	ND	118	-9.3
Tetrachloroethene	ND	0.001	ND		-8.2
Chlorobenzene	ND	0.001	ND	95	-15
1,4-Dichlorobenzene	ND	0.001	ND		-5.5

SYSTEM MONITORING COMPOUNDS

dibromofluoromethane
toluene-d8
4-bromofluorobenzene

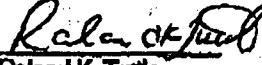
% RECOVERY

105
111
116

ND = < PQL

PQL = PRACTICAL QUANTITATION LIMIT

Methods: EPA SW 846-8240, 1311


Roland K. Tuttle

3-14-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBS, NM 88240
FAX: 505-382-7062

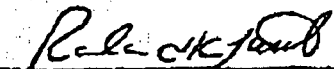
Sample Type: Water
Sample Condition: Intact/Good
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 03/05/00
Field Code: Outside Tank

TCLP SEMI-VOLATILE ORGANICS (mg/L)	REPORTING LIMIT	ELT# 28790
Cresol	<0.040	ND
1,4-Dichlorobenzene	<0.040	ND
2,4-Dinitrotoluene	<0.040	ND
Hexachlorobenzene	<0.040	ND
Hexachlor-1,3-butadiene	<0.040	ND
Hexachloroethane	<0.040	ND
Nitrobenzene	<0.040	ND
Pentachlorophenol	<0.040	ND
Pyridine	<0.040	ND
2,4,5-Trichlorophenol	<0.040	ND
2,4,6-Trichlorophenol	<0.040	ND

ND= NOT DETECTED, < REPORTING LIMIT

Method: SW 846-8270,1311


Roland K. Tuttle

3-14-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBBS, NM 88240
FAX: 505-382-7062

Sample Type: Water
Sample Condition: Intact/Iced
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

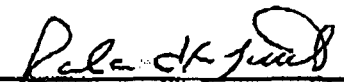
Sampling Date: 02/25/00
Receiving date: 02/25/00
Analysis Date: See Below

ELT#	Field Code	REACTIVITY		CORROSIVITY (s.u.)	IGNITABILITY
		H ₂ S (ppm)	CN- (ppm)		
23790	Outside Tank	NON-REACTIVE <20.0	NON-REACTIVE <2.0	NON-CORROSIVE Non Corrosive 8.00	>200 deg. F

ANALYSIS DATE

3/1/00 3/1/00 2/29/00 3/1/00

METHODS: EPA SW-846-9045, 1010M


Roland K. Tuttle

3-14-00
Date

Form NM 00491-1980
Office II - (505) 748-1283
1 S. First
Tosia, NM 88210
Office III - (505) 334-6178
100 Rio Brazos Road
Tosia, NM 87410
Office 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
NOV 17 2000
Environmental Bureau
Oil Conservation Division

Original &
Submit Only
Plus 1 C
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Chaparral
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318, State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 5801 Lovington Hwy Hobbs, NM 89240	

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 results are generated from Halliburtons Hobbs facility. This waste is generated by the washing of oilfield tools and equipment. Sundance would like to request approval to accept this material into our Parabo Facility.

Estimated Volume 150 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna Roach TITLE: OFFICE MGR DATE: 10-30-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 11/13/00
APPROVED BY: Mark J. King TITLE: Environmental Geologist DATE: 11/17/00

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

COMPANY / GENERATOR Halliburton Energy ServicesADDRESS 5801 Livingston HwyGENERATING SITE SameCOUNTY Lea STATE NMTYPE OF WASTE Wash rack gritESTIMATED VOLUME 200 BblsGENERATING PROCESS Washing of oilfield equipment
Returning from field locations.REMARKS Test Results on file.NMOCD FACILITY Sundance ServicesTRUCKING COMPANY Chaparral Services

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 261.3.

AGENT [Signature]

SIGNATURE

NAME Scott Nelson

PRINTED

ADDRESS 5801 Livingston HwyHobbs, NM 88240DATE 10-2-00



CARDINAL LABORATORIES, INC.

2111 Beechwood, Addicks, TX 75003 401 East Harland, Hobbs, NM 88240
(815) 673-7001 Fax (815) 673-7020 (505) 393-2326 Fax (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name: Hellbenton Energy Services		PO #:	
Project Manager: Scott Nelson			
Address: 5801 Kourtneyton Hwy		City: Hobbs	
State: NM Zip: 88240		Address:	
Phone #:		City:	
Fax #:		State:	
Project #:		Zip:	
Project Name: WASTRACK BRIT		Phone #:	
Project Location: HELLBENTON QARD		Fax #:	
FOR LAB USE ONLY		MATERIAL	
LAB ID.		Sample ID.	
H4530-1 E. & W. Comp.		C 2	
(G) RAB OR (C) COMP.		CONTAINERS	
GROUNDWATER		WASTEWATER	
SOIL		OIL	
SLUDGE		OTHER:	
ACID:		ICE / COOL	
OTHER:		DATE	
TIME		X	
TCP COMPLETE			
ANALYSIS REQUEST			
Delivered By: (Circle One)		Received By: (Lab Seal)	
Sample - DPG - Bios - Other:		Sample Condition	
Checked By:		Checked By:	
Phone Number:		Phone Number:	
Fax Number:		Fax Number:	
Additional Fax #:			

* Cardinal cannot accept verbal changes. Please fax written changes to 815-673-7020.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 383-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 382-7082

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99 ✓
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/GP

TCLP METALS

JAN 01 1999 00:10 FROM: CUST. SVC. CTR. MIDLAND ID: 0150004581 PAGE: 2/11

LAB NO. SAMPLE ID As ppm Ag ppm Ba ppm Cd ppm Cr ppm Pb ppm Hg ppm Se ppm

ANALYSIS DATE:	12/23/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/23/99
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H4530-1 EAST & WEST	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
WASHRACK COMP								
Quality Control	0.193	4.759	51.10	1.002	5.058	5.045	0.00355	0.053
True Value QC	0.200	5.000	50.00	1.000	5.000	5.000	0.00400	0.050
% Recovery	97	95	102	100	101	101	89	106
Relative Standard Deviation	4.3	0.2	1.7	0.2	0.8	0.6	1.3	0.2

METHODS: EPA 1311, 600/4-91/01	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
--------------------------------	-------	-------	-------	-------	-------	-------	-------	-------

Amy Hill
Chemist

12/23/99
Date

H4530M.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.



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PHONE (505) 393-2338 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7082

Receiving Date: 12/21/99
Reporting Date: 12/28/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

REACTIVITY
LAB NUMBER SAMPLE ID Sulfide (ppm) Cyanide (ppm) CORROSIVITY (pH) IGNITABILITY (°F)

ANALYSIS DATE:	12/22/99	12/23/99	12/28/99	12/28/99
H4530-1 EAST & WEST	Not reactive	Not reactive	7.68	>140
WASHRACK COMP				
Quality Control	NR	NR	7.03	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Burgess J. R. Collier
Chemist

12/28/99
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 382-7062**

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCMP SEMIVOLATILES (ppm) EPA LIMIT Sample Result H4530-1 Method Blank ID: 8158286591 True Value QC % Recov. QC

Pyridine	5.00	<0.020	<0.005	0.006	12	0.050
1,4-Dichlorobenzene	7.50	0.024	0.005	0.036	72	0.050
o-Cresol	200	<0.020	<0.005	0.017	34	0.050
m, p-Cresol	200	<0.020	<0.005	0.017	34	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.027	64	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.034	68	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.034	68	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.032	64	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.036	72	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	90	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.044	88	0.050
Pentachlorophenol	100	<0.020	<0.005	0.040	80	0.050

% RECOVERY

Fluorophenol	48
Phenol-d5	47
Nitrobenzene-d5	52
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	62
Terphenyl-d14	75

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

12/25/99
Date

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ARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4530-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.097	97	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.086	86	0.100
Chloroform	6.0	<0.005	<0.005	0.097	97	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.103	103	0.100
Benzene	0.5	<0.005	<0.005	0.097	97	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.112	112	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.114	114	0.100
Chlorobenzene	100	<0.005	<0.005	0.102	102	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

% RECOVERY

Dibromofluoromethane	113
Toluene-d8	112
Bromofluorobenzene	111

METHODS: EPA SW 846-8260, 1311

Burgess J.A. Cook, Ph.D.
Burgess J.A. Cook, Ph.D.

12/25/99
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.

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

Originated 8/

Submit Orig
Plus 1 C
to appropr
District Of

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Electric Submersible PUMP
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Yard
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318, State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 8426 N. Dal Paso Hobbs, NM 88241	
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 results are from Electric Submersible Pump's Hobbs facility. This waste is generated by the washing off of oil field rental tools. All equipment is washed into the sump and pumped to a waste water tank outside the building in a bermed area. I have attached a certificate of waste and chain of custody. Sundance would like approval to accept this material into our Parabo facility.

Estimated Volume 240 bbls. cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 9-27-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environmental Engineer Specialist DATE: 10-23-00
APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 10-11-00

CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: ESP 8426 N DAL PASO HOBBS NM 88240

SOURCE: GILFIELD RINSATE

DISPOSAL LOCATION: SUNDANCE SERVICES, PARABO FACILITY,
P.O. BOX 1737 EUNICE NM 88231

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.

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

ESP

Name

Rodrigo Barrera

Title/Agency

ESP

Address

8426 N DAL PASO

HOBBS NM 88240

Signature

Rodrigo Barrera

Date

9-25-00

6701 Aberdeen Avenue, Ste. 9
 Lubbock, Texas 79424
 Tel (800) 794-1296
 Fax (800) 794-1298
 1 (800) 370-1296

TraceAnalysis, Inc.

4728 Poplar Dr., Ste. A
 El Paso, Texas 79922-1028
 Tel (915) 886-4443
 Fax (915) 886-4944
 1 (886) 886-4443

Company Name: Martina Udo-Hab #599222 Phone #: 915-443-3234

Address: Shrest City, Zip Fax #: _____

Project Person: Memphans

Project for: _____

Project Name: ESD

Object Location: _____

Sampler Signature: _____

LAB # (AB USE ONLY)	FIELD CODE	# CONTAINERS	Volume/Amount	MATRIX				PRESERVATIVE METHOD			SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCL	HNOS	ICE	DATE	TIME
5430	Hebbs	3		✓						✓	5/4/99	
431	Midland	3		✓						✓	4/19/99	
432	Snyder	3		✓						✓	4/20/99	

Requested by: Hebbs Date: 5/4/99 Time: 4:50 PM

Received by: Hebbs Date: 5/4/99 Time: 4:50 PM

Requested by: Hebbs Date: 5/5/99 Time: 4:50 PM

Received by: Hebbs Date: 5/5/99 Time: 4:50 PM

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ANALYSIS REQUEST
 (Circle or Specify Method No.)

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 8062/608
 Pesticides 8061A/608
 BOD, TSS, pH

Turn Around Time if different from standard

Hold

Remarks: Drinking water

not just the sample just

hold time; run per lab

Center # 159 384 494-5

P.O. BOX 1448
MONAHAN, TEXAS 79756
(915) 943-3234 or 563-1040

Martin Water Laboratories, Inc.
WATER CONSULTANTS SINCE 1953
BACTERIAL AND CHEMICAL ANALYSES

Russell Self

709 W. INDIANA
MIDLAND, TEXAS 79701
(915) 683-4321

To: Mr. Malcolm Rainwater
17 Kevin Road
Midland, TX 79703

Laboratory No. 599222
Sample Received 5-25-99
Results Reported 6-9-99

Company: ESP, Inc.

Subject: To make the determinations listed below on submitted water samples.

Source of Sample and Date Taken:

1. Hobbs. 5-6-99
2. Midland (red flush hose). 4-29-99
3. Snyder (test shop). 4-30-99

Hobbs

PARAMETER	#1 - MG/L	#2 - MG/L	#3 - MG/L
Total Petroleum Hydrocarbons	0.3190 <0.500	<0.500	0.602
Dichlorodifluoromethane	ND	ND	ND
Chloromethane	ND	ND	ND
Vinyl chloride	ND	ND	ND
Bromomethane	ND	ND	ND
Chloroethane	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
Methylene chloride	ND	ND	ND
trans-1,2-Dichloroethane	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND
cis-1,2-Dichloroethane	ND	ND	ND
Chloroform	ND	ND	ND
2,2 Dichloropropane	ND	ND	ND
Bromochloromethane	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND
1,1-Dichloropropene	ND	ND	ND
Benzene	ND	0.0079	ND
1,2-Dichloropropane	ND	ND	ND
Trichloroethane	0.0021	0.0300	0.0200
Dibromomethane	ND	ND	ND
Bromodichloromethane	ND	ND	ND
cis-1,3-Dichloropropene	ND	ND	ND
trans-1,3-Dichloropropene	ND	ND	ND
Toluene	ND	0.0130	0.0200
1,1,2-Trichloroethane	ND	ND	ND
1,3-Dichloropropane	ND	ND	ND
MTBE	ND	ND	ND
Dibromochloromethane	ND	ND	ND

	#1 MG/L	#2 MG/L	#3 MG/L
1,2,-Dibromoethane	ND	ND	ND
Tetrachloroethane	ND	ND	ND
Chlorobenzene	ND	ND	ND
1,1,1,2-Tetrachloroethane	ND	ND	ND
Ethylbenzene	ND	0.0100	ND
m&p Xylene	ND	0.0770	0.0095
Bromoform	ND	ND	ND
Styrene	ND	ND	ND
o-Xylene	ND	0.0630	0.0058
1,1,2,2-Tetrachloroethane	ND	ND	ND
1,2,3-Trichloropropane	ND	ND	ND
Isopropylbenzene	ND	0.0033	ND
Bromobenzene	ND	ND	ND
2-Chlorotoluene	ND	ND	ND
n-Propylbenzene	ND	0.0050	ND
4-Chlorotoluene	ND	ND	ND
1,3,5-Trimethylbenzene	ND	0.0270	ND
tert-Butylbenzene	ND	ND	ND
1,2,4-Trimethylbenzene	ND	0.0750	ND
1,4-Dichlorobenzene	ND	ND	ND
sec-Butylbenzene	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND
4-Isopropyltoluene	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND
n-Butylbenzene	ND	ND	ND
1,2-Dibromo-3-chloropropane	ND	ND	ND
1,2,3-Trichlorobenzene	ND	ND	ND
Naphthalene	ND	0.0190	ND
1,2,4-Trichlorobenzene	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND

ND - Not Detected

Notation: Test methods in compliance with U.S. Environmental Protection Agency Regulations; TPH using Method 418.1 and Volatiles using Method 624.

Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Waylan C. Martin, M.A.

Martin Water Laboratories, Inc.

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite B
4725 Ripley Avenue, Suite A

Lubbock, Texas 79424
El Paso, Texas 79922

800-378-1298
808-588-3443
E-Mail: lab@traceanalysis.com

808-794-1298
815-585-3443

FAX 808-794-1298
FAX 815-585-4944

Analytical and Quality Control Report

Sue Brantum
Martin Water Laboratories
709 West Indiana
Midland, TX 79701

Report Date: 5/28/99

Project Number: N/A
Project Name: ESP
Project Location: N/A

Order ID Number: 99052604

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to TraceAnalysis, Inc. for analysis:

Sample Number	Sample Description	Matrix	Date Taken	Time Taken	Date Received
125430	Hobbs	Water	5/6/99	-	5/26/99
125431	Midland	Water	4/29/99	-	5/26/99
125432	Snyder	Water	4/30/99	-	5/26/99

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 2 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.


Dr. Blair Leftwich, Director

Analytical Results Report

Sample Number: 125430
Description: Hobbs

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		<0.500	mg/L	1	E 418.1	5/27/99	5/28/99	MF	PB00908	QC01137	0.5

Sample Number: 125431
Description: Midland

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		<0.500	mg/L	1	E 418.1	5/27/99	5/28/99	MF	PB00908	QC01137	0.5

Sample Number: 125432
Description: Snyder

Param	Flag	Result	Units	Dilution	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch #	QC Batch #	RDL
TRPHC		.602	mg/L	1	E 418.1	5/27/99	5/28/99	MF	PB00908	QC01137	0.5

Quality Control Report Method Blanks

Param	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch #	QC Batch #
TRPHC		<0.500	mg/L	0.5	5/28/99	PB00908	QC01137

Quality Control Report Lab Control Spikes and Duplicate Spike

Standard	Param	Units	Blank Result	Dil.	Spike Amount Added	Matrix Spike Result	% Rec.	RPD	% Rec. Limit	RPD Limit	QC Batch #
LCS	TRPHC	mg/L	<0.500	1	8.5	8.14	96		70 - 130	0 - 20	QC01137
LCSD	TRPHC	mg/L	<0.500	1	8.5	8.21	97	1	70 - 130	0 - 20	QC01137

Quality Control Report Continuing Calibration Verification Standard

Standard	Param	Flag	CCVs TRUE Conc.	Units	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed	QC Batch #
ICV	TRPHC		100	mg/L	101	101	70 - 130	5/28/99	QC01137
CCV (1)	TRPHC		100	mg/L	98.4	98	70 - 130	5/28/99	QC01137

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9
4725 Ripley Avenue, Suite A

Lubbock, Texas 79424 800-378-1296
El Paso, Texas 79922 888-588-3443
E-Mail: lab@traceanalysis.com

806-794-1296 FAX 806-794-1298
915-685-3443 FAX 915-685-4944

ANALYTICAL RESULTS FOR MARTIN WATER LAB

Attention: Sue Branam

P. O. Box 1468

Monahans, TX 79756-1468

PAGE 1 of 2

June 7, 1999

Receiving Date: 05/26/99

Sample Type: Water

Project No:

Project Location:

Prep Date: 05/28/99

Analysis Date: 05/28/99

Sampling Date: 05/06/99

Sample Condition: Intact & Cool

Sample Received by: VW

FIELD CODE: Hobbs

TA #: T125430

624 Compounds	Reporting Unit (ug/L)	Concentration (ug/L)	QC	RPD	EA	IA
Dichlorodifluoromethane	1	ND				
Chloromethane	1	ND				
Vinyl chloride	2	ND	94			94
Bromomethane	5	ND				
Chloroethane	1	ND				
Trichlorofluoromethane	1	ND				
1,1-Dichloroethene	1	ND	84	2	84	84
Methylene chloride	5	ND				
trans-1,2-Dichloroethene	1	ND				
1,1-Dichloroethane	1	ND				
cis-1,2-Dichloroethene	1	ND				
Chloroform	1	ND	90			90
2,2-Dichloropropane	1	ND				
Bromochloromethane	1	ND				
1,2-Dichloroethane	1	ND				
1,1,1-Trichloroethane	1	ND				
Carbon Tetrachloride	1	ND				
1,1-Dichloropropene	1	ND				
Benzene	1	ND		1	92	
1,2-Dichloropropane	1	ND	90			90
Trichloroethene	1	2.1		0	94	
Dibromomethane	1	ND				
Bromodichloromethane	1	ND				
cis-1,3-Dichloropropene	1	ND				
trans-1,3-Dichloropropene	1	ND				
Toluene	1	ND	96	1	96	96
1,1,2-Trichloroethane	1	ND				
1,3-Dichloropropane	1	ND				
MTBE	1	ND				

MARTIN WATER LAB
Attention: Sue Branam

PAGE 2 of 2

FIELD CODE: Hobbs
TA #: T125430

624 Compounds	Reporting Limit (ug/L)	Concentration (ug/L)	QC	RPD	EA	V
Dibromochloromethane	1	ND				
1,2-Dibromoethane	1	ND				
Tetrachloroethene	1	ND				
Chlorobenzene	1	ND	103	1	108	10
1,1,1,2-Tetrachloroethane	1	ND				
Ethylbenzene	1	ND	110			110
m & p-Xylene	1	ND				
Bromoform	1	ND				
Styrene	1	ND				
o-Xylene	1	ND				
1,1,2,2-Tetrachloroethane	1	ND				
1,2,3-Trichloropropane	1	ND				
Isopropylbenzene	1	ND				
Bromobenzene	1	ND				
2-Chlorotoluene	1	ND				
n-Propylbenzene	1	ND				
4-Chlorotoluene	1	ND				
1,3,5-Trimethylbenzene	1	ND				
tert-Butylbenzene	1	ND				
1,2,4-Trimethylbenzene	1	ND				
1,4-Dichlorobenzene	2	ND				
sec-Butylbenzene	1	ND				
1,3-Dichlorobenzene	2	ND				
4-Isopropyltoluene	1	ND				
1,2-Dichlorobenzene	2	ND				
n-Butylbenzene	1	ND				
1,2-Dibromo-3-chloropropane	5	ND				
1,2,3-Trichlorobenzene	5	ND				
Naphthalene	1	ND				
1,2,4-Trichlorobenzene	5	ND				
Hexachlorobutadiene	5	ND				

*Matrix spikes were not used because not enough sample was sent; reported LCS/LCSD.

% Recovery

Dibromofluoromethane
Toluene-d8
4-Bromofluorobenzene

108
105
93

Methods: EPA 624
CHEMIST: JG


Director, Dr. Blair Leftwich

6-7-99
Date

P.O. BOX 1465
MCKINNEY, TEXAS 75066
PH. 943-3234 OR 943-1040

Martin Water Laboratories, Inc.

700 W. INDIANA
MIDLAND, TEXAS 79701
PHONE 683-4521

RESULT OF WATER ANALYSES

TO: Mr. Malcolm Rainwater
17 Kevin Road, Midland, TX 79703

LABORATORY NO. 599187
SAMPLE RECEIVED 5-25-99
RESULTS REPORTED 6-9-99

COMPANY ESP, Inc. LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY STATE

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Hobbs. 5-6-99
NO. 2 Midland (red flush hose). 4-29-99
NO. 3 Snyder (test shop). 4-30-99
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0032	1.0135	1.0060	
pH When Sampled				
pH When Received	6.73	2.58	5.30	
Bicarbonate as HCO ₃	122	0	98	
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	428	1,700	480	
Calcium as Ca	120	580	188	
Magnesium as Mg	31	61	2	
Sodium and/or Potassium	303	5,805	2,208	
Sulfate as SO ₄	160	773	187	
Chloride as Cl	582	9,585	3,550	
Iron as Fe	39.8	157	0.86	
Barium as Ba	0	—	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	1,319	16,804	6,233	
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohm-cm at 77° F.	4.49	0.470	0.910	
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Waylan C. Martin, M.A.

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

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Key Energy Service
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Key
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 418 S. Grimes Hobbs, NM 88240	
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 results are from Key Energy's Hobbs facility. This material is generated from the washing of trucks in the wash bay. I have included a certificate of waste status and chain of custody. Sundance would like approval for accepting this material into our parabo facility.

Estimated Volume 200 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 9-27-00
Waste Management Facility Authorized Agent
 TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environmental Engineer Specialist DATE: 10-03-00
 APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 10-11-00

SEP-27-00 WED 8:27

SUNDANCE SERVICES INC

FAX NO. 5053942590

P.01

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: 418 S. Grimes

SOURCE: Wash Bay Sump

DISPOSAL LOCATION: SUNDANCE SERVICES 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 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
concur with the status of the waste from the subject site.

Key Energy Services Inc.

Name

Title/Agency

Address

City/State

Signature

Date

MANAGER 412

418 S. Grimes

NM 88240

9-27-00

4725 Ripley Dr., Ste A
El Paso, Texas 79922-1026
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

Phone #: 505-397-4994

Fax #:

273-9023

1998年 第 2 期

第 2 期 1998

1998年 第 2 期

第 2 期 1998

Invoice to:
(if different from above)

Project #

Project Name:

WASH PA 30/10

Project Location: Yard 412

Sampler Signature:

P.02

LAB USE ONLY

REMARKS:

Impact Y/N

100-443888-100

Temp. 20.0

1.00 in. Diameter, 1/2 in. Thick

100

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

ORIGINAL COPY

Carrier #

1

TRACE ANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1236 806-794-1236 FAX 806-794-1238
 4725 Ripley Avenue, Suite A El Paso, Texas 79922 888-588-3443 915-585-3443 FAX 915-585-4944
 E-Mail: lab@traceanalysis.com

September 15, 2000

Receiving Date: 09/04/00

Sample Type: Solid

Project #: N/A

Project Location: Yard 412

ANALYTICAL RESULTS FOR

KEY ENERGY SERVICES

Attention: Pete Turner

418 S. Grimes

Hobbs, NM 88240

Sampling Date: 09/02/00

Sample Condition: I & C

Sample Received by: MS

Project Name: Wash Pit Solids

TA#	FIELD CODE	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
	EPALIMIT =	5.0	100	1.0	5.0	5.0	5.0	1.0	5.0
	Wash Pit Solids	<0.10	1.01	<0.02	<0.05	<0.10	<0.10	<0.05	<0.010
T152868									
ICV		2.59	5.13	0.51	1.02	2.57	2.65	0.49	0.00484
CCV		2.64	5.16	0.53	1.03	2.63	2.69	0.49	0.00546
REPORTING LIMIT		0.10	0.10	0.02	0.05	0.10	0.10	0.05	0.010

RPD	1	1	1	1	1	0	1	2	2
% Extraction Accuracy	97	98	102	100	101	101	87	89	98
% Instrument Accuracy	106	103	106	103	105	105	108	98	97

EXTRACTION DATE:	09/05/00	09/05/00	09/05/00	09/05/00	09/05/00	09/05/00	09/07/00	09/05/00	09/05/00
ANALYSIS DATE:	09/07/00	09/07/00	09/07/00	09/07/00	09/07/00	09/07/00	09/07/00	09/07/00	09/06/00

METHODS: EPA 846-1311, 6010B, 7470A

CHEMIST: As, Se, Cd, Cr, Pb, Ag, Ba: RR Hg: BP

TCLP METALS SPIKE: 10 mg/L As, Se, Pb; 2.0 mg/L Ag, Cd; 4.0 mg/L Cr; 20 mg/L Ba; Hg SPIKE 0.050 mg/L
 TCLP METALS CV: 2.50 mg/L As, Pb, Se; 0.50 mg/L Ag, Cd; 5.0 mg/L Ba; 1.0 mg/L Cr; Hg CV: 0.0050 mg/L

Director, Dr. Blair Leftwich

Date

9-15-00

TRACE ANALYSIS, INC.

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El Paso, Texas 79922 888-588-3443
E-Mail: lab@traceanalysis.com

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915-585-3443 FAX 915-585-4844

Analytical and Quality Control Report

Pete Turner
Key Energy Services
418 S. Grimes
Hobbs, NM 88240

Report Date: September 15, 2000

Order ID Number: A00090506

Project Number: N/A
Project Name: Wash Pit Solids
Project Location: Yard 412

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to Trace Analysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
152868	Wash Pit Solids	Solid	9/2/00		9/4/00

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of Trace Analysis, Inc.

Dr. Blair Leftwich
Director

Dr. Blair Leftwich, Director

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 2 of 9
Yard 412

Analytical and Quality Control Report

Sample: 152868 - Wash Pit Solids

Analysis: Corrosivity Analytical Method: S 1110 QC Batch: QC04913 Date Analyzed: 9/6/00
Analyst: MS Preparation Method: N/A Prep Batch: PB04270 Date Prepared: 9/6/00

Param	Flag	Result	Units	Dilution	RDL
Corrosivity		Non	mm/yr	1	
pH		7.43	s.u.	1	

Sample: 152868 - Wash Pit Solids

Analysis: Ignitability Analytical Method: SW-846 Ch. 7.1 QC Batch: QC04912 Date Analyzed: 9/6/00
Analyst: MS Preparation Method: Prep Batch: PB04269 Date Prepared: 9/6/00

Param	Flag	Result	Units	Dilution	RDL
Ignitability		non-ignitable		1	

Sample: 152868 - Wash Pit Solids

Analysis: Reactivity Analytical Method: S 7.3 QC Batch: QC04863 Date Analyzed: 9/6/00
Analyst: MS Preparation Method: N/A Prep Batch: PB04228 Date Prepared: 9/6/00

Param	Flag	Result	Units	Dilution	RDL
Reactivity		Non-reactive		1	
Hydrogen Sulfide		<10		1	
Hydrogen Cyanide		<2.5		1	

Sample: 152868 - Wash Pit Solids

Analysis: TCLP Semivolatiles Analytical Method: E 8270C QC Batch: QC04886 Date Analyzed: 9/13/00
Analyst: MA Preparation Method: 1311 Prep Batch: PB04245 Date Prepared: 9/7/00

Param	Flag	Result	Units	Dilution	RDL
Pyridine		<0.05	mg/L	1	0.05
o-Cresol		<0.05	mg/L	1	0.05
m,p-Cresol		<0.05	mg/L	1	0.05
Hexachloroethane		<0.05	mg/L	1	0.05
Nitrobenzene		<0.05	mg/L	1	0.05
Hexachlorobutadiene		<0.05	mg/L	1	0.05
2,4,6-Trichlorophenol		<0.05	mg/L	1	0.05
2,4,5-Trichlorophenol		<0.05	mg/L	1	0.05
2,4-Dinitrotoluene		<0.05	mg/L	1	0.05
2,4-D		<0.05	mg/L	1	0.05
Hexachlorobenzene		<0.05	mg/L	1	0.05
2,4,5-TP		<0.05	mg/L	1	0.05
Pentachlorophenol		<0.05	mg/L	1	0.05

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 3 of 9
Yard 412

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
2-Fluorophenol		24.38	mg/L	1	80	30	20 - 67
Phenol-d5		15.25	mg/L	1	80	19	7 - 55
Nitrobenzene-d5		67.11	mg/L	1	80	83	33 - 116
2-Fluorobiphenyl		64.37	mg/L	1	80	80	47 - 107
2,4,6-Tribromophenol		65.68	mg/L	1	80	82	47 - 113
Terphenyl-d14		64.08	mg/L	1	80	80	47 - 124

Sample: 152868 - Wash Pit Solids

Analysis: TCLP Volatiles Analytical Method: S 8260B QC Batch: QC04903 Date Analyzed: 9/12/00
Analyst: JG Preparation Method: 1311 Prep Batch: PB04262 Date Prepared: 9/11/00

Param	Flag	Result	Units	Dilution	RDL
Vinyl Chloride		<0.100	mg/L	50	0.002
1,1-Dichloroethene		<0.100	mg/L	50	0.002
Methyl ethyl ketone		<0.500	mg/L	50	0.01
Chloroform		<0.100	mg/L	50	0.002
1,2-Dichloroethane (EDC)		<0.100	mg/L	50	0.002
Benzene		<0.100	mg/L	50	0.002
Carbon Tetrachloride		<0.100	mg/L	50	0.002
Trichloroethene (TCE)		<0.100	mg/L	50	0.002
Tetrachloroethene (PCE)		<0.100	mg/L	50	0.002
Chlorobenzene		<0.100	mg/L	50	0.002
1,4-Dichlorobenzene		<0.100	mg/L	50	0.002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51	mg/L	1	50	102	80 - 120
Toluene-d8		49.50	mg/L	1	50	99	80 - 120
4-Bromofluorobenzene		47	mg/L	1	50	94	80 - 120

Quality Control Report Method Blank

Sample: Method Blank

QC Batch: QC04886

Param	Flag	Results	Units	Reporting Limit
Pyridine		<0.05	mg/L	0.05
o-Cresol		<0.05	mg/L	0.05
m,p-Cresol		<0.05	mg/L	0.05
Hexachloroethane		<0.05	mg/L	0.05
Nitrobenzene		<0.05	mg/L	0.05
Hexachlorobutadiene		<0.05	mg/L	0.05
2,4,6-Trichlorophenol		<0.05	mg/L	0.05

Continued ...

Report Date: September 15, 2000
N/A

Order Number: A00090508
Wash Pit Solids

Page Number: 4 of 9
Yard 412

... Continued

Param	Flag	Results	Units	Reporting Limit
2,4,5-Trichlorophenol		<0.05	mg/L	0.05
2,4-Dinitrotoluene		<0.05	mg/L	0.05
2,4-D		<0.05	mg/L	0.05
Hexachlorobenzene		<0.05	mg/L	0.05
2,4,5-TP		<0.05	mg/L	0.05
Pentachlorophenol		<0.05	mg/L	0.05

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorophenol		20.26	mg/L	80	25	20 - 67
Phenol-d5		12.56	mg/L	80	15	7 - 55
Nitrobenzene-d5		55.37	mg/L	80	69	33 - 116
2-Fluorobiphenyl		53.12	mg/L	80	66	47 - 107
2,4,6-Tribromophenol		52.50	mg/L	80	65	47 - 113
Terphenyl-d14		68.18	mg/L	80	85	47 - 124

Report Date: September 15, 2000

Order Number: A00090508

Sample: Method Blank

QC Batch: QC04903

Param	Flag	Results	Units	Reporting Limit
Vinyl Chloride		<0.10	mg/L	0.002
1,1-Dichloroethene		<0.10	mg/L	0.002
Methyl ethyl ketone		<0.50	mg/L	0.01
Chloroform		<0.10	mg/L	0.002
1,2-Dichloroethane (EDC)		<0.10	mg/L	0.002
Benzene		<0.10	mg/L	0.002
Carbon Tetrachloride		<0.10	mg/L	0.002
Trichloroethene (TCE)		<0.10	mg/L	0.002
Tetrachloroethene (PCE)		<0.10	mg/L	0.002
Chlorobenzene		<0.10	mg/L	0.002
1,4-Dichlorobenzene		<0.10	mg/L	0.002

Surrogate	Flag	Result	Units	Spike Amount	Percent Recovery	Recovery Limit
Dibromofluoromethane		49	mg/L	50	98	80 - 120
Toluene-d8		48.50	mg/L	50	97	80 - 120
4-Bromofluorobenzene		47.50	mg/L	50	95	80 - 120

Quality Control Report

Lab Control Spikes and Duplicate Spikes

Sample: LCS

QC Batch: QC04886

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 5 of 9
Yard 412

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Pyridine		20.72	mg/L	1	80	<0.05	25		0 - 92	20
o-Cresol		36.47	mg/L	1	80	<0.05	45		41 - 92	20
m,p-Cresol		66.39	mg/L	1	160	<0.05	41		7 - 127	20
Hexachloroethane		65.77	mg/L	1	80	<0.05	82		35 - 85	20
Nitrobenzene		67.94	mg/L	1	80	<0.05	84		43 - 108	20
Hexachlorobutadiene		66.22	mg/L	1	80	<0.05	82		38 - 89	20
2,4,6-Trichlorophenol		58.37	mg/L	1	80	<0.05	72		47 - 107	20
2,4,5-Trichlorophenol		62.76	mg/L	1	80	<0.05	78		49 - 105	20
2,4-Dinitrotoluene		74.20	mg/L	1	80	<0.05	92		49 - 105	20
2,4-D		85.83	mg/L	1	80	<0.05	107		0 - 127	20
Hexachlorobenzene		72.76	mg/L	1	80	<0.05	90		47 - 122	20
2,4,5-TP		81.62	mg/L	1	80	<0.05	102		0 - 130	20
Pentachlorophenol		57.67	mg/L	1	80	<0.05	72		33 - 99	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
2-Fluorophenol		22.17	mg/L	1	80	27	20 - 67
Phenol-d5		14.13	mg/L	1	80	17	7 - 55
Nitrobenzene-d5		65.41	mg/L	1	80	81	33 - 116
2-Fluorobiphenyl		66.33	mg/L	1	80	82	47 - 107
2,4,6-Tribromophenol		67.02	mg/L	1	80	83	47 - 113
Terphenyl-d14		64.78	mg/L	1	80	80	47 - 124

Sample: LCSD

QC Batch: QC04886

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Pyridine		22.87	mg/L	1	80	<0.05	28	10	0 - 92	20
o-Cresol		35.68	mg/L	1	80	<0.05	44	2	41 - 92	20
m,p-Cresol		63.41	mg/L	1	160	<0.05	39	4	7 - 127	20
Hexachloroethane		64.15	mg/L	1	80	<0.05	80	2	35 - 85	20
Nitrobenzene		65.99	mg/L	1	80	<0.05	82	3	43 - 108	20
Hexachlorobutadiene		65.73	mg/L	1	80	<0.05	82	1	38 - 89	20
2,4,6-Trichlorophenol		55.94	mg/L	1	80	<0.05	69	4	47 - 107	20
2,4,5-Trichlorophenol		60.44	mg/L	1	80	<0.05	75	4	49 - 105	20
2,4-Dinitrotoluene		70.52	mg/L	1	80	<0.05	88	5	49 - 105	20
2,4-D		80.43	mg/L	1	80	<0.05	100	6	0 - 127	20
Hexachlorobenzene		71.37	mg/L	1	80	<0.05	89	2	47 - 122	20
2,4,5-TP		85.40	mg/L	1	80	<0.05	106	4	0 - 130	20
Pentachlorophenol		54.41	mg/L	1	80	<0.05	68	6	33 - 99	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
2-Fluorophenol		23.37	mg/L	1	80	29	20 - 67
Phenol-d5		15.10	mg/L	1	80	18	7 - 55

Continued ...

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 6 of 9
Yard 412

... Continued

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Nitrobenzene-d5		64.37	mg/L	1	80	80	33 - 116
2-Fluorobiphenyl		61.85	mg/L	1	80	77	47 - 107
2,4,6-Tribromophenol		62.46	mg/L	1	80	78	47 - 113
Terphenyl-d14		65.48	mg/L	1	80	81	47 - 124

Sample: LCS

QC Batch: QC04903

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Vinyl Chloride		7.17	mg/L	1	5	<0.10	143		80 - 120	20
1,1-Dichloroethene		6.59	mg/L	1	5	<0.10	131		80 - 120	20
Methyl ethyl ketone		4.32	mg/L	1	5	<0.50	86		80 - 120	20
Chloroform		5.01	mg/L	1	5	<0.10	100		80 - 120	20
1,2-Dichloroethane (EDC)		4.79	mg/L	1	5	<0.10	95		80 - 120	20
Benzene		5.40	mg/L	1	5	<0.10	108		80 - 120	20
Carbon Tetrachloride		5.52	mg/L	1	5	<0.10	110		80 - 120	20
Trichloroethene (TCE)		5.31	mg/L	1	5	<0.10	106		80 - 120	20
Tetrachloroethene (PCE)		5.56	mg/L	1	5	<0.10	111		80 - 120	20
Chlorobenzene		5.64	mg/L	1	5	<0.10	112		80 - 120	20
1,4-Dichlorobenzene		5.12	mg/L	1	5	<0.10	102		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Dibromofluoromethane		50.5	mg/L	1	50	101	80 - 120
Toluene-d8		49	mg/L	1	50	98	80 - 120
4-Bromofluorobenzene		46.5	mg/L	1	50	93	80 - 120

Sample: LCSD

QC Batch: QC04903

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Vinyl Chloride		6.93	mg/L	1	5	<0.10	138	3	80 - 120	20
1,1-Dichloroethene		6.44	mg/L	1	5	<0.10	128	2	80 - 120	20
Methyl ethyl ketone		4.54	mg/L	1	5	<0.50	90	5	80 - 120	20
Chloroform		5.13	mg/L	1	5	<0.10	102	2	80 - 120	20
1,2-Dichloroethane (EDC)		4.81	mg/L	1	5	<0.10	96	0	80 - 120	20
Benzene		5.39	mg/L	1	5	<0.10	107	0	80 - 120	20
Carbon Tetrachloride		5.63	mg/L	1	5	<0.10	112	2	80 - 120	20
Trichloroethene (TCE)		5.38	mg/L	1	5	<0.10	107	1	80 - 120	20
Tetrachloroethene (PCE)		5.54	mg/L	1	5	<0.10	110	0	80 - 120	20
Chlorobenzene		5.63	mg/L	1	5	<0.10	112	0	80 - 120	20
1,4-Dichlorobenzene		5.12	mg/L	1	5	<0.10	102	0	80 - 120	20

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 7 of 9
Yard 412

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Dibromofluoromethane		51	mg/L	1	50	102	80 - 120
Toluene-d8		49	mg/L	1	50	98	80 - 120
4-Bromofluorobenzene		48	mg/L	1	50	96	80 - 120

Quality Control Report Matrix Spikes and Duplicate Spikes

Sample: MS

QC Batch: QC04903

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Vinyl Chloride		6.22	mg/L	1	5	<0.100	124	13.25	80 - 120	20
1,1-Dichloroethene		6.41	mg/L	1	5	<0.100	128		80 - 120	20
Methyl ethyl ketone		4.91	mg/L	1	5	<0.500	98		80 - 120	20
Chloroform		5.20	mg/L	1	5	<0.100	104		80 - 120	20
1,2-Dichloroethane (EDC)		5.00	mg/L	1	5	<0.100	100		80 - 120	20
Benzene		5.24	mg/L	1	5	<0.100	104		80 - 120	20
Carbon Tetrachloride		5.67	mg/L	1	5	<0.100	113		80 - 120	20
Trichloroethene (TCE)		5.41	mg/L	1	5	<0.100	108		80 - 120	20
Tetrachloroethene (PCE)		5.59	mg/L	1	5	<0.100	111		80 - 120	20
Chlorobenzene		5.59	mg/L	1	5	<0.100	111		80 - 120	20
1,4-Dichlorobenzene		5.19	mg/L	1	5	<0.100	103		80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Dibromofluoromethane		50.5	mg/L	1	50	101	80 - 120
Toluene-d8		49.5	mg/L	1	50	99	80 - 120
4-Bromofluorobenzene		48.5	mg/L	1	50	97	80 - 120

Sample: MSD

QC Batch: QC04903

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Vinyl Chloride		6.07	mg/L	1	5	<0.100	121	2	80 - 120	20
1,1-Dichloroethene		6.34	mg/L	1	5	<0.100	126	1	80 - 120	20
Methyl ethyl ketone		4.63	mg/L	1	5	<0.500	92	6	80 - 120	20
Chloroform		5.15	mg/L	1	5	<0.100	103	1	80 - 120	20
1,2-Dichloroethane (EDC)		4.93	mg/L	1	5	<0.100	98	1	80 - 120	20
Benzene		5.25	mg/L	1	5	<0.100	105	0	80 - 120	20
Carbon Tetrachloride		5.66	mg/L	1	5	<0.100	113	0	80 - 120	20
Trichloroethene (TCE)		5.41	mg/L	1	5	<0.100	108	0	80 - 120	20
Tetrachloroethene (PCE)		5.58	mg/L	1	5	<0.100	111	0	80 - 120	20

Continued ...

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 8 of 9
Yard 412

... Continued

Param	Flag	Sample Result	Units	Dil.	Spike Amount Added	Matrix Result	% Rec.	RPD	% Rec. Limit	RPD Limit
Chlorobenzene		5.59	mg/L	1	5	<0.100	111	0	80 - 120	20
1,4-Dichlorobenzene		5.30	mg/L	1	5	<0.100	106	2	80 - 120	20

Surrogate	Flag	Result	Units	Dil.	Spike Amount	% Rec.	% Rec. Limit
Dibromofluoromethane		50	mg/L	1	50	100	80 - 120
Toluene-d8		49.5	mg/L	1	50	99	80 - 120
4-Bromofluorobenzene		48	mg/L	1	50	96	80 - 120

Quality Control Report Duplicate Samples

Sample: Duplicate QC Batch: QC04912

Param	Flag	Duplicate Result	Sample Result	Units	Dilution	RPD	RPD Limit
Ignitability		Non	non-ignitable		1	0	20

Quality Control Report Continuing Calibration Verification Standards

Sample: CCV (1) QC Batch: QC04886

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Pyridine		mg/L	60	59.55	99	0 - 92	9/13/00
1,4-Dichlorobenzene		mg/L	60	59.58	99	39 - 87	9/13/00
o-Cresol		mg/L	60	63.42	106	41 - 92	9/13/00
m,p-Cresol		mg/L	60	64.79	107	7 - 127	9/13/00
Hexachloroethane		mg/L	60	61.42	102	35 - 85	9/13/00
Nitrobenzene		mg/L	60	62.21	103	43 - 108	9/13/00
Hexachlorobutadiene		mg/L	60	59.56	99	38 - 89	9/13/00
2,4,6-Trichlorophenol		mg/L	60	62.56	104	47 - 107	9/13/00
2,4,5-Trichlorophenol		mg/L	60	64.32	107	49 - 105	9/13/00
2,4-Dinitrotoluene		mg/L	60	62.77	104	49 - 105	9/13/00
2,4-D		mg/L	60	58.34	97	0 - 127	9/13/00
Hexachlorobenzene		mg/L	60	61.79	102	47 - 122	9/13/00
2,4,5-TP		mg/L	60	62.88	104	0 - 130	9/13/00

Continued ...

Report Date: September 15, 2000
N/A

Order Number: A00090506
Wash Pit Solids

Page Number: 9 of 9
Yard 412

... Continued

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Pentachlorophenol		mg/L	60	62.13	103	33 - 99	9/13/00
2-Fluorophenol		mg/L	60	61.92	103	20 - 67	9/13/00
Phenol-d5		mg/L	60	62.64	104	7 - 55	9/13/00
Nitrobenzene-d5		mg/L	60	62.44	104	33 - 116	9/13/00
2-Fluorobiphenyl		mg/L	60	59.57	99	47 - 107	9/13/00
2,4,6-Tribromophenol		mg/L	60	63.50	105	47 - 113	9/13/00
Terphenyl-d14		mg/L	60	66.74	111	47 - 124	9/13/00

Sample: CCV (1)

QC Batch: QC04903

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		mg/L	100	119	119	80 - 120	9/12/00
1,1-Dichloroethene		mg/L	100	115	115	80 - 120	9/12/00
Methyl ethyl ketone		mg/L	100	83	83	80 - 120	9/12/00
Chloroform		mg/L	100	100	100	80 - 120	9/12/00
1,2-Dichloroethane (EDC)		mg/L	100	97	97	80 - 120	9/12/00
Benzene		mg/L	100	104	104	80 - 120	9/12/00
Carbon Tetrachloride		mg/L	100	103	103	80 - 120	9/12/00
Trichloroethene (TCE)		mg/L	100	102	102	80 - 120	9/12/00
Tetrachloroethene (PCE)		mg/L	100	108	108	80 - 120	9/12/00
Chlorobenzene		mg/L	100	112	112	80 - 120	9/12/00
1,4-Dichlorobenzene		mg/L	100	99	99	80 - 120	9/12/00
Dibromofluoromethane		mg/L	50	51.5	103	80 - 120	9/12/00
Toluene-d8		mg/L	50	49.5	99	80 - 120	9/12/00
4-Bromofluorobenzene		mg/L	50	50	100	80 - 120	9/12/00

Param

Flag

Units

1,1-Dichloroethene

Methyl ethyl ketone

Chloroform

1,2-Dichloroethane (EDC)

Benzene

Carbon Tetrachloride

Trichloroethene (TCE)

Tetrachloroethene (PCE)

Chlorobenzene

1,4-Dichlorobenzene

Dibromofluoromethane

Toluene-d8

4-Bromofluorobenzene

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-15
Originated 8/8/

Submit Origin
Plus 1 Co
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☐ No ☐	4. Generator Permian Mack 5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Maclaskey
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318, State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 2121 W West County Road Hobbs, NM 88240	
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 results are from Permian Mack's Hobbs facility. This waste was generated by the washing of trucks and shop tools into the grit trap. I have included a certificate of waste status and chain of custody. Sundance would like approval to accept this material into our Parabo facility.

Estimated Volume 200 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: _____
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environmental Engineer DATE: _____
APPROVED BY: Monty J. Kelly TITLE: Environmental Geologist DATE: 10-11-00

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: 2121 West County Road Hobbs, NM

SOURCE: wash bay grit trap

DISPOSAL LOCATION: SUNDANCE SERVICES 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 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 Permian Mack Sales
concur with the status of the waste from the subject site.

Name

Gary Schrob

Title/Agency

Service Manager

Address

P O Box 1678
Hobbs, NM 88240

Signature

[Signature]

Date

9/28/00



PHONE (915) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR
PERMIAN MACK SALES OF NM, INC.**

ATTN: RANDY

P.O. BOX 1878

HOBBS, NM 88240

FAX TO:

Receiving Date: 09/07/00

Reporting Date: 09/14/00

Project Owner: NOT GIVEN

Project Name: NOT GIVEN

Project Location: NOT GIVEN

Sampling Date: 09/07/00

Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: BC/AH

REACTIVITY

LAB NUMBER SAMPLE ID Sulfide Cyanide CORROSIVITY IGNITABILITY
SEP-19-2000 08:37 MACLASKEY (ppm) (ppm) (pH) (°F)

ANALYSIS DATE:	9/12/00	9/12/00	9/13/00	9/13/00
H5180-1 GRIT TRAP	Not reactive	Not reactive	6.60	>140
Quality Control	NR	NR	6.99	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	99.9	NR
Relative Percent Difference	NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Chemist

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. As a result of 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.

TOTAL P.06



CARDINAL LABORATORIES

PHONE (815) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 383-2328 • 101 E MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR PERMIAN MACK SALES OF NM, INC.

ATTN: RANDY

P.O. BOX 1676

HOBBS, NM 88240

FAX TO:

Receiving Date: 09/07/00

Reporting Date: 09/14/00

Project Owner: NOT GIVEN

Project Name: NOT GIVEN

Project Location: NOT GIVEN

Sampling Date: 09/07/00

Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: GP

Analyzed By: AH

TCLP METALS

LAB NO.	SAMPLE ID	As	Ag	Ba	Cd	Cr	Pb	Hg	Se
		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
ANALYSIS DATE:		09/11/00	09/11/00	09/11/00	09/11/00	09/11/00	9/11/000	09/13/00	09/11/00
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H5160-1	GRIT TRAP	<1	<1	<5	<0.1	<2	<1	<0.02	<0.1
Quality Control		0.055	4.852	24.53	0.949	5.273	5.182	0.0105	0.215
True Value QC		0.050	5.000	25.00	1.000	5.000	5.000	0.0100	0.200
% Recovery		110	97.0	98.1	94.9	105	104	105	108
Relative Standard Deviation		2.3	0.5	1.3	0.4	2.4	0.1	13.2	5.4
METHODS: EPA 1311, 600/4-91/		208.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill
Chemist

9-14-00
Date

H5160.XLS

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PHONE (505) 383-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR PERMIAN MACK SALES OF NM, INC.

ATTN: RANDY
P.O. BOX 1678
HOBBS, NM 88240
FAX TO:

Receiving Date: 09/07/00
Reporting Date: 09/14/00
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Lab Number: H5160-1
Sample ID: GRIT TRAP

Analysis Date: 09/13/00
Sampling Date: 09/07/00
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H5160-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.020	40	0.050
1,4-Dichlorobenzene	7.50	0.028	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.030	60	0.050
m, p-Cresol	200	0.023	<0.005	0.031	62	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.020	52	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.030	60	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.031	62	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.043	86	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.044	88	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.043	86	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.045	90	0.050
Pentachlorophenol	100	<0.020	<0.005	0.041	82	0.050

% RECOVERY

Fluorophenol	53
Phenol-d5	57
Nitrobenzene-d5	77
2-Fluorobiphenyl	65
2,4,6-Tribromophenol	83
Terphenyl-d14	97

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

Date

9/14/00

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PHONE (805) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
PERMIAN MACK SALES OF NM, INC.
ATTN: RANDY
P.O. BOX 1678
HOBBS, NM 88240
FAX TO:

Receiving Date: 09/07/00
Reporting Date: 09/11/00
Project Owner: NOT GIVEN
Project Name: NOT GIVEN
Project Location: NOT GIVEN
Lab Number: H5100-1
Sample ID: GRIT TRAP

Analysis Date: 09/08/00
Sampling Date: 09/07/00
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GE
Analyzed By: BC

TCLP VOLATILES (ppm):	EPA LIMIT	Sample Result	Method	QC	%Recov.	True Value
		H5100-1	Blank			QC
Vinyl Chloride	0.20	<0.005	<0.005	0.087	87	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.102	102	0.100
Methyl Ethyl Ketone	200	0.113	<0.050	0.109	109	0.100
Chloroform	6.0	<0.005	<0.005	0.104	104	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.114	114	0.100
Benzene	0.6	<0.005	<0.005	0.108	108	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.105	105	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.109	109	0.100
Tetrachloroethylene	0.7	0.011	<0.005	0.108	108	0.100
Chlorobenzene	100	<0.005	<0.005	0.106	106	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.111	111	0.100

% RECOVERY

Dibromofluoromethane	95
Toluene-d8	96
Bromofluorobenzene	98

METHODS: EPA SW 846-8260, 1311

Burgess J.A. Cooke, Ph. D.
Burgess J.A. Cooke, Ph. D.

9/11/00
Date

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OCT 2-00 MON 11:19

SUNDANCE SERVICES INC.

FAX NO. 5053942590

P. 02

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

RECEIVED

Originated 8/8/

Oil Conservation Division

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

OCT 03 2000

Environmental Bureau
Oil Conservation DivisionSubmit Orig
Plus 1 Co
to appropria
District Offi

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ 10-3-00	4. Generator BP Permian
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Empire Abo Injection plant
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) S3 T18S R27E	
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 results are from BP Permian's Empire ABO Injection plant. This waste was generated from the Gas Processing Compressor Sumps Dehydrating System. I have included a certificate of waste status and chain of custody. Sundance would like approval to accept this waste into our Parabo Facility.

Note: The generator would like to request a verbal approval on this material to expedite clean up. Jack Ford with the NMOCDD has been involved in this clean up. for further information.

Estimated Volume 900 yds. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 9-29-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: [Signature] TITLE: _____ DATE: _____

APPROVED BY: [Signature] TITLE: Environmental Geologist DATE: 10-3-00

SUNDANCE SERVICES INC.

P.O. BOX 1737

EUNICE, NM 88231

505-394-2511

505-394-2590 FAX

FACSIMILE TRANSMITTAL SHEET

TO: <u>Martynne Kieling</u>	FROM: <u>Donna Roach</u>
COMPANY: <u>OCD</u>	DATE: <u>10-1-00</u>
FAX NUMBER: <u>827-8177</u>	TOTAL NO. OF PAGES INCLUDING COVER: <u>13</u>
PHONE NUMBER: <u>827-7153</u>	SENDER'S REFERENCE NUMBER:
RE:	YOUR REFERENCE NUMBER:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

PLEASE let me know if
possible verbal today.

CHAIN OF CUSTODY

**CERTIFICATE OF WASTE STATUS
NON-EXEMPT WASTE MATERIAL**

ORIGINATING LOCATION: Empire Abo Injection Plant
SOURCE: Compressor Building Sumps
DISPOSAL LOCATION: SUNDANCE SERVICES 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) May 1988 Regulatory Determination. To my knowledge, this waste will be managed pursuant to the provisions of 40 CFR Part 261 to verify the waste as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subpart 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 bp Permian
certify with the status of the waste from the subject site.

Name: Margaret J Lowe
Title/Agency: Sr. Environmental Engineer
Address: PO Box 1610
Midland TX 79707
Signature: Margaret Lowe
Date: 9/19/00

RECEIVED TIME SEP. 18. 11:08AM

PRINT TIME SEP 19 11:08AM



September 29, 2000

AMEC Earth & Environmental
8519 Jefferson NE
Albuquerque, NM 87113

Attention: George Friend

Dear Mr. Friend:

RE: Analytical Results for Project 0-517-000116

Attached are the results for the samples submitted on September 21, 2000 from the above referenced project. For your reference, our project number associated with these samples is NM000542.

The samples were analyzed at the AMEC Environmental Chemistry Laboratory. The samples were also subcontracted to SVL Analytical, Inc. for metals analysis. The subcontracted results are included as Appendix A of this report. This report shall not be reproduced, except in its entirety, without written approval of the laboratory.

All analyses were conducted in accordance with applicable QA/QC guidelines. The results apply only to the samples submitted.

Please feel free to contact me if you have any questions regarding this report, or if I can be of any assistance in any other matter.

Respectfully submitted,

AMEC Earth & Environmental

Sean Gormley
Laboratory Manager

Postnet Fax Note	7871	Date	10/2/00	Page	28
To	George Friend	From	Kim Davis		
Co/Dpt.		Co.			
Phone #		Phone	(505) 263-3400		
Fax #		Fax	(505) 260-7892		

Page 1 of 28



Project: Empire ABO Plant
Project No.: 0-517-000118
Project Manager: George Friend
Sample Matrix: Soil

Service Request No.: NM000542
Report Date: 09/29/00
Report No.: 00054209
C.O.C. No.: 3472

Volatile Organic Compounds by GC/MSD
EPA Methods 8030B/8260B
mg/kg(ppm)

Sample Name:	North Tank	South Tank	S Side Compressor	Compressor Sump	Lab Blank	Reporting
Lab Code:	542-1	542-2	542-3	542-4	542-MB	Limit
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.1
Chloromethane	ND	ND	ND	ND	ND	0.1
Vinyl Chloride	ND	ND	ND	ND	ND	0.1
Bromomethane	ND	ND	ND	ND	ND	0.1
Chloroethane	ND	ND	ND	ND	ND	0.1
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.1
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.1
Acetone	ND	ND	ND	ND	ND	2.0
Carbon Disulfide	ND	ND	ND	ND	ND	0.1
Methylene Chloride	ND	ND	ND	ND	ND	0.5
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.1
MTBE	ND	ND	ND	ND	ND	0.1
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.1
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.1
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.1
2-Butanone (MEK)	ND	ND	ND	ND	ND	1.0
Bromochloromethane	ND	ND	ND	ND	ND	0.1
Chloroform	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.1
Carbon Tetrachloride	ND	ND	ND	ND	ND	0.1
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.1
Benzene	ND	0.082J	ND	ND	ND	0.1
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.1
Trichloroethene	ND	ND	ND	ND	ND	0.1
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.1
Dibromomethane	ND	ND	ND	ND	ND	0.1
Bromodichloromethane	ND	ND	ND	ND	ND	0.1
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.1
4-Methyl-2-Pentanone (MIBK)	ND	ND	ND	ND	ND	1.0
Toluene	ND	ND	ND	ND	ND	0.1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.1
Tetrachloroethene	ND	ND	ND	ND	ND	0.1
2-Hexanone	ND	ND	ND	ND	ND	1.0
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.1
Dibromochloromethane	ND	ND	ND	ND	ND	0.1
1,2-Dibromoethane	ND	ND	ND	ND	ND	0.1
Chlorobenzene	ND	ND	ND	ND	ND	0.1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.1
Ethylbenzene	ND	1.5	ND	ND	ND	0.1
m,p-Xylene	ND	ND	ND	ND	ND	0.2
o-Xylene	ND	ND	ND	ND	ND	0.1
Styrene	ND	ND	ND	ND	ND	0.1

ND: Not Detected

J - Estimated value because the analyte concentration is between the method reporting limit and the detection limit.

0002



Project: Empire ASO Plant
Project No.: 0-517-000116
Project Manager: George Friend
Sample Matrix: Soil

Service Request No.: NM000542
Report Date: 09/29/00
Report No.: 00054209b
C.O.C. No.: 3472

Volatile Organic Compounds by GC/MSD
EPA Methods 5030B/8260B
mg/kg(ppm)

Sample Name:	North Tank	South Tank	S Side Compressor	Compressor Sump	Lab Blank	Reporting Limit
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Bromoform	ND	ND	ND	ND	ND	0.5
Isopropylbenzene	ND	1.1	ND	ND	ND	0.1
Bromobenzene	ND	ND	ND	ND	ND	0.1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.1
n-Propylbenzene	ND	1.3	ND	ND	ND	0.1
2-Chlorotoluene	ND	ND	ND	ND	ND	0.1
4-Chlorotoluene	ND	ND	ND	ND	ND	0.1
1,3,5-Trimethylbenzene	ND	0.050J	ND	ND	ND	0.1
tert-Butylbenzene	ND	0.12	ND	ND	ND	0.1
1,2,4-Trimethylbenzene	ND	0.69	ND	ND	ND	0.1
sec-Butylbenzene	ND	1.4	ND	ND	ND	0.1
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.1
4-Isopropyltoluene	ND	0.56	ND	ND	ND	0.1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.1
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	0.1
n-Butylbenzene	ND	0.27J	ND	ND	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	0.5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	2.5
Hexachlorobutadiene	ND	ND	ND	ND	ND	2.5
Naphthalene	ND	0.57J	ND	ND	ND	2.5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	2.5

Sample Date:	09/20/00	09/20/00	09/20/00	09/20/00	09/21/00
Extraction Date:	09/21/00	09/21/00	09/21/00	09/21/00	09/21/00
Analysis Date:	09/28/00	09/28/00	09/28/00	09/29/00	09/28/00

Surrogate Recoveries:

Dibromodifluoromethane:	85%(a)	91%	98%	90%	100%	89%-115%
Toluene-d ₈ :	75%(a)	83%	91%	75%(a)	100%	89%-124%
4-Bromodifluorobenzene:	80%(a)	108%	101%	83%(a)	103%	90%-127%

NO Not Detected

(a) Outside of AEE acceptance limits. Since the recovery is within USEPA method specified guidance limits, it is the opinion of the laboratory that usability of the data has not been adversely affected.

Signature of Chemist

QVQC Review

0003



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/26/00
 Report No.: 00054203
 C.O.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD
 EPA Methods 8545/8270C
 mg/kg(ppm)
 As Received Basis

Sample Name: Lab Code:	(a) North Tank 542-1	(a) South Tank 542-2	(a)(b) SSide Compressor 542-3	(a)(b) Compressor Sump 542-4	Lab Blank 542-MB	Reporting Limit
Pyridine	<2.6	<2.8	<2.4	<2.8	ND	0.80
N-Nitrosodimethylamine	<2.6	<2.8	<2.4	<2.8	ND	0.80
Aniline	<2.6	<2.8	<2.4	<2.8	ND	0.80
Phenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroethyl) Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Chlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,3-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,4-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzyl Alcohol	<2.6	<2.8	<2.4	<2.8	ND	0.80
1,2-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroisopropyl) Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
3- and 4- Methylphenol*	<1.1	<1.1	<1.0	<1.1	ND	0.33
N-Nitrosodi-n-propylamine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachloroethane	<1.1	<1.1	<1.0	<1.1	ND	0.33
Nitrobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Isophorone	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Nitrophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dimethylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroethoxy) methane	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzoic Acid	<5.3	<5.7	<4.9	<5.6	ND	1.5
2,4-Dichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,2,4-Trichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Naphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chloroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,6-Dichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorobutadiene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chloro-3-methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methylnaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1-Methylnaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorocyclopentadiene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4,6-Trichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4,5-Trichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Chloronaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
Dimethyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Acenaphthylene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,6-Dinitrotoluene	<1.1	<1.1	<1.0	<1.1	ND	0.33
3-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33

ND Not Detected

* Quantified as 4-Methylphenol



Project: Empire ABO Plant
Project No.: 0-517-000118
Project Manager: George Friend
Sample Matrix: Soil

Service Request No.: NM000542
Report Date: 09/25/00
Report No.: 00054203b
C.O.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD
EPA Methods 3545/8270C
mg/kg(ppm)
Dry Weight Basis

Sample Name:	North Tank	South Tank	SSide Compressor	Compressor Sump	Lab Blank	Reporting Limit
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Acenaphthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dinitrophenol	<5.3	<5.7	<4.9	<5.5	ND	1.5
4-Nitrophenol	<2.5	<2.8	<2.4	<2.8	ND	0.80
Dibenzofuran	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dinitrotoluene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,3,4,6-Tetrachlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Diethyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Fluorene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chlorophenyl Phenyl Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
Azobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methyl-4,6-dinitrophenol	<2.5	<2.8	<2.4	<2.8	ND	0.80
N-Nitrosodiphenylamine	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Bromophenyl Phenyl Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Pentachlorophenol (PCP)	<2.5	<2.8	<2.4	<2.8	ND	0.80
Phenanthrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Carbazole	<1.1	<1.1	<1.0	<1.1	ND	0.33
Di-n-butyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzidine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Butyl Benzyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(a)anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
3,3'-Dichlorobenzidine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Chrysene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-ethylhexyl) Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Di-n-octyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(b)fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(k)fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(a)pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Indeno(1,2,3-c,d)pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Dibenzo(a,h)anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(g,h,i)perylene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Sample Date:	09/20/00	09/20/00	09/20/00	09/20/00	09/22/00	
Extraction Date:	09/22/00	09/22/00	09/22/00	09/22/00	09/22/00	
Analysis Date:	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00	

ND Not Detected

OCT-02-00 08:27

FROM-AMEC EAP ENVIRONMENTAL

+

T-204 P.08

F-008

ANALYTICAL, INC.

Governmental Lab # 9.0. Box 928 # Kellogg, Idaho 83837-0928 # Phone: (208)784-1258 # Fax: (208)783-0991

REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Agra Earth & Environmental

SVL JOB # : 95613

SVL SAMPLE # : 244358

CLIENT SAMPLE ID: NORTH TANK

Sample Collected: 9/20/00 11:30

Sample Receipt : 9/22/00

Date of Report : 9/26/00

Sample Matrix: Solid Waste

Extraction : TCLP **

Extracted: 9/22/00

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	7.5			9045C	9/25/00
Ignitibility	>140	°F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.972	mg/L Ext	100.0	6010B	9/25/00
Cadmium	<0.002	mg/L Ext	1.0	6010B	9/25/00
Chromium	<0.006	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	<0.005	mg/L Ext	5.0	6010B	9/25/00
Selenium	<0.02	mg/L Ext	1.0	6010B	9/25/00

** sample extracted according to EPA method 1311 (TCLP).

Reviewed By:

Kirby Day

Date 9/26/00

9/26/00 15:03

ANALYTICAL, INC.

Government Office P.O. Box 928 Kellogg, Idaho 83837-0928 Phone: (208)784-1258 Fax: (208)783-0921

REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Agra Earth & Environmental SVL JOB # : 95613
 SVL SAMPLE # : 244360
 CLIENT SAMPLE ID: COMPRESSOR SUMP
 Sample Collected: 9/20/00 14:00 Sample Matrix: Solid Waste
 Sample Receipt : 9/22/00 Extraction : TCLP **
 Date of Report : 9/26/00 Extracted: 9/22/00

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	6.7			9045C	9/25/00
Ignitability	>140	°F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.162	mg/L Ext	100.0	6010B	9/25/00
Cadmium	0.021	mg/L Ext	1.0	6010B	9/25/00
Chromium	<0.006	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	<0.005	mg/L Ext	5.0	6010B	9/25/00
Selenium	0.03	mg/L Ext	1.0	6010B	9/25/00

** Sample extracted according to EPA method 1311 (TCLP).

Reviewed By: Kirby Gray Date 9/26/00

9/26/00 11:08

ANALYTICAL, INC.

Government Gulch P.O. Box 929 Ecology, Idaho 83837-0929 Phone: (208) 784-1258 Fax: (208) 783-0821

REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Agra Earth & Environmental SVL JOB # : 95613
SVL SAMPLE # : 244359
CLIENT SAMPLE ID: S.SIDE COMPRESSOR
Sample Collected: 9/20/00 13:50 Sample Matrix: Solid Waste
Sample Receipt : 9/22/00 Extraction : TCLP **
Date of Report : 9/26/00 Extracted: 9/22/00

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	7.8			9045C	9/25/00
Ignitibility	>140	*F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.155	mg/L Ext	100.0	6010B	9/25/00
Cadmium	<0.002	mg/L Ext	1.0	6010B	9/25/00
Chromium	<0.006	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	<0.005	mg/L Ext	5.0	6010B	9/25/00
Selenium	0.03	mg/L Ext	1.0	6010B	9/25/00

** Sample extracted according to EPA method 1311 (TCLP).

Reviewed By: *[Signature]*

Date: 9/26/00
9/26/00 15:08

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 Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator BP Permian
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Empire Abo Injection plant
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) S3 T18S R27E	
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 results are from BP Permian's Empire ABO Injection plant. This waste was generated from the Gas Processing Compressor Sumps Dehydrating System. I have included a certificate of waste status and chain of custody. Sundance would like approval to accept this waste into our Parabo Facility.

Note: The generator would like to request a verbal approval on this material to expedite clean up. Jack Ford with the NMOCDC has been involved in this clean up. for further information please

Estimated Volume 900 yds. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 9-29-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)
APPROVED BY: Donna Williams TITLE: Environmental Eng Specialist DATE: 10-06-00
APPROVED BY: Martyn J. Zilly TITLE: Environmental Geologist DATE: 10-11-00

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: Empire Abo Injection PlantSOURCE: Compressor Building SumpsDISPOSAL LOCATION: SUNDRANCE SERVICES 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 1980 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, Subpart 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 261.2.

I, the undersigned as the agent for bp Permian
appear with the status of the waste from the subject site.

Name: Margaret J Lowe
Title/Agency: Sr. Environmental Engineer
Address: PO Box 11610
Midland TX 79707
Signature: Margaret Lowe
Date: 9/19/00

RECEIVED TIME SEP. 18. 11:06AM

PRINT TIME SEP 19 11:06AM



September 29, 2000

AMEC Earth & Environmental
8519 Jefferson NE
Albuquerque, NM 87113

Attention: George Friend

Dear Mr. Friend:

RE: Analytical Results for Project 0-517-000116

Attached are the results for the samples submitted on September 21, 2000 from the above referenced project. For your reference, our project number associated with these samples is NM000542.

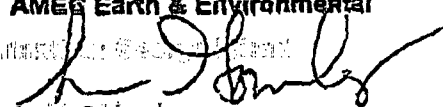
The samples were analyzed at the AMEC Environmental Chemistry Laboratory. The samples were also subcontracted to SVL Analytical, Inc. for metals analysis. The subcontracted results are included as Appendix A of this report. This report shall not be reproduced, except in its entirety, without written approval of the laboratory.

All analyses were conducted in accordance with applicable QA/QC guidelines. The results apply only to the samples submitted.

Please feel free to contact me if you have any questions regarding this report, or if I can be of any assistance in any other matter.

Respectfully submitted,

AMEC Earth & Environmental


Mr. Sean Gormley
Laboratory Manager

AMEC Earth & Environmental, Inc. 1-800-941-1115

Post-it® Fax Note 7671		Date	10/2/00	# of pages	28
To		From Kim Davis			
Co./Dept.		Co.			
Phone #		Phone (503) 639-3400			
Fax #		Fax (503) 620-7892			

Page 1 of 28

AMEC Earth & Environmental, Inc.
7477 SW Tech Center Drive
Portland, Oregon, USA 97223

www.amec.com

Tel: +1 (503) 639-3400
Fax: +1 (503) 620-7892



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/29/00
 Report No.: 00054209
 C.O.C. No.: 3472

Volatile Organic Compounds by GC/MSD
 EPA Methods 5030B/8260B
 mg/kg(ppm)

Sample Name: Lab Code:	North Tank 542-1	South Tank 542-2	S Side Compressor 542-3	Compressor Sump 542-4	Lab Blank 542-MB	Reporting Limit
Dichlorodifluoromethane	ND	ND	ND	ND	ND	0.1
Chloromethane	ND	ND	ND	ND	ND	0.1
Vinyl Chloride	ND	ND	ND	ND	ND	0.1
Bromomethane	ND	ND	ND	ND	ND	0.1
Chloroethane	ND	ND	ND	ND	ND	0.1
Trichlorofluoromethane	ND	ND	ND	ND	ND	0.1
1,1-Dichloroethene	ND	ND	ND	ND	ND	0.1
Acetone	ND	ND	ND	ND	ND	2.0
Carbon Disulfide	ND	ND	ND	ND	ND	0.1
Methylene Chloride	ND	ND	ND	ND	ND	0.5
trans-1,2-Dichloroethane	ND	ND	ND	ND	ND	0.1
MTBE	ND	ND	ND	ND	ND	0.1
1,1-Dichloroethane	ND	ND	ND	ND	ND	0.1
2,2-Dichloropropane	ND	ND	ND	ND	ND	0.1
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	0.1
P-2-Butanone(MEK)	ND	ND	ND	ND	ND	1.0
Bromochloromethane	ND	ND	ND	ND	ND	0.1
Chloroform	ND	ND	ND	ND	ND	0.5
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	0.1
Carbon Tetrachloride	ND	ND	ND	ND	ND	0.1
1,1-Dichloropropene	ND	ND	ND	ND	ND	0.1
Benzene	ND	0.082J	ND	ND	ND	0.1
1,2-Dichloroethane	ND	ND	ND	ND	ND	0.1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.1
1,2-Dichloropropane	ND	ND	ND	ND	ND	0.1
Dibromomethane	ND	ND	ND	ND	ND	0.1
Bromodichloromethane	ND	ND	ND	ND	ND	0.1
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.1
4-Methyl-2-Pentanone(MIBK)	ND	ND	ND	ND	ND	1.0
Toluene	ND	ND	ND	ND	ND	0.1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	0.1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	0.1
Tetrachloroethene	ND	ND	ND	ND	ND	0.1
2-Hexanone	ND	ND	ND	ND	ND	1.0
1,3-Dichloropropane	ND	ND	ND	ND	ND	0.1
Dibromochloromethane	ND	ND	ND	ND	ND	0.1
1,2-Dibromoethane	ND	ND	ND	ND	ND	0.1
Chlorobenzene	ND	ND	ND	ND	ND	0.1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.1
Ethylbenzene	ND	1.5	ND	ND	ND	0.1
m,p-Xylene	ND	ND	ND	ND	ND	0.2
o-Xylene	ND	ND	ND	ND	ND	0.1
Styrene	ND	ND	ND	ND	ND	0.1

ND Not Detected

J - Estimated value because the analyte concentration is between the method reporting limit and the detection limit.

0000



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/29/00
 Report No.: 00054209b
 C.O.C. No.: 3472

Volatile Organic Compounds by GC/MSD
 EPA Methods 5030B/8260B
 mg/kg(ppm)

Sample Name:	North Tank	South Tank	S Side Compressor	Compressor Sump	Lab Blank	Reporting Limit
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Bromoform	ND	ND	ND	ND	ND	0.5
Isopropylbenzene	ND	1.1	ND	ND	ND	0.1
Bromobenzene	ND	ND	ND	ND	ND	0.1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	0.1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	0.1
n-Propylbenzene	ND	1.3	ND	ND	ND	0.1
2-Chlorotoluene	ND	ND	ND	ND	ND	0.1
4-Chlorotoluene	ND	ND	ND	ND	ND	0.1
1,3,5-Trimethylbenzene	ND	0.050J	ND	ND	ND	0.1
tert-Butylbenzene	ND	0.12	ND	ND	ND	0.1
1,2,4-Trimethylbenzene	ND	0.69	ND	ND	ND	0.1
sec-Butylbenzene	ND	1.4	ND	ND	ND	0.1
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	0.1
4-Isopropyltoluene	ND	0.56	ND	ND	ND	0.1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	0.1
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	0.1
n-Butylbenzene	ND	0.27J	ND	ND	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	ND	ND	ND	ND	0.5
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	2.5
Hexachlorobutadiene	ND	ND	ND	ND	ND	2.5
Naphthalene	ND	0.57J	ND	ND	ND	2.5
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	2.5

Sample Date: 09/20/00 09/20/00 09/20/00 09/20/00 09/21/00
 Extraction Date: 09/21/00 09/21/00 09/21/00 09/21/00 09/21/00
 Analysis Date: 09/28/00 09/28/00 09/28/00 09/29/00 09/26/00

Surrogate Recoveries:

					Control Limits
Dibromofluoromethane:	85%(a)	91%	96%	90%	89%-115%
Toluene-d ₈ :	75%(a)	83%	91%	75%(a)	89%-124%
4-Bromofluorobenzene:	80%(a)	108%	101%	83%(a)	90%-127%

ND Not Detected

(a) Outside of AEE acceptance limits. Since the recovery is within USEPA method specified guidance limits, it is the opinion of the laboratory that usability of the data has not been adversely affected.

Signature of Chemist

QA/QC Review

0003



Project: Empire ABO Plant
Project No.: 0-517-000116
Project Manager: George Friend
Sample Matrix: Soil

Service Request No.: NM000542
Report Date: 09/26/00
Report No.: 00054203
C.Q.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD
EPA Methods 3545/8270C
mg/kg(ppm)
As Received Basis

Sample Name:	(a) North Tank	(a) South Tank	(a)(b) SSide Compressor	(a)(b) Compressor Sump	Lab Blank 542-MB	Reporting Limit
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Pyridine	<2.6	<2.8	<2.4	<2.8	ND	0.80
N-Nitrosodimethylamine	<2.6	<2.8	<2.4	<2.8	ND	0.80
Aniline	<2.6	<2.8	<2.4	<2.8	ND	0.80
Phenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroethyl) Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Chlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,3-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,4-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzyl Alcohol	<2.6	<2.8	<2.4	<2.8	ND	0.80
1,2-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroisopropyl) Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
3- and 4- Methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
N-Nitrosodi-n-propylamine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachloroethane	<1.1	<1.1	<1.0	<1.1	ND	0.33
Nitrobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Isophorone	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Nitrophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dimethylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroethoxy) methane	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzoic Acid	<5.3	<5.7	<4.9	<5.5	ND	1.5
2,4-Dichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,2,4-Trichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1-Methyl-2-Naphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chloroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,6-Dichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorobutadiene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chloro-3-methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methylnaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1-Methylnaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorocyclopentadiene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,2,4,6-Trichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,2,4,5-Trichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Chloronaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
Dimethyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Acenaphthylene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,6-Dinitrotoluene	<1.1	<1.1	<1.0	<1.1	ND	0.33
3-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33

ND Not Detected

* Quantified as 4-Methylphenol

0006



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/26/00
 Report No.: 00054203b
 C.O.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD
 EPA Methods 3545/8270C
 mg/kg(ppm)
 Dry Weight Basis

Sample Name:	North Tank 542-1	South Tank 542-2	SSide Compressor 542-3	Compressor Sump 542-4	Lab Blank 542-MB	Reporting Limit
Lab Code:			<1.0	<1.1	ND	0.33
Acenaphthene	<1.1	<1.1	<4.9	<5.5	ND	1.5
2,4-Dinitrophenol	<5.3	<5.7	<2.4	<2.8	ND	0.80
4-Nitrophenol	<2.6	<2.8	<1.0	<1.1	ND	0.33
Dibenzofuran	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dinitrotoluene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,3,4,6-Tetrachlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Diethyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Fluorene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chlorophenyl Phenyl Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
Azobenzene	<1.1	<1.1	<2.4	<2.8	ND	0.80
2-Methyl-4,6-dinitrophenol	<2.6	<2.8	<1.0	<1.1	ND	0.33
N-Nitrosodiphenylamine	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Bromophenyl Phenyl Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorobenzene	<1.1	<1.1	<2.4	<2.8	ND	0.80
Pentachlorophenol (PCP)	<2.6	<2.8	<1.0	<1.1	ND	0.33
Phenanthrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Carbazole	<1.1	<1.1	<1.0	<1.1	ND	0.33
Di-n-butyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzidine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Butyl Benzyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(a)anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
3,3'-Dichlorobenzidine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Chrysene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-ethylhexyl) Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Di-n-octyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(b)fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(k)fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(a)pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Indeno(1,2,3-c,d)pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Dibenzo(a,h)anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(g,h,i)perylene	<1.1	<1.1	<1.0	<1.1	ND	0.33

Sample Date: 09/20/00 09/20/00 09/20/00 09/20/00 09/22/00
 Extraction Date: 09/22/00 09/22/00 09/22/00 09/22/00 09/22/00
 Analysis Date: 09/25/00 09/25/00 09/25/00 09/25/00 09/25/00

ND Not Detected

0007

. ANALYTICAL, INC.

Government Gulch

P.O. Box 929

Kellogg, Idaho 83837-0929

Phone: (208)784-1258

Fax: (208)783-0891

REPORT OF ANALYTICAL RESULTS (TCLP)**CLIENT : Agra Earth & Environmental****SVL JOB # : 95613****SVL SAMPLE # : 244358****CLIENT SAMPLE ID: NORTH TANK****Sample Collected: 9/20/00 11:30****Sample Matrix: Solid Waste****Sample Receipt : 9/22/00****Extraction : TCLP ******Date of Report : 9/26/00****Extracted: 9/22/00**

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	7.5			9045C	9/25/00
Ignitibility	>140	°F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.972	mg/L Ext	100.0	6010B	9/25/00
Cadmium	<0.002	mg/L Ext	1.0	6010B	9/25/00
Chromium	<0.006	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	<0.005	mg/L Ext	5.0	6010B	9/25/00
Selenium	<0.02	mg/L Ext	1.0	6010B	9/25/00

**** Sample extracted according to EPA Method 1311 (TCLP).****Reviewed By:***Dirk L. Gray***Date 9/26/00**

9/26/00 15:08

Determination

Corrosivity

Ignitibility

Reactivity

Silver

Arsenic

Barium

Cadmium

Chromium

Mercury

Lead

Selenium

C020

ANALYTICAL, INC.

Government Gulch

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REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Agra Earth & Environmental

SVL JOB # : 95613

SVL SAMPLE # : 244359

CLIENT SAMPLE ID: S.SIDE COMPRESSOR

Sample Collected: 9/20/00 13:50

Sample Matrix: Solid Waste

Sample Receipt : 9/22/00

Extraction : TCLP **

Date of Report : 9/26/00

Extracted: 9/22/00

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	7.8			9045C	9/25/00
Ignitibility	>140	°F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.155	mg/L Ext	100.0	6010B	9/25/00
Cadmium	<0.002	mg/L Ext	1.0	6010B	9/25/00
Chromium	<0.006	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	<0.005	mg/L Ext	5.0	6010B	9/25/00
Selenium	0.03	mg/L Ext	1.0	6010B	9/25/00

** Sample extracted according to EPA method 1311 (TCLP).

Reviewed By:

Date 9/26/00

9/26/00 15:08

Determination	Result	Units	Limit	Method
Corrosivity, pH	7.8			9045C
Ignitibility	>140	°F		1010
Reactivity	NO	YES/NO		SW846
Silver	<0.005	mg/L Ext	5.0	6010B
Arsenic	<0.02	mg/L Ext	5.0	6010B
Barium	0.155	mg/L Ext	100.0	6010B
Cadmium	<0.002	mg/L Ext	1.0	6010B
Chromium	<0.006	mg/L Ext	5.0	6010B
Mercury	<0.0002	mg/L Ext	0.2	7470
Lead	<0.005	mg/L Ext	5.0	6010B
Selenium	0.03	mg/L Ext	1.0	6010B

** Sample extracted according to EPA method 1311 (TCLP).

Reviewed By:

0021

ANALYTICAL, INC.

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REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Agra Earth & Environmental

SVL JOB # : 95613
SVL SAMPLE # : 244360

CLIENT SAMPLE ID: COMPRESSOR SUMP
Sample Collected: 9/20/00 14:00
Sample Receipt : 9/22/00
Date of Report : 9/26/00

Sample Matrix: Solid Waste
Extraction : TCLP **
Extracted: 9/22/00

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	6.7	pH		9045C	9/25/00
Ignitability	>140	°F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.162	mg/L Ext	100.0	6010B	9/25/00
Cadmium	0.021	mg/L Ext	1.0	6010B	9/25/00
Chromium	<0.006	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	<0.005	mg/L Ext	5.0	6010B	9/25/00
Selenium	0.03	mg/L Ext	1.0	6010B	9/25/00

** Sample extracted according to EPA method 1311 (TCLP).

Reviewed By: Kirby Gray

Date: 9/26/00
9/26/00 15:08

Determination	Result	Unit
Corrosivity	6.7	pH
Ignitability	>140	°F
Reactivity	NO	YES/NO
Silver	<0.005	mg/L
Arsenic	<0.02	mg/L
Barium	0.162	mg/L
Cadmium	0.021	mg/L
Chromium	<0.006	mg/L
Mercury	<0.0002	mg/L
Lead	<0.005	mg/L
Selenium	0.03	mg/L

ANALYTICAL, INC.

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REPORT OF ANALYTICAL RESULTS (TCLP)

CLIENT : Agra Earth & Environmental

SVL JOB # : 95613

SVL SAMPLE # : 244361

CLIENT SAMPLE ID: SOUTH TANK

Sample Collected: 9/20/00 13:10

Sample Receipt : 9/22/00

Date of Report : 9/26/00

Sample Matrix: Solid Waste

Extraction : TCLP **

Extracted: 9/22/00

Determination	Result	Units	TCLP Reg. Limit	Method	Analysis Date
Corrosivity, pH	6.8			9045C	9/25/00
Ignitability	>140	°F		1010	9/25/00
Reactivity	NO	YES/NO		SW846	9/25/00
Silver	<0.005	mg/L Ext	5.0	6010B	9/25/00
Arsenic	<0.02	mg/L Ext	5.0	6010B	9/25/00
Barium	0.204	mg/L Ext	100.0	6010B	9/25/00
Cadmium	<0.002	mg/L Ext	1.0	6010B	9/25/00
Chromium	0.019	mg/L Ext	5.0	6010B	9/25/00
Mercury	<0.0002	mg/L Ext	0.2	7470	9/25/00
Lead	0.019	mg/L Ext	5.0	6010B	9/25/00
Selenium	<0.02	mg/L Ext	1.0	6010B	9/25/00

** Sample extracted according to EPA method 1311 (TCLP).

Reviewed By:

Barbara A. Gray

Date

9/26/00

9/26/00 15:08



Project: Empire ABO Plant
 Project No.: 0-517-000118
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/28/00
 Report No.: 00054206
 C.O.C. No.: 3472

Total Petroleum Hydrocarbons - Gasoline, Diesel and Heavy Oil Ranges
EPA Methods 3510/8015B
mg/kg (ppm)

Sample Name	Lab Code	Sample Date	Extraction Date	Analysis Date	Gasoline Result	Diesel Result	Heavy Oil Result	Surrogate Recovery	
								4-BFB	O-Terphenyl
North Tank	542-1	9/20/00	9/21/00	9/28/00	<2500(a)	7100(b)(c)	110,000(b)	(a)	(d)
South Tank	542-2	9/20/00	9/21/00	9/22/00	550(e)	240(f)	5200(g)	(h)	74
Seide Compressor	542-3	9/20/00	9/21/00	9/28/00	<1000(a)	2200(c)(i)	44,000(i)	(d)	(d)
Lab Blank	542-MB	9/21/00	9/21/00	9/22/00	<25	<25	<100	84	79

Control Limits 37%-88% 45%-132%

- (a) Method reporting limit is elevated because the sample required dilution.
 (b) Result is from a 1:100 dilution.
 (c) Results are quantified as diesel, but the chromatographic evidence suggests that heavy oil range petroleum hydrocarbons are eluting within the diesel range.
 (d) Not applicable because the analysis of the sample required a dilution that reduced the surrogate concentration below the analytical detection limit.
 (e) Chromatographic evidence suggests the possible presence of weathered gasoline.
 (f) Results are quantified as diesel, but the chromatographic pattern suggests a coelution of weathered gasoline and heavy oil.
 (g) Result is from a 1:10 dilution.
 (h) Not applicable due to the presence of chromatographic peaks from target and non-target compounds which prevented determination of the surrogate.
 (i) Result is from a 1:40 dilution.

Total Petroleum Hydrocarbons - Gasoline, Diesel and Heavy Oil Ranges
 EPA Methods 3510/8015B
 mg/kg (ppm)

Sample Name	Lab Code	Sample Date	Extraction Date	Analysis Date	Gasoline Result	Diesel Result	Heavy Oil Result	4-BFB	O-Terphenyl
North Tank	542-1	9/20/00	9/21/00	9/28/00	<2500(a)	7100(b)(c)	110,000(b)	(a)	(d)
South Tank	542-2	9/20/00	9/21/00	9/22/00	550(e)	240(f)	5200(g)	(h)	74
Seide Compressor	542-3	9/20/00	9/21/00	9/28/00	<1000(a)	2200(c)(i)	44,000(i)	(d)	(d)
Lab Blank	542-MB	9/21/00	9/21/00	9/22/00	<25	<25	<100	84	79

(a) Method reporting limit is elevated because the sample required dilution.

(b) Result is from a 1:100 dilution.

(c) Results are quantified as diesel, but the chromatographic evidence suggests that heavy oil range petroleum hydrocarbons are eluting within the diesel range.

(d) Not applicable because the analysis of the sample required a dilution that reduced the surrogate concentration below the analytical detection limit.

(e) Chromatographic evidence suggests the possible presence of weathered gasoline.

(f) Results are quantified as diesel, but the chromatographic pattern suggests a coelution of weathered gasoline and heavy oil.

(g) Result is from a 1:10 dilution.

(h) Not applicable due to the presence of chromatographic peaks from target and non-target compounds which prevented determination of the surrogate.

(i) Result is from a 1:40 dilution.

PRELIMINARY DATA ONLY
THIS REPORT HAS NOT BEEN
SUBJECTED TO FINAL QA/QC
REVIEW

Signature of _____
 DATE 9/28/00
 RELEASED BY _____
 QA/QC Review



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/26/00
 Report No.: 00054203
 C.O.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD

EPA Methods 3545/8270C

mg/kg(ppm)

As Received Basis

Sample Name:	(a) North Tank	(a) South Tank	(a)(b) SSide Compressor	(a)(b) Compressor Sump	Lab Blank 542-MB	Reporting Limit
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Pyridine	<2.6	<2.8	<2.4	<2.8	ND	0.80
N-Nitrosodimethylamine	<2.6	<2.8	<2.4	<2.8	ND	0.80
Aniline	<2.6	<2.8	<2.4	<2.8	ND	0.80
Phenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroethyl) Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Chlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,3-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,4-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzyl Alcohol	<2.6	<2.8	<2.4	<2.8	ND	0.80
1,2-Dichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroisopropyl) Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
3- and 4- Methylphenol*	<1.1	<1.1	<1.0	<1.1	ND	0.33
N-Nitrosodi-n-propylamine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachloroethane	<1.1	<1.1	<1.0	<1.1	ND	0.33
Nitrobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Isophorone	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Nitrophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dimethylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-chloroethoxy) methane	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzoic Acid	<5.3	<5.7	<4.9	<5.5	ND	1.5
2,4-Dichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
1,2,4-Trichlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1-Naphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chloroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,6-Dichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorobutadiene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chloro-3-methylphenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methylnaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
1-Methylnaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorocyclopentadiene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4,6-Trichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4,5-Trichlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Chloronaphthalene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
Dimethyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Acenaphthylene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,6-Dinitrotoluene	<1.1	<1.1	<1.0	<1.1	ND	0.33
3-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33

ND Not Detected

* Quantified as 4-Methylphenol

PRELIMINARY DATA ONLY
 THIS REPORT HAS NOT BEEN
 SUBJECTED TO FINAL QA/QC
 REVIEW

RELEASED BY

DATE 9/28/00



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/26/00
 Report No.: 00054203b
 C.O.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD
 EPA Methods 3545/8270C
 mg/kg(ppm)
 Dry Weight Basis

Sample Name:	North Tank 542-1	South Tank 542-2	SSide Compressor 542-3	Compressor Sump 542-4	Lab Blank 542-MB	Reporting Limit
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Acenaphthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dinitrophenol	<5.3	<5.7	<4.9	<5.5	ND	1.5
4-Nitrophenol	<2.6	<2.8	<2.4	<2.8	ND	0.80
Dibenzofuran	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,4-Dinitrotoluene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2,3,4,6-Tetrachlorophenol	<1.1	<1.1	<1.0	<1.1	ND	0.33
Diethyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Fluorene	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Chlorophenyl Phenyl Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Nitroaniline	<1.1	<1.1	<1.0	<1.1	ND	0.33
Azobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
2-Methyl-4,6-dinitrophenol	<2.6	<2.8	<2.4	<2.8	ND	0.80
N-Nitrosodiphenylamine	<1.1	<1.1	<1.0	<1.1	ND	0.33
4-Bromophenyl Phenyl Ether	<1.1	<1.1	<1.0	<1.1	ND	0.33
Hexachlorobenzene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Pentachlorophenol (PCP)	<2.6	<2.8	<2.4	<2.8	ND	0.80
Phenanthrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Carbazole	<1.1	<1.1	<1.0	<1.1	ND	0.33
Di-n-butyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzidine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Butyl Benzyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(a)anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
3,3'-Dichlorobenzidine	<1.1	<1.1	<1.0	<1.1	ND	0.33
Chrysene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Bis(2-ethylhexyl) Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Di-n-octyl Phthalate	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(b)fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(k)fluoranthene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(a)pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Indeno(1,2,3-c,d)pyrene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Dibenzo(a,h)anthracene	<1.1	<1.1	<1.0	<1.1	ND	0.33
Benzo(g,h,i)perylene	<1.1	<1.1	<1.0	<1.1	ND	0.33

Sample Date: 09/20/00

Extraction Date: 09/22/00

Analysis Date: 09/25/00

ND Not Detected

PRELIMINARY DATA ONLY
 THIS REPORT HAS NOT BEEN
 SUBJECTED TO FINAL QA/QC

REVIEW

RELEASED BY: DATE: 9/28/00

SEP-28-2000 THU 03:10 PM FAX NO. 00000000

AMEC



Project: Empire ABO Plant
 Project No.: 0-517-000116
 Project Manager: George Friend
 Sample Matrix: Soil

Service Request No.: NM000542
 Report Date: 09/26/00
 Report No.: 00054203c
 C.O.C. No.: 3472

Semivolatile Organic Compounds by GC/MSD

EPA Methods 3545/8270C

mg/kg(ppm)

Dry Weight Basis

Surrogate Recoveries:

Sample Name:	North Tank	South Tank	(b) SSide Compressor	(b) Compressor Sump	Lab Blank	Control Limits
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Analysis Date:	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00	
2-Fluorophenol:	78%	78%	73%	75%	57%	33%-94%
Phenol-d5:	79%	78%	71%	78%	58%	33%-100%
Nitrobenzene-d5:	100%	97%	93%	100%	74%	31%-94%
2-Fluorobiphenyl:	112%	107%	99%	115%(c)	78%	32%-105%
2,4,6-Tribromophenol:	97%	79%	72%	80%	54%	30%-85%
p-Terphenyl-d14:	103%	81%	91%	136%(c)	46%	36%-120%

Project: Empire ABO Plant

Service Request No.: NM000542

- (a) Elevated MRL's because a smaller than standard amount of sample was extracted to alleviate matrix interferences.
 (b) Results are from a 1:10 dilution.
 (c) Outside of acceptance limits due to the presence of interfering chromatographic peaks from non-target compounds.

Surrogate Recoveries: 100% (North Tank), 97% (South Tank), 93% (SSide Compressor), 100% (Compressor Sump), 74% (Lab Blank), 33%-94% (Control Limits)

EP 3545/8270C

mg/kg(ppm)

Surrogate Recoveries:

Sample Name:	North Tank	South Tank	(b) SSide Compressor	(b) Compressor Sump	Lab Blank	Control Limits
Lab Code:	542-1	542-2	542-3	542-4	542-MB	
Analysis Date:	09/25/00	09/25/00	09/25/00	09/25/00	09/25/00	
2-Fluorophenol:	78%	78%	73%	75%	57%	33%-94%
Phenol-d5:	79%	78%	71%	78%	58%	33%-100%
Nitrobenzene-d5:	100%	97%	93%	100%	74%	31%-94%
2-Fluorobiphenyl:	112%	107%	99%	115%(c)	78%	32%-105%
2,4,6-Tribromophenol:	97%	79%	72%	80%	54%	30%-85%
p-Terphenyl-d14:	103%	81%	91%	136%(c)	46%	36%-120%

Signature of *George Friend*
 THIS REPORT HAS NOT BEEN
 SUBJECTED TO FINAL QA/QC
 REVIEW

QA/QC Review

RELEASED BY

DATE

9/28/00

Office of the State Engineer
1000 N. First
Santa Fe, NM 87501
Tel. (505) 748-1283
Fax (505) 748-1284
Email: oseo@state.nm.us

Energy Minerals and Natural Resources Department

Oil Conservation Division

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

SEP 05 2000

Environmental Bureau
Oil Conservation Division

Originated 8/8

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Chaparral
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88231, State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 5801 Lovington Hwy Hobbs, NM 89240	
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 results are generated from Halliburton's Hobbs facility. This waste is generated by the washing of oilfield tools and equipment. Sundance would like to request approval to accept this material into our Parabo Facility.

Estimated Volume 150 bbls. cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 8-8-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environmental Eng. Sp. DATE: 8-24-00
APPROVED BY: Martinez J. Kelly TITLE: Environmental Geologist DATE: 8-5-00

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

COMPANY / GENERATOR Halliburton Energy ServicesADDRESS 5801 Livingston Hwy, Hobbs NM 88240GENERATING SITE SameCOUNTY LA STATE NMTYPE OF WASTE Wash Rack GritESTIMATED VOLUME 150 lbsGENERATING PROCESS Washing of oilfield equipment
Returning from field locations.

REMARKS _____

NMOCD FACILITY Sundance ServicesTRUCKING COMPANY Chaparral

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 261.3.

AGENT Scott Nelson

SIGNATURE

NAME Scott Nelson

PRINTED

ADDRESS 5801 Livingston HwyHobbs NMDATE 8-7-00



CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 401 East Marland, Hobbs, NM 88240
(819) 673-7001 Fax (819) 673-7020 (505) 383-2326 Fax (505) 383-2478

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 1 of 1

Company Name: Halliburton Energy Services		PO #:	
Project Manager: Scott Nelson		Company:	
Address: 5801 Huntington Hwy		Address:	
City: Hobbs State: ZIP: 88240		City:	
Phone #:		State:	
Fax #:		ZIP:	
Project #:		Project Owner:	
Project Name: WASHRACK BIT		Phone #:	
Project Location: HALLIBURTON YARD		Fax #:	
Matrix:		PCE:	
LAB ID:		Sample ID:	
H4530-1 E. & W. Comp. C2		12/21 2:15	
DATE		TIME	
12/21		2:15	
X		TCP COMPLETE	
ANALYSIS REQUEST			
Delivered By: (Circle One)		Checked By: (Initials)	
Sample - UPS - Bus - Other:			
Received By: (Lab Staff)			
Date:		Time:	
12/21		2:15	
Phone #:		Fax #:	
Address:		City:	
State:		ZIP:	
Matrix:		PCE:	
LAB ID:		Sample ID:	
H4530-1 E. & W. Comp. C2		12/21 2:15	
DATE		TIME	
12/21		2:15	
X		TCP COMPLETE	
ANALYSIS REQUEST			

† Cardinal cannot accept verbal changes. Please fax written changes to 819-673-7020.



ARDINAL LABORATORIES

PHONE (916) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 383-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 382-7082

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/GP

TCLP METALS

JAN 01 10 00 AM '00 FROM: CUST. SVC. CTR. MIDLAND

ID: 3155884581

PAGE 12/11

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
---------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------	-----------

ANALYSIS DATE:	12/23/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/23/99
EPA LIMITS:	6	5	100	1	5	5	0.2	1	
H4530-1 EAST & WEST	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1	
WASHRACK COMP									
Quality Control	0.183	4.759	51.10	1.002	5.058	5.045	0.00365	0.053	
True Value QC	0.200	5.000	50.00	1.000	5.000	5.000	0.00400	0.050	
% Recovery	97	95	102	100	101	101	89	106	
Relative Standard Deviation	4.3	0.2	1.7	0.2	0.8	0.6	1.3	0.2	

METHODS: EPA 1311, 600/4-91/01	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
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Amy Hill
Chemist

12/23/99
Date

H4530M.XLS

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PHONE (806) 593-2329 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/28/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

REACTIVITY

LAB NUMBER SAMPLE ID **Guilide** **Cyanide** **CORROSIVITY** **IGNITABILITY**
(ppm) (ppm) (pH) (°F)

ANALYSIS DATE:	12/22/99	12/23/99	12/28/99	12/28/99
H4530-1 EAST & WEST	Not reactive	Not reactive	7.68	>140
WASHRACK COMP				
Quality Control	NR	NR	7.03	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Burgess J. L. Corrae
Chemist

12/28/99
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H4530-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.006	12	0.050
1,4-Dichlorobenzene	7.50	0.024	0.005	0.036	72	0.050
o-Cresol	200	<0.020	<0.005	0.017	34	0.050
m, p-Cresol	200	<0.020	<0.005	0.017	34	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.027	54	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.034	68	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.034	68	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.032	64	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.036	72	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	90	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.044	88	0.050
Pentachlorophenol	100	<0.020	<0.005	0.040	80	0.050

	% RECOVERY
Fluorophenol	48
Phenol-d5	47
Nitrobenzene-d5	52
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	62
Terphenyl-d14	75

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke, Ph. D.

Deutscher

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CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4530-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.097	97	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.086	86	0.100
Chloroform	6.0	<0.005	<0.005	0.097	97	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.103	103	0.100
Benzene	0.5	<0.005	<0.005	0.087	87	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.112	112	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.114	114	0.100
Chlorobenzene	100	<0.005	<0.005	0.102	102	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

% RECOVERY

Dibromofluoromethane	113
Toluene-d8	112
Bromofluorobenzene	111

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

12/25/99
Date

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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

Originated 8/8/

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ 8-9-00	4. Generator Halliburton
Verbal Approval Received: Yes ☒ No ☐	5. Originating Site Baroid yard
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 400 N. Ruth Monahans, 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 results are from Halliburton Energy's Monahans yard. This material is from old tanks located in this yard with drill cuttings. I have included a certificate of waste status and chain of custody. Sundance Services would like approval to accept this material into our facility.

Note; This yard is ready to be hauled off, we would like to request verbal approval on this material.

Estimated Volume 900 yard cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 8-8-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ Eng. Specialist DATE: 8-11-00
APPROVED BY: Monty J. Kniff TITLE: Environmental Geologist DATE: 8-15-00

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: N.L. Beroid Drilling Fluids. Monahans, Ta. you
SOURCE: Oil Base Drilling Mud Cuttings (Dry)
DISPOSAL LOCATION: SUNDANCE SERVICES 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 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
concur with the status of the waste from the subject site.

Halliburton Energy Services/
N.L. Beroid Drilling Fluids

Name

W. Dee Whatley

Title/Agency

V.P./Operations Manager - SE SI

Address

703 E. Clinton Suite 103
Hobbs, NM 88240

Signature

W. Dee Whatley

Date

8-8-00

0 West I-20 East Odessa, Texas 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

- * Composite 3 samples into 1

(EX-11 - 15th Aug)

Monahan Contract

P.1

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

4C construction 943-3509
MIKE 943-5199

CWIC - 561-5556

JAMES - Foreman

HALLIBURTON ENERGY SERVICES
ATTN: MR. DWIGHT INMAN
4000 N. BIG SPRING, STE. 400
MIDLAND, TEXAS 79705
FAX: 915-685-4590 (Sherman Pierce)

Sample Type: Soils / Sludge Composite
Sample Condition: Intact
Project #: HES- Baroid
Project Name: None Given
Project Location: Monahan Mud Plant

Sampling Date: 07/25/00
Receiving Date: 07/25/00
Analysis Date: 07/28 & 08/02/00

TCLP METALS (mg/L)

ELT#	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
	EPA LIMIT	5.00	5.00	100.0	1.00	5.00	0.20	5.00	1.00
28564	Composite	0.01	<0.002	0.73	0.013	<0.03	<0.002	0.18	<0.002

REPORTING LIMIT 0.01 0.002 0.10 0.005 0.03 0.002 0.10 0.002

% INSTRUMENT ACCURACY 90 108 98 99 95 104 104 104
% EXTRACTION ACCURACY 106 109 104 95 94 101 98 93

METHODS: EPA SW 846-1311, 7760, 7082, 7080, 7130, 7190, 7470, 7420, 7742


Ralund K. Tuttle

8-3-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALIBURTON ENERGY SERVICES
ATTN: MR. DWIGHT INMAN
4000 N. BIG SPRING, STE. 400
MIDLAND, TEXAS 79705
FAX: 915-685-4590 (Sherman Pierce)

Sample Type: Soils/ Sludge Composite
Sample Condition: Intact
Project #: HES-Barold
Project Name: None Given
Project Location: Monahans Mud Plant

Sampling Date: 07/25/00
Receiving Date: 07/25/00
Analysis Date: 07/25/00

ELT#	FIELD CODE	TPH (mg/kg)
28684	Composite	202000

QUALITY CONTROL	382
TRUE VALUE	400
% PRECISION	98
BLANK	<10

Methods: EPA 418.1

Roland K. Tuttle
Roland K. Tuttle

8-3-00
Date



2111 Beechwood, Abilene, TX 79603

101 East Maryland, Hobbs, NM 88240

(915) 673-7001 Fax (915) 673-7020 (505) 383-2326 Fax (505) 383-2476

Page 1 of 1

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: SESI		PO #:	
Project Manager: D. Whitley		Company:	
Address: 703 E Clinton		City:	
City: HOBBS State: NM Zip: 88240		Address:	
Phone #: 393-4388		City:	
Fax #: 393-4388		State: NM Zip: 88240	
Project Name: Radio Yard		Phone #:	
Project Location: Mohabbs		Fax #:	
LAB ID: Sample L.D.		DATE	
LAB ID: 4415-1 Thole 19-24 (Comp)		DATE	
☐ GRAB OR (COMP.) ☐ CONTAINERS ☐ GROUNDWATER ☐ WASTEWATER ☐ SOIL ☒ SLUDGE ☐ OTHER:		☐ ACID ☐ ICE / COOL ☐ OTHER:	
☐ PREP. ☐ SAMPLING		DATE	
RECEIVED BY: TCCLP/No Pest.icides & RADIONUCLIDES DATE: 10-25-91 TIME: 9:10 AM		RECEIVED BY: TCCLP/No Pest.icides & RADIONUCLIDES DATE: 10-25-91 TIME: 9:10 AM	

† Cardinal cannot accept verbal changes. Please fax written changes to 313-673-7820.



PHONE (815) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2325 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E. CLINTON, #103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 10/25/99
Reporting Date: 10/28/99
Project Number: NOT GIVEN
Project Name: BAROID YARD
Project Location: MONAHAN, TX

Sampling Date: 10/25/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: GP/AH

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		10/27/99	10/27/99	10/28/99	10/27/99	10/28/99	10/27/99	10/28/99	10/27/99
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H4415-1	TANK 18-24 COMP.	<1	<1	<25	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.201	1.098	50.12	1.138	1.850	4.850	0.0093	0.052
True Value QC		0.200	1.000	50.00	1.000	2.000	5.000	0.0100	0.050
% Recovery		101	110	100	114	93	97	93	104
Relative Standard Deviation		2.3	0.6	1.0	1.3	0.6	0.6	7.9	0.7
METHODS: EPA 1311, 600/4-91/01		208.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Gayle A. Potter
Gayle A. Potter, Chemist

10/28/99
Date

H4415MXL8

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PHONE (818) 678-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E. CLINTON, #103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 10/25/99
 Reporting Date: 10/28/99
 Project Number: NOT GIVEN
 Project Name: BAROID YARD
 Project Location: MONAHANS, TX

Sampling Date: 10/25/99
 Sample Type: SLUDGE
 Sample Condition: COOL & INTACT
 Sample Received By: AH
 Analyzed By: AH/BC

LAB NUMBER SAMPLE ID	REACTIVITY			
	Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:	10/26/99	10/26/99	10/28/99	10/28/99
H4415-1 TANK 19-24	Not reactive	Not reactive	6.70	Nonflammable
COMPOSITE				
Quality Control	NR	NR	7.01	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0.4	NR

METHOD: EPA SW 846-7.3, 7.2, 1030 (proposed), 1311, 40 CFR 261

Dee Whatley
 Chemist

10/28/99
 Date

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 PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
 SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
 ATTN: DEE WHATLEY
 703 E. CLINTON, #103
 HOBBS, NM 88240
 FAX TO: (505) 393-4388

Receiving Date: 10/25/99
 Reporting Date: 10/27/99
 Project Number: NOT GIVEN
 Project Name: BAROID YARD
 Project Location: MONAHAN, TX
 Lab Number: H4415-1
 Sample ID: TANK 18-24 COMPOSITE

Analysis Date: 10/26/99
 Sampling Date: 10/25/99
 Sample Type: SLUDGE
 Sample Condition: COOL & INTACT
 Sample Received By: AH,
 Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H4415-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.008	12	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.018	36	0.050
m, p-Cresol	200	<0.020	<0.005	0.014	28	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.024	48	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.037	74	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.033	66	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.032	64	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.036	72	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.039	78	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.047	94	0.050
Pentachlorophenol	100	<0.020	<0.005	0.039	78	0.050

% RECOVERY

Fluorophenol	21
Phenol-d5	17
Nitrobenzene-d5	60
2-Fluorobiphenyl	69
2,4,6-Tribromophenol	64
Terphenyl-d14	88

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke
 Burgess J. A. Cooke, Ph. D.

10/25/99
 Date

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PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 383-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E. CLINTON, #103
HOBBS, NM 88240
FAX TO: (505) 383-4388

Receiving Date: 10/25/99
Reporting Date: 10/27/99
Project Number: NOT GIVEN
Project Name: BAROID YARD
Project Location: MONAHANS, TX
Lab Number: H4415-1
Sample ID: TANK 19-24 COMPOSITE

Analysis Date: 10/26/99
Sampling Date: 10/25/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4415-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.083	83	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.098	98	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.087	87	0.100
Chloroform	5.0	<0.005	<0.005	0.098	98	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	0.010	<0.005	0.095	95	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.107	107	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.097	97	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.092	92	0.100
Chlorobenzene	100	<0.005	<0.005	0.093	93	0.100
1,4-Dichlorobenzene	7.5	0.005	0.005	0.097	97	0.100

% RECOVERY

Dibromofluoromethane	97
Toluene-d8	99
Bromofluorobenzene	87

METHODS: EPA SW 846-8260, 1311

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

10/28/99
Date

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WED 13:47

SUNDANCE SERVICES INC

FAX NO. 5053942590

P. 02

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

Originated 8/8

Submit Origin
 Plus 1 Co
 to appropriate
 District Off

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ 8-9-00 Verbal Approval Received: Yes ☒ No ☐ myk	4. Generator Halliburton
2. Management Facility Destination SUNDANCE SERVICES INC.	5. Originating Site Baroid yard
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318, State NEW MEXICO	6. Transporter unknown
7. Location of Material (Street Address or ULSTR) 400 N. Ruth	Monahans, 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 results are from Halliburton Energy's Monahans yard. This material is from old tanks located in this yard with drill cuttings. I have included a certificate of waste status and chain of custody. Sundance Services would like approval to accept this material into our facility.

Note: This yard is ready to be hauled off, we would like to request verbal approval on this material.

Please Send originals through for Signature myk

Estimated Volume 900 yard cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 8-8-00
 Waste Management Facility Authorized Agent
 TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: TITLE: DATE:

APPROVED BY: Martin J. Kuh TITLE: Environmental Geologist DATE: 8-9-00

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: N.L. Broad Drilling Fluids. Monahans, TX
SOURCE: Oil Base Drilling Mud Cuttings (Dry)
DISPOSAL LOCATION: SUNDANCE SERVICES INC.

As a condition of acceptance for disposal, I hereby certify that this waste is a non-hazardous 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
concur with the status of the waste from the subject site.

Halliburton Energy Services/
N.L. Broad Drilling Fluids

Name

W. Dee Whalley

Title/Agency

V.P./Operations Manager - SE SI

Address

703 E. Clinton Suite 103
Hobbs, NM 88240

Signature

W. Dee Whalley

Date

8-8-00

Aug 09 00:02:23p

Environmental Lab of Texas, Inc. 12600 West 150th Road, Odessa, Texas 79763

NO W/ret 1-20 Best Orders, Times 79763
(915) 563-1800 FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

[illegible]

AUG- 9-00 WED 13:49

08/09/00 04:40 FAX
Aug 03 00:02:23p

SUNDANCE SERVICES INC

FAX NO. 5053942590

P.05

P.1

(62411 - 15TH Aug)

Monahans Contract

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt"

4C Construction 943-3509
MIKE 943-5189
CWIC - 561-5556

James - Foreman

HALLIBURTON ENERGY SERVICES
ATTN: MR DWIGHT INMAN
4000 N. BIG SPRING, STE. 400
MIDLAND, TEXAS 79705
FAX: 915-688-4590 (Sherman Pierce)

Sample Type: Soils / Sludge Composite
Sample Condition: Intact
Project #: HES- Barnid
Project Name: None Given
Project Location: Monahans Mud Plant

Sampling Date: 07/25/00
Receiving Date: 07/25/00
Analysis Date: 07/28 & 08/02/00

TCLP METALS (mg/L)

ELT#	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
	EPA LIMIT	5.00	5.00	100.0	1.00	5.00	0.20	5.00	1.00
28564	Composite	0.01	<0.002	0.73	0.013	<0.03	<0.002	0.18	<0.002

REPORTING LIMIT 0.01 0.002 0.10 0.005 0.03 0.002 0.10 0.002

% INSTRUMENT ACCURACY 90 108 98 99 95 104 104 104
% EXTRACTION ACCURACY 105 109 104 95 94 101 98 93

METHODS: EPA SW 846-1511, 7780, 7082, 7080, 7190, 7190, 7470, 7420, 7742

Roland K. Tuttle
Roland K. Tuttle

8-3-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALIBURTON ENERGY SERVICES
ATTN: MR. DWIGHT INMAN
4000 N. BIG SPRING STE. 400
MIDLAND, TEXAS 79705
FAX: 815-688-4590 (Sherman Pierce)

Sample Type: Soils/ Sludge Composite
Sample Condition: Intact
Project #: HES-Baroid
Project Name: None Given
Project Location: Monahans Mud Plant

Sampling Date: 07/25/00
Receiving Date: 07/25/00
Analysis Date: 07/26/00

ELT#	FIELD CODE	TPH (mg/kg)
28684	Composite	202000

QUALITY CONTROL	382
TRUE VALUE	400
% PRECISION	96
BLANK	<10

Methods: EPA 418.1

Roland K. Tuttle
Roland K. Tuttle

8-3-00
Date



2114 Beechwood, Abilene, TX 79603 101 East Wierland, Hobbs, NM 88240
(816) 673-7001 Fax (816) 675-7020 (505) 383-2336 Fax (505) 383-2476

ARJUNAL LABORATORIES, INC.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 7 of 1[illegible]


**CARDINAL
LABORATORIES**

PHONE (515) 875-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E. CLINTON, #103
HOBBS, NM 88240
FAX TO: (505) 393-4388**

Receiving Date: 10/25/99
Reporting Date: 10/28/99
Project Number: NOT GIVEN
Project Name: BARGE YARD
Project Location: MCNAHAN, TX

Sampling Date: 10/25/99
Sample Type: BLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: GP/AH

TCLP METALS

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Sa ppm
ANALYSIS DATE:		10/27/99	10/27/99	10/28/99	10/27/99	10/28/99	10/27/99	10/28/99	10/27/99
EPA LIMITS:		6	5	100	1	6	5	0.2	1
H4415-1	TANK 1B-24 COMP.	<1	<1	<25	<0.1	<1	<1	<0.02	<0.1
Quality Control		0.201	1.098	50.12	1.138	1.850	4.850	0.0083	0.052
True Value QC		0.200	1.000	50.00	1.000	2.000	5.000	0.0100	0.050
% Recovery		101	110	100	114	93	97	83	104
Relative Standard Deviation		2.9	0.6	1.0	1.3	0.6	0.6	7.9	0.7

METHODS: EPA 1311, 600/4-91/01	208.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
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Gayle A. Potter
Gayle A. Potter, Chemist

10/28/99
Date

H4415MXLB

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PHONE (505) 393-2325 • 101 E. MARLAND • HOBBS, NM 88240

**ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.**

ATTN: DEE WHATLEY

703 E. CLINTON, #103

HOBBS, NM 88240

FAX TO: (505) 393-4388

Receiving Date: 10/25/99

Reporting Date: 10/28/99

Project Number: NOT GIVEN

Project Name: BAROID YARD

Project Location: MONAHANS, TX

Sampling Date: 10/25/99

Sample Type: SLUDGE

Sample Condition: COOL & INTACT

Sample Received By: AH

Analyzed By: AH/BC

LAB NUMBER SAMPLE ID	REACTIVITY			
	Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:	10/28/99	10/28/99	10/28/99	10/28/99
H4415-1 TANK 19-24 COMPOSITE	Not reactive	Not reactive	6.70	Nonflammable
Quality Control	NR	NR	7.01	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0.4	NR

METHOD: EPA SW 846-7.3, 7.2, 1030 (proposed), 1311, 40 CFR 261

Dee Whatley
Chemist

10/28/99
Date

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ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E CLINTON, #103
HOBBS, NM 88240
FAX TO: (505) 393-4388

Receiving Date: 10/26/99
Reporting Date: 10/27/99
Project Number: NOT GIVEN
Project Name: BAROID YARD
Project Location: MONAHANS, TX
Lab Number: H4415-1
Sample ID: TANK 18-24 COMPOSITE

Analysis Date: 10/26/99
Sampling Date: 10/26/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H4415-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	8.00	<0.020	<0.005	0.005	12	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.030	60	0.050
o-Cresol	200	<0.020	<0.005	0.018	38	0.050
m, p-Cresol	200	<0.020	<0.005	0.014	28	0.050
Heptachloroethane	3.00	<0.020	<0.005	0.024	48	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.037	74	0.050
Heptachloro-1,3-butadiene	0.500	<0.020	<0.005	0.039	68	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.032	64	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.035	72	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.039	78	0.050
Heptachlorobenzene	0.130	<0.020	<0.005	0.047	64	0.050
Pentachlorophenol	100	<0.020	<0.005	0.039	78	0.050

% RECOVERY

Fluorophenol	21
Phenol-d5	17
Nitrobenzene-d5	60
2-Fluorobiphenyl	69
2,4,6-Trichlorophenol	64
Terphenyl-d14	68

METHODS: EPA SW 846-8270, 1311

Burgess J. A. Cooke, Ph. D.
Burgess J. A. Cooke, Ph. D.

10/26/99
Date

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PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79803

PHONE (505) 383-2325 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DEE WHATLEY
703 E. CLINTON, #103
HOBBS, NM 88240
FAX TO: (505) 383-4368

Receiving Date: 10/25/99
Reporting Date: 10/27/99
Project Number: NOT GIVEN
Project Name: BAROID YARD
Project Location: MONAHANS, TX
Lab Number: H4415-1
Sample ID: TANK 1R-24 COMPOSITE

Analysis Date: 10/28/99
Sampling Date: 10/25/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4415-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.083	83	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.098	98	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.087	87	0.100
Chloroform	6.0	<0.005	<0.005	0.098	98	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.098	98	0.100
Benzene	0.5	0.010	<0.005	0.085	85	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.107	107	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.097	97	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.092	92	0.100
Chlorobenzene	100	<0.005	<0.005	0.083	83	0.100
1,4-Dichlorobenzene	7.5	0.005	0.005	0.087	87	0.100

% RECOVERY

Dibromofluoromethane	97
Toluene-d8	99
Bromofluorobenzene	97

METHODS: EPA SW 846-8260, 1311

Burgess A. Cooke
Burgess A. Cooke, Ph.D.

10/28/99
Date

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001, 1111 00271-1700
District II - (505) 748-1283
S. First
Alamogordo, NM 88210
District III - (505) 334-6178
100 Rio Brazos Road
Alamogordo, 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 14 2000

Environmental Bureau
Oil Conservation Division

Originated 8/8/

Submit Origin
Plus 1 Co
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Chaparral
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 5801 Lovington Hwy Hobbs, NM 89240	
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 results are generated from Halliburtons Hobbs facility. This waste is generated by the washing of oilfield tools and equipment. Sundance would like to request approval to accept this material into our Parabo Facility.

Estimated Volume 150 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna Roach TITLE: OFFICE MGR DATE: 6-6-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Engineer Specialist DATE: 06-09-00
APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 06-08-00

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

COMPANY / GENERATOR Halliburton Energy ServicesADDRESS 5801 Lovington Hwysame GENERATING SITE Hobbs NmCOUNTY Lea STATE NMTYPE OF WASTE Wash rack GritESTIMATED VOLUME 100 BbGENERATING PROCESS Washing of oilfield equipment
Return from Oil Field locationsREMARKS Testing on file 1-21-00NMOCD FACILITY SundanceTRUCKING COMPANY Chaparral

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 261.3.

AGENT Scott NelsonNAME Scott NelsonADDRESS 5801 Lovington HwyHobbs, NM 88240DATE 6-6-00



2111 Beechwood, Abilene, TX 79605 401 East Marland, Hobbs, NM 88240

(815) 673-7001 Fax (815) 673-7020 (505) 383-2326 Fax (505) 383-2478

Page 2

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



PHONE (915) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7082

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/GP

TCLP METALS

JAN 01 1999 00:10 FROM: CUST. SVC. CTR. MIDLAND ID: B132264551 PAGE: 2/10
LAB NO. SAMPLE ID As Ag Ba Cd Cr Pb Hg Se

ppm ppm ppm ppm ppm ppm ppm ppm

ANALYSIS DATE:	12/23/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/23/99
EPA LIMITS:	6	5	100	1	5	5	0.2	1
H4530-1 EAST & WEST	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
WASHRACK COMP								
Quality Control	0.183	4.759	51.10	1.002	5.058	5.045	0.00355	0.053
True Value QC	0.200	5.000	50.00	1.000	5.000	5.000	0.00400	0.050
% Recovery	97	95	102	100	101	101	89	106
Relative Standard Deviation	4.3	0.2	1.7	0.2	0.8	0.6	1.3	0.2

METHODS: EPA 1311, 600/4-91/01	206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2
--------------------------------	-------	-------	-------	-------	-------	-------	-------	-------

Amy Hill
Chemist

12/23/99
Date

H4530MLXLS

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PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/28/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

REACTIVITY

LAB NUMBER SAMPLE ID Sulfide (ppm) Cyanide (ppm) CORROSIVITY (pH) IGNITABILITY (°F)

ANALYSIS DATE:	12/22/99	12/23/99	12/28/99	12/28/99
H4530-1 EAST & WEST	Not reactive	Not reactive	7.68	>140
WASHRACK COMP				
Quality Control	NR	NR	7.03	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Burgess J. L. Carter
Chemist

12/28/99
Date

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 382-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

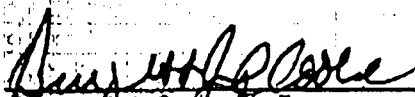
TCPL SEMIVOLATILES (ppm) EPA LIMIT Sample Result H4530-1 Method Blank ID: 5155254531 True Value QC % Recov. QC

Pyridine	6.00	<0.020	<0.005	0.006	12	0.050
1,4-Dichlorobenzene	7.50	0.024	0.005	0.036	72	0.050
o-Cresol	200	<0.020	<0.005	0.017	34	0.050
m, p-Cresol	200	<0.020	<0.005	0.017	34	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.027	64	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.034	68	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.034	68	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.032	64	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.036	72	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.046	90	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.044	88	0.050
Pentachlorophenol	100	<0.020	<0.005	0.040	80	0.050

% RECOVERY

Fluorophenol	48
Phenol-d5	47
Nitrobenzene-d5	62
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	62
Terphenyl-d14	75

METHODS: EPA 8W 846-8270, 1311, 3510


Burgess A. Cooke, Ph. D.

12/25/99
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
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

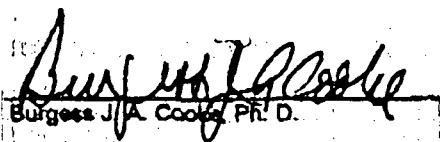
JPM 11-200-00-10 WASH RACK GRIT HOBBS NM 88240 H4530-1 12/23/99 10:10 AM PAGE 10/10

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4530-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.097	97	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.086	86	0.100
Chloroform	6.0	<0.005	<0.005	0.087	97	0.100
1,2-Dichloroethane	0.6	<0.005	<0.005	0.103	103	0.100
Benzene	0.5	<0.005	<0.005	0.087	87	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.112	112	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.088	88	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.114	114	0.100
Chlorobenzene	100	<0.005	<0.005	0.102	102	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

% RECOVERY

Dibromofluoromethane	113
Toluene-d8	112
Bromofluorobenzene	111

METHODS: EPA SW 846-8260, 1311


Burgess J. A. Cooke, Ph. D.

12/28/99
Date

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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

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Baker Atlas
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318, State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 1718 S. Dal Paso Hobbs, NM 88240	
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 results are from Baker Atlas Hobbs facility. This waste is generated by the washing of oilfield equipment and tools. I have included a certificate of waste status and chain of custody. Sundance would like approval to accept this material into our Parabo Facility.

RECEIVED

MAY 03 2000

Environmental Bureau
Oil Conservation Division

Estimated Volume 500 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 4-19-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 4-21-00
APPROVED BY: Monty J. Kelly TITLE: Environmental Geologist DATE: 5/3/00

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: Baker Atlas Hobbs NM
SOURCE: Wash rack sump Holding tank
DISPOSAL LOCATION: SUNDANCE SERVICES 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 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 Baker Atlas NM
concur with the status of the waste from the subject site.

Name: Jerry L. Antese
Title/Agency: Engineer In Charge

Address: 1718 S Dal Paso
Hobbs NM 88240

Signature: [Signature]

Date: 4-20-2008



2111 Beechwood, Abilene, TX 79803

101 East Maryland, Hobbs, NM 88240

(815) 673-7001 Fax (815) 673-7020
(505) 393-2326 Fax (505) 393-2476

(505) 393-2328 Fax (505) 393-2478

Page 1 of 1

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: BAKER ATLAS		PO #:	
Project Manager: JOHN J. HILL			
Address: 1718 S. DAL PASO		Company:	
City: HOBBS State: NM ZIP: 88240		Address:	
Phone #: 393-4181		City:	
Fax #:		State:	
Project #: 5000		ZIP:	
Project Name: SUMP		Phone #:	
Project Location: DAL PASO 4AED		Fax #:	
FOR LAB USE ONLY			
LAB I.D.	Sample I.D.	(G)RAB OR (C)OMP.	
H4749-1 Sump		# CONTAINERS	
		GROUNDWATER	
		WASTEWATER	
		SOIL	
		OIL	
		SLUDGE	
		OTHER:	
		ACID:	
		ICE / COOL	
		OTHER:	
		DATE	
		TIME	
		TCLP complex	

Revised By: **John Hill**

Checked By: **John Hill**

Sample Conditions: **Good** ☒ **Bad** ☐ **Other** ☐

Remarks: **3/24/00**

† Cardinal cannot accept verbal changes. Please fax written changes to 916-673-7020.



CARDINAL LABORATORIES

PHONE (815) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR BAKER ATLAS ATTN: JERRY ANTE 1718 S. DAL PASO HOBBS, NM 88240 FAX TO:

Receiving Date: 03/29/00
Reporting Date: 03/31/00
Project Owner: NOT GIVEN
Project Name: SUMP
Project Location: DAL PASO YARD
Lab Number: H4749-1
Sample ID: SUMP

Analysis Date: 03/30/00
Sampling Date: 03/29/00
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH/GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H4749-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	5.00	<0.020	<0.005	0.004	8	0.050
1,4-Dichlorobenzene	7.50	<0.020	<0.005	0.037	74	0.050
o-Cresol	200	<0.020	<0.005	0.023	46	0.050
m, p-Cresol	200	0.024	<0.005	0.021	42	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.036	72	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.040	80	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	0.048	96	0.050
2,4,6-Trichlorophenol	400	<0.020	<0.005	0.049	98	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.050	100	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.059	118	0.050
Pentachlorophenol	100	<0.020	<0.005	0.052	104	0.050

% RECOVERY

Fluorophenol	37
Phenol-d5	34
Nitrobenzene-d5	91
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	86
Terphenyl-d14	111

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. Ag Cooke/Ph. D.

Date: 3/31/00

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PHONE (805) 393-2325 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER ATLAS
ATTN: JERRY ANTE
1718 S. DAL PASO
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/28/00
Reporting Date: 04/07/00
Project Number: NOT GIVEN
Project Name: SUMP
Project Location: DAL PASO YARD

Sampling Date: 03/28/00
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH/GP
Analyzed By: AH

TCLP METALS

LAB NO. SAMPLE ID As ppm Ag ppm Ba ppm Cd ppm Cr ppm Pb ppm Hg ppm Se ppm

ANALYSIS DATE:	04/07/00	04/08/00	04/08/00	04/08/00	04/08/00	04/08/00	03/30/00	04/07/00
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H4749-1 SUMP	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
Quality Control	0.181	1.015	23.63	0.971	4.922	6.002	0.0055	0.057
True Value QC	0.200	1.000	25.00	1.000	5.000	6.000	0.0060	0.050
% Recovery	91	102	98	97	98	100	92	114
Relative Standard Deviation	3.3	1.4	2.3	0.2	4.4	0.9	9.0	4.0

METHODS: EPA 1311, 600/4-91/ 208.2 272.1 208.1 213.1 218.1 239.1 245.1 270.2

Amy Hill
Chemist

4/7/00
Date

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PHONE (815) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 383-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER ATLAS
ATTN: JERRY ANTE
1718 S. DAL PASO
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/29/00
Reporting Date: 04/08/00
Project Owner: NOT GIVEN
Project Name: SUMP
Project Location: DAL PASO YARD

Sampling Date: 03/29/00
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: AH/GP
Analyzed By: AH/BC

LAB NUMBER	SAMPLE ID	REACTIVITY			
		Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY (°F)
ANALYSIS DATE:		04/04/00	04/04/00	04/07/00	04/07/00
H4749-1	SUMP	Not reactive	Not reactive	7.43	>140
Quality Control		NR	NR	6.98	NR
True Value QC		NR	NR	7.00	NR
% Recovery		NR	NR	99.7	NR
Relative Percent Difference		NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Chemist

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.



PHONE (815) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (805) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
BAKER ATLAS
ATTN: JERRY ANTE
1718 S. DAL PASO
HOBBS, NM 88240
FAX TO:

Receiving Date: 03/29/00
 Reporting Date: 03/31/00
 Project Owner: NOT GIVEN
 Project Name: SUMP
 Project Location: DAL PASO YARD
 Lab Number: H4749-1
 Sample ID: SUMP

Analysis Date: 03/30/00
 Sampling Date: 03/29/00
 Sample Type: SLUDGE
 Sample Condition: COOL & INTACT
 Sample Received By: AH/GP
 Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4749-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.083	83	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.093	93	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.087	87	0.100
Chloroform	6.0	<0.005	<0.005	0.097	97	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.099	99	0.100
Benzene	0.5	<0.005	<0.005	0.101	101	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.101	101	0.100
Trichloroethylene	0.5	0.015	<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	0.100	100	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.100	100	0.100

% RECOVERY

Dibromofluoromethane	89
Toluene-d8	100
Bromofluorobenzene	92

METHODS: EPA SW 846-8260, 1311

APR 20 '00 08:48AM BAKER ATLAS OH HOBBS NM
 APR 20 '00 08:48AM BAKER ATLAS OH HOBBS NM
 APR 20 '00 08:48AM BAKER ATLAS OH HOBBS NM

Burgess J. A. Cooke
 Burgess J. A. Cooke, Ph. D.

3/31/00
 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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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 appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Chaparral
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 5801 Lovington	on Hwy Hobbs, NM 89240
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 results are generated from Halliburtons Hobbs facility. This waste is generated by the washing of oilfield tools and equipment. Sundance would like to request approval to accept this material into our Parabo Facility.

Estimated Volume 150 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 2-29-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 4-13-00
APPROVED BY: Matthew J. Kelly TITLE: Environmental Geologist DATE: 4-13-00

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

COMPANY / GENERATOR Halliburton Energy Services
ADDRESS 5801 Livingston Hwy Hobbs NM 88240
GENERATING SITE Same

COUNTY Lea STATE NM

TYPE OF WASTE Wash pack Gent

ESTIMATED VOLUME 150 Bbls

GENERATING PROCESS Washing of oilfield equipment
Return from field locations

REMARKS N/A

NMOCD FACILITY Sundance

TRUCKING COMPANY Chaparral

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 Livingston Hwy

Hobbs NM

DATE 2-28-2000



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/GP

TCLP METALS

JAN-01-00 08:10 FROM: CUST. SVC. CTR. MIDLAND

ID: 9158884591

PAGE 7/10

LAB NO.	SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:		12/23/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/22/99	12/23/99
EPA LIMITS:		5	5	100	1	5	5	0.2	1
H4530-1	EAST & WEST	<1	<1	<5	<0.1	<1	<1	<0.02	<0.1
	WASHRACK COMP								
Quality Control		0.193	4.759	51.10	1.002	5.058	5.045	0.00355	0.053
True Value QC		0.200	5.000	50.00	1.000	5.000	5.000	0.00400	0.050
% Recovery		97	95	102	100	101	101	89	106
Relative Standard Deviation		4.3	0.2	1.7	0.2	0.8	0.6	1.3	0.2
METHODS: EPA 1311, 600/4-81/01		206.2	272.1	208.1	213.1	218.1	239.1	245.1	270.2

Amy Hill
Chemist

12/23/99
Date

H4530M.XLS

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/28/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS

Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

REACTIVITY
LAB NUMBER SAMPLE ID Sulfide (ppm) Cyanide (ppm) CORROSIVITY (pH) IGNITABILITY (°F)

ANALYSIS DATE:	12/22/99	12/23/99	12/28/99	12/28/99
H4530-1 EAST & WEST	Not reactive	Not reactive	7.68	>140
WASHRACK COMP				
Quality Control	NR	NR	7.03	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	100	NR
Relative Percent Difference	NR	NR	0	NR

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Burgess J. R. Collins
Chemist

12/28/99
Date

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ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H4530-1	Method Blank	QC	% Recov.	True Value QC
Pyridine	6.00	<0.020	<0.005	0.006	12	0.050
1,4-Dichlorobenzene	7.50	0.024	0.005	0.036	72	0.050
o-Cresol	200	<0.020	<0.005	0.017	34	0.050
m, p-Cresol	200	<0.020	<0.005	0.017	34	0.050
Hexachloroethane	3.00	<0.020	<0.005	0.027	54	0.050
Nitrobenzene	2.00	<0.020	<0.005	0.034	68	0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005	0.034	68	0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005	0.032	64	0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005	0.036	72	0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005	0.045	90	0.050
Hexachlorobenzene	0.130	<0.020	<0.005	0.044	88	0.050
Pentachlorophenol	100	<0.020	<0.005	0.040	80	0.050

% RECOVERY

Fluorophenol	48
Phenol-d5	47
Nitrobenzene-d5	52
2-Fluorobiphenyl	60
2,4,6-Tribromophenol	62
Terphenyl-d14	75

METHODS: EPA SW 846-8270, 1311, 3510

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

12/25/99
Date

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CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
6801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/21/99
Reporting Date: 12/23/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, HOBBS
Lab Number: H4530-1
Sample ID: EAST & WEST WASHRACK COMP.

Analysis Date: 12/23/99
Sampling Date: 12/21/99
Sample Type: SLUDGE
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4530-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.097	97	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.086	86	0.100
Chloroform	6.0	<0.005	<0.005	0.097	97	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.103	103	0.100
Benzene	0.5	<0.005	<0.005	0.097	97	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.112	112	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.114	114	0.100
Chlorobenzene	100	<0.005	<0.005	0.102	102	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

% RECOVERY

Dibromofluoromethane	113
Toluene-d8	112
Bromofluorobenzene	111

METHODS: EPA SW 846-8260, 1311

Burgess J.A. Cooke, Ph.D.
Burgess J.A. Cooke, Ph.D.

12/28/99
Date

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

Originated 8/8

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to appropri
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Environmental Bureau
Oil Conservation Division

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐ 374 2596	5. Originating Site Levelland Te
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) West Hwy 114 Levelland , 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 MSDS sheets are for Dresser Oil Tools (Halliburton) Levelland Texas. This waste water is generated from the washing of oilfield tools. The tools are washed in Safety-Kleen non-hazardous solution. I have attached all MSDS sheets for all soap that is used to wash these tools. Please review to see if this waste would be allowed into our Parabo Facility.

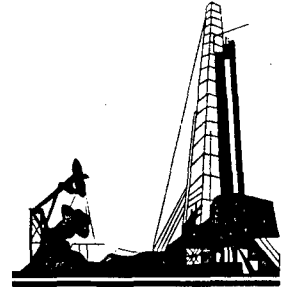
Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: _____
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 03-16-00
APPROVED BY: Martyn J. Kuh TITLE: Environmental Geologist DATE: 03-17-00

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505
(505) 827-7133
Fax: (505) 827-8177



(PLEASE DELIVER THIS FAX)

To: Donna Reich (505) 394-2590 Fax

From: Martynne Kieling (505) 827-7153 ph

Date: 4-10-00

Number of Pages (Includes Cover Sheet) Page 1 of 2

Message: _____

If you have any trouble receiving this, please call:
(505) 827-7133

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Hobbs, NM 88241-1980
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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
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REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐ 394 2596	5. Originating Site Levelland Texas
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) West Hwy 114 Levelland, 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 MSDS sheets are for Dresser Oil Tools (Halliburton) Levelland Texas. This waste water is generated from the washing of oilfield tools. The tools are washed in Safety-Kleen non-hazardous solution. I have attached all MSDS sheets for all soap that is used to wash these tools. Please review to see if this waste would be allowed into our Parabo Facility.

Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: _____
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 03-16-00
APPROVED BY: Monty J. Kelly TITLE: Environmental Geologist DATE: 03-17-00

FAX (915) 563-1713

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

END

Halliburton

Project Name:

Levelland, TX

Sample Paper 51 Grammar

How 114

Kalamand K. J. 1980

[illegible]

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: Halliburton (Dresser Oil Tools

SOURCE: West Hwy 114 Levelland Texas

DISPOSAL LOCATION: Sundance Services 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 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 Halliburton Energy
concur with the status of the waste from the subject site.

Name Stephen Bailey

Title/Agency Halliburton Energy

Address 5801 Lovington Hwy Hobbs, NM 88260

Signature

Stephen W. Bailey

Date

2-4-00

Halliburton Energy Services
P.O. Box 128
W. Highway 114
Levelland, Tx 79336

02 February 2000

To: Sundance Services
1431 Maine
Eunice, NM 88240

Re: Waste Water, Levelland Tx.

Halliburton Energy Services, formerly Dresser Oil Tools in Levelland Tx is currently seeking approval for disposal of our waste water from washing of oil field tools. The tools are washed in Safety-Kleen non-hazardous solution when returned from the field. Tools are then rinsed and cleaned with a pressure washer. The waste water then flows through an oil/water skimmer, ending up in an 5000 gallon open top holding tank. I have attached all MSDS sheets pertaining to Safety Kleen solvent, grease and pipe thread lubricator. Please review this request and advise on any testing that might be needed, if any. If you have any questions, please call Steve Bailey at 505-392-0701.

Stephen W. Bailey
Shared Services Supervisor
Halliburton Energy Services
5801 Lovington Hwy
Hobbs, NM 88240
505-392-0701



ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
6801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7082

Sample Type: Water
Sample Condition: Intact/acid/HCl
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 02/28/00

DATE: 02-28-00 FROM: CUST. SVC. CTR. MIDLAND
ELT# FIELD CODE

TPH 10.8150000001
mg/L

23790 Outside Tank

7

QUALITY CONTROL
TRUE VALUE
% PRECISION
BLANK

367

360

102

<1

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
6801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7082

Methods: EPA 418.1

Sample ID: 10.8150000001
Date: 02/25/00
Analysis Date: 02/28/00

Roland K. Tuttle
Roland K. Tuttle

TPH

mg/L

3-14-00

Date

QUALITY CONTROL
TRUE VALUE
% PRECISION
BLANK

367

360

102

<1

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7082

Sample Type: Water
Sample Condition: Intact/iced
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 3/03 & 3/08/00

TCLP METALS (mg/L)

ELT#	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
	EPA LIMIT	5.00	5.00	100.0	1.00	5.00	0.20	5.00	1.00
23790	Outside Tank	0.02	<0.002	0.20	0.009	<0.03	0.003	<0.10	<0.002

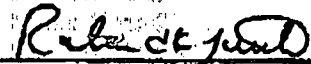
REPORTING LIMIT

0.01 0.002 0.10 0.005 0.03 0.002 0.10 0.002

% INSTRUMENT ACCURACY
% EXTRACTION ACCURACY

99 95 104 100 102 98 98 102
104 94 105 92 97 85 94 95

METHODS: EPA SW 846-1311, 7760, 7062, 7080, 7130, 7180, 7470, 7420, 7742


Raland K. Tuttle

3-KV-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY
HOBBBS, NM 88240
FAX: 505-392-7062

Sample Type: Water
Sample Condition: Intact/ced/HCl
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 03/09/00
Field Code: Outside Tank

MAR-14-00 12:28 FROM: CUST. SVC. CTR. MIDLAND

ID: 8168864581

PAGE 1

TCLP VOLATILES (mg/l)	SAMPLE 28790	PQL	BLANK	%EA	%DEV
1,1-Dichloroethene	ND	0.001	ND	118	-3.1
2-Butanone	ND	0.010	ND		2.9
Chloroform	ND	0.001	ND		-2.0
Benzene	ND	0.001	ND	118	4.9
1,2-Dichloroethane	ND	0.001	ND		3.1
Vinyl Chloride	ND	0.001	ND		3.0
Carbon Tetrachloride	ND	0.001	ND		-5.6
Trichloroethene	ND	0.001	ND	118	-9.3
Tetrachloroethene	ND	0.001	ND		-8.2
Chlorobenzene	ND	0.001	ND	95	-15
1,4-Dichlorobenzene	ND	0.001	ND		-5.5

SYSTEM MONITORING COMPOUNDS

% RECOVERY

dibromofluoromethane

106

toluene-d8

111

4-bromofluorobenzene

116

ND = < PQL

PQL = PRACTICAL QUANTITATION LIMIT

Methods: EPA SW 846-8240, 1311

Roland K. Tuttle
Roland K. Tuttle

3-14-00
Date

12800 West 120 East - Odessa, Texas 79765

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ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBES, NM 88240
FAX: 505-392-7082

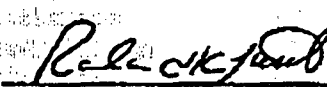
Sample Type: Water
Sample Condition: Intact/iced
Project #: None Given
Project Name: None Given
Project Location: Hwy. 314

Sampling Date: 02/25/00
Receiving Date: 02/25/00
Analysis Date: 03/05/00
Field Code: Outside Tank

TCLP SEMIVOLATILE ORGANICS (mg/L)	REPORTING LIMIT	ELT# 28790
Creosol	<0.040	ND
1,4-Dichlorobenzene	<0.040	ND
2,4-Dinitrotoluene	<0.040	ND
Hexachlorobenzene	<0.040	ND
Hexachlor-1,3-butadiene	<0.040	ND
Hexachloroethane	<0.040	ND
Nitrobenzene	<0.040	ND
Pentachlorophenol	<0.040	ND
Pyridine	<0.040	ND
2,4,5-Trichlorophenol	<0.040	ND
2,4,6-Trichlorophenol	<0.040	ND

ND= NOT DETECTED, < REPORTING LIMIT

Method: SW 846-8270, 1311


Roland K. Tuttle

3-14-00
Date

12600 West Loop East • Addison, Texas 75001 • (972) 500-1000

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBES, NM 88240
FAX: 505-382-7062

Sample Type: Water
Sample Condition: Intact/iced
Project #: None Given
Project Name: None Given
Project Location: Hwy. 114

Sampling Date: 02/25/00
Receiving date: 02/25/00
Analysis Date: See Below

DEC-1-00 12:27 FROM: CUST. SVC. CTR. MIDLAND

ID: 0150004591

PAGE 1 OF 1

ELT#	Field Code	REACTIVITY		CORROSIVITY	IGNITABILITY
		H ₂ S	CN-	(s.u.)	
		NON-REACTIVE	NON-CORROSIVE		
		(ppm)	(ppm)		
23790	Outside Tank	<20.0	<2.0	Non Corrosive 8.00	>200 deg. F

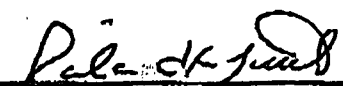
"Don't Treat Your Soil Like Dirt!"

ANALYSIS DATE

3/1/00 3/1/00 2/23/00

3/1/00

ENVIRONMENTAL
LABORATORY
12600 West I-20 East • Odessa, Texas 79765 • (409) 500-1000 • F • (409) 500-1710
METHODS: EPA SW-846-0045, 1010M


Roland K. Tuttle

Date

12600 West I-20 East • Odessa, Texas 79765 • (409) 500-1000 • F • (409) 500-1710

ADDITIONAL INFORMATION

Hobbs, NM 88241-1980
District II - (505) 748-1283
81 N. 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

Submit Origin
Plus 1 Co
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Levelland Texas
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88231	State NEW MEXICO
7. Location of Material (Street Address or ULSTR) West Hwy 114 Levelland, Texas	
9. <u>Circle One</u> : 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 Dresser Oil Tools (Halliburton) Levelland Texas. This waste water is generated from the washing of oilfield tools. The tools are washed in Safety-Kleen non-hazardous solution. I have attached all MSDS sheets for all soap that is used to wash these tools. Please review to see if this waste would be allowed into our Parabo Facility.

*Waiting on Analysis
Full TCLP. mjk*

Estimated Volume 120 bbls cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 2-11-00
Waste Management Facility Authorized Agent
 TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 12-15-00

DENIED

APPROVED BY: _____ TITLE: Resubmitted with Analysis DATE: 3-17-00

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

ORIGINATING LOCATION: Halliburton (Dresser Oil Tools

SOURCE: West Hwy 114 Levelland Texas

DISPOSAL LOCATION: Sundance Services 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 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 Halliburton Energy
concur with the status of the waste from the subject site.

Name Stephen Bailey

Title/Agency Halliburton Energy

Address 5801 Lovington Hwy Hobbs, NM 88260

Signature

Stephen W. Bailey

Date

2-4-00

Halliburton Energy Services
P.O. Box 128
W. Highway 114
Levelland, Tx 79336

02 February 2000

To: Sundance Services
1431 Maine
Eunice, NM 88240

Re: Waste Water, Levelland Tx.

Halliburton Energy Services, formerly Dresser Oil Tools in Levelland Tx is currently seeking approval for disposal of our waste water from washing of oil field tools. The tools are washed in Safety-Kleen non-hazardous solution when returned from the field. Tools are then rinsed and cleaned with a pressure washer. The waste water then flows through an oil/water skimmer, ending up in an 5000 gallon open top holding tank. I have attached all MSDS sheets pertaining to Safety Kleen solvent, grease and pipe thread lubricator. Please review this request and advise on any testing that might be needed, if any. If you have any questions, please call Steve Bailey at 505-392-0701.

Stephen W. Bailey
Shared Services Supervisor
Halliburton Energy Services
5801 Lovington Hwy
Hobbs, NM 88240
505-392-0701



SCOTT NELSON
PHONE: 505-392-0746
FAX: 505-392-7062

HALLIBURTON
ENERGY SERVICES

Fax

To:	Martine	From:	SCOTT NELSON
Fax:	505 827-8177	Pages:	10
Phone:		Date:	2-22-2000
Re:		cc:	Donna (Sendana)

☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply ☐ Please Recycle

• Comments: ~~ESP~~ 394-2590 Sendana

SAFETY-KLEEN PREMIUM SOLVENT**MATERIAL SAFETY DATA SHEET FOR USA AND CANADA****SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION****PRODUCT NAME:** SAFETY-KLEEN PREMIUM SOLVENT**SYNONYMS:** (Also known as SAFETY-KLEEN PREMIUM SOLVENT - CALIF.)
Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha;
Naphtha Solvent; Stoddard Solvent; Mineral Spirits.**PRODUCT PART NUMBERS:** (Also known as 6608.) 6605.**PRODUCT USE:** Cleaning and degreasing metal parts.
If this product is used in combination with other chemicals, refer to
the Material Safety Data Sheets for those chemicals.**24-HOUR EMERGENCY TELEPHONES****MEDICAL:****TRANSPORTATION (SPILL):**

These numbers are for
emergency use only. If
you desire non-emergency
information about this
product, please call a
telephone number listed
below.

1-800-752-7869 (USA)
Extension 2**1-800-468-1760 (USA)****1-312-942-5969 (CANADA)****1-613-886-6666 (CANADA)****MANUFACTURER/SUPPLIER:** Safety-Kleen Corp.
1000 North Randall Road
Elgin, IL, 60123-7857 USA
1-800-669-5740**TECHNICAL INFORMATION:** 1-800-669-5740 Extension 7500**MSDS FORM NUMBER:** 82529 (also formerly 82573) **ISSUE:** April 4, 1997**ORIGINAL ISSUE:** January 7, 1993**SUPERSEDES:** April 12, 1994**PREPARED BY:** Product MSDS Coordinator**APPROVED BY:** MSDS Task Force

SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL		ACGIH TLV		LD ^a	LC ^b
				TWA	STEL	TWA	STEL		
100	Distillates (petroleum), hydrotreated light	N.Av.	84742-47-8	500 ^c ppm	N.Av.	100 ^d ppm	N.Av.	>5000 ^d	>2000 mg/m ³ / 4 hours

N.Av. = Not Available

^cBased on Stoddard Solvent.^aOral-Rat LD50 (mg/kg)^dSkin-Rat LD50 > 2000 mg/kg^bInhalation-Rat LC50

See 29 CFR 1910.1000(d)(2) and ACGIH Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices booklet (Appendix C) for the determination of exposure limits for mixtures. Consult an industrial hygienist or similar professional to confirm that the calculate exposure limits are appropriate.

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING!

APPEARANCE

Liquid, clear, colorless to pale yellow, mild hydrocarbon odor.

IMMEDIATE HAZARDS

Combustible liquid and vapor.

Harmful if inhaled.

Eye and skin irritant.

May be harmful if swallowed.

DELAYED HAZARDS

Contains material which may cause central nervous system damage.

POTENTIAL HEALTH EFFECTS

INHALATION (BREATHING): High vapor or mist concentrations may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea and vomiting. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, irregular heartbeat, and other central nervous system effects. Massive acute overexposure may result in rapid central nervous system depression, sudden collapse, deep coma, and death.

EYES: Direct contact with materials or exposure to vapors may cause irritation.

SKIN: Direct contact with materials or exposure to vapors may cause irritation. A single, prolonged exposure is not likely to cause the material to be absorbed through the skin in harmful amounts.

SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

INGESTION (SWALLOWING): May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing material into the lungs during ingestion or vomiting may cause lung injury and possible death.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Individuals with pre-existing lung, cardiac, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CHRONIC: Prolonged or repeated inhalation may cause toxic effects. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball. Prolonged or repeated skin contact may cause drying, cracking, redness, itching, swelling, or burns.

CANCER INFORMATION: No known carcinogenicity. For more information, see **SECTION 11: CARCINOGENICITY**.

Also see **SECTION 15: CALIFORNIA**.

SECTION 4: FIRST AID MEASURES

INHALATION (BREATHING): Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Someone should stay with victim. Get medical attention if breathing difficulty persists.

EYES: For direct contact, immediately flush eyes with plenty of water, holding eyelids apart, for 15 minutes. If irritation or redness from exposure to vapor or mist develops, move away from exposure into fresh air. Get medical attention if irritation or pain persists.

SKIN: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain persists.

INGESTION (SWALLOWING): Immediately get medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid breathing material into the lungs.

NOTE TO PHYSICIANS: No specific antidote available. Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Call medical emergency telephone number (see **SECTION 1**) for additional information.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT: 148°F (64°C) Tag Closed Cup (minimum)

FLAMMABLE LIMITS IN AIR: LOWER: 0.5 VOL% (minimum)
UPPER: 9.3 VOL% (maximum)

AUTOIGNITION TEMPERATURE: 440°F (227°C) (minimum)

SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

**HAZARDOUS COMBUSTION
PRODUCTS:**

Burning may produce carbon monoxide.

**CONDITIONS OF
FLAMMABILITY:**

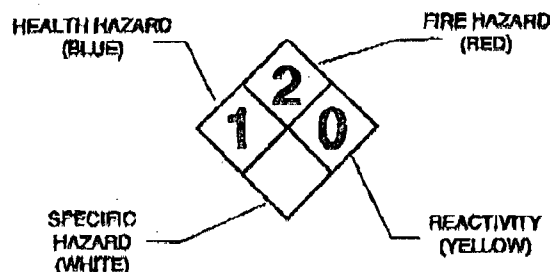
Heat, sparks, or flame.

EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical, water spray, or water fog.

**NFPA 704
HAZARD
IDENTIFICATION:**

This information is intended solely for the use by individuals trained in this system.

**FIRE FIGHTING
INSTRUCTIONS:**

Keep storage containers cool with water spray. Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing may provide limited protection.

**FIRE AND
EXPLOSION HAZARDS:**

Decomposition and combustion products may be toxic. "Empty" containers may retain residue and can be dangerous. Heated containers may rupture. Vapors can travel to ignition source and flash back. Vapor explosion hazard indoors, outdoors, or in sewers. Run-off to sewer may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

**EMERGENCY RESPONSE
GUIDE NUMBER:**

128
Reference *North American Emergency Response Guidebook*

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all ignition sources. Do not touch or walk through spilled material. Stop leak if you can do it without risk. Wear protective equipment specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain away from surface waters and sewers. Contain as a liquid for possible recovery or sorb with compatible sorbent material and shovel with a clean, non-sparking tool into sealable container for disposal.

Additionally, for large spills: isolate hazard area. Keep unnecessary and unprotected personnel from entering. Dike far ahead of liquid spill for collection and later disposal.

SAFETY-KLEEN PREMIUM SOLVENT

MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

SECTION 7: HANDLING AND STORAGE

- HANDLING:** Keep away from heat, sparks, or flame. Where explosive mixtures may be present, equipment safe for such locations should be used. Use clean, non-sparking tools and explosion-proof equipment. When transferring material, metal containers, including trucks and tank cars, should be grounded and bonded. Avoid contact with eyes, skin, clothing, and shoes. Use in well ventilated area. Do not breathe vapor or mist.
- SHIPPING AND STORING:** Keep container tightly closed when not in use and during transport. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORT INFORMATION** for Packing Group information.
- PERSONAL HYGIENE:** Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- ENGINEERING CONTROLS:** Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limit. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limit. Where explosive mixtures may be present, equipment safe for such locations should be used.
- PERSONAL PROTECTIVE EQUIPMENT**
- RESPIRATORY PROTECTION:** Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment are required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4-M1982.
- EYE PROTECTION:** Where eye contact is likely, wear chemical goggles; contact lens use is not recommended.
- SKIN PROTECTION:** Where skin contact is likely, wear nitrile, Viton®, or equivalent protective gloves; use of butyl rubber, natural rubber, or equivalent gloves is not recommended.

SAFETY-KLEEN PREMIUM SOLVENT
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**OTHER
PROTECTIVE
EQUIPMENT:**

Where spills and splashes are likely, wear appropriate chemical-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE,
APPEARANCE, AND ODOR:** Liquid, clear, colorless to pale yellow, mild hydrocarbon odor.

ODOR THRESHOLD: 30 ppm (based on Stoddard Solvent)

SPECIFIC GRAVITY: 0.78 to 0.82 60°F/60°F (15.6°C/15.6°C) (water = 1)

DENSITY: 6.5 to 6.8 lb/US gal (780 to 820 g/l)

VAPOR DENSITY: 5 (air = 1) approximately

VAPOR PRESSURE: 0.2 mm Hg at 68°F (20°C) (approximately)
0.6 mm Hg at 100°F (38°C) (approximately)

BOILING POINT: 350°F (177°C) (initial)

FREEZING/MELTING POINT: less than -45°F (-43°C)

pH: Not applicable.

EVAPORATION RATE: 0.1 (butyl acetate = 1)

SOLUBILITY IN WATER: Insoluble.

MOLECULAR WEIGHT: 160 (approximately)

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

INCOMPATIBILITY: Avoid acids, alkalies, oxidizing agents, reducing agents, or reactive halogens.

REACTIVITY: Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

**HAZARDOUS DECOMPOSITION
PRODUCTS:** None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS**.

SECTION 11: TOXICOLOGICAL INFORMATION

SENSITIZATION: Based on best current information, there is no known human sensitization associated with these materials.

SAFETY-KLEEN PREMIUM SOLVENT
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

CARCINOGENICITY: IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable, or possible carcinogens. NTP classifies chemicals as either known carcinogens, or for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes several categories of carcinogens, including confirmed human carcinogens and suspected human carcinogens.

Based on best current information, there is no known carcinogenicity associated with these materials.

Also see **SECTION 15: CALIFORNIA.**

REPRODUCTIVE TOXICITY: Based on best current information, there is no known reproductive toxicity associated with these materials.

Also see **SECTION 15: CALIFORNIA.**

TERATOGENICITY: Based on best current information, there is no known teratogenicity associated with these materials.

MUTAGENICITY: Based on best current information, there is no known mutagenicity associated with these materials.

TOXICOLOGICALLY SYNERGISTIC PRODUCT(S): Based on best current information, there are no known toxicologically synergistic products associated with these materials.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY: A Static Acute Bioassay as per the California Department of Fish and Game WPCL, was done using fathead minnows, and up to 750 ppm of the products in water.

The material passed the bioassay with only 1 out of 10 minnows dying. To fail the bioassay, more than 40% of the fish would die in 750 ppm.

OCTANOL/WATER PARTITION COEFFICIENT: Not available.

VOLATILE ORGANIC COMPOUNDS: 100 WT%; 6.5 to 6.8 lb/US gal; 780 to 820 g/l
Photochemically reactive as per 40 CFR Part 51.100(s).

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL: Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding recycling or proper disposal.

**SAFETY-KLEEN PREMIUM SOLVENT
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA****USEPA WASTE
CODE(S):**

Not regulated.
Based on available data, this information applies to the material as supplied to the user. Processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

SECTION 14: TRANSPORT INFORMATION

DOT: COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA),
NA1993, PGIII

TDG: Not regulated.

SECTION 15: REGULATORY INFORMATION**USA REGULATIONS****SARA SECTIONS
311 AND 312:**

Materials pose the following physical and health hazards as defined in 40 CFR Part 370 and are subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986:

Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

SARA SECTION 313: These products do not contain toxic chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

TSCA: All the components of these products are listed on the TSCA Inventory.

CALIFORNIA: These products may contain a detectable amount of benzene CAS 71-43-2. This material is listed by the State of California as a known carcinogen.

Our testing of these products indicates that this compound is not always detectable. However, when detected, the benzene level is at or below the product specification of 0.4 mg/l.

These products may contain a detectable amount of p-dichlorobenzene CAS 106-46-7. This material is listed by the State of California as a known carcinogen.

Our testing of these products indicates that this compound is not always detectable. However, when detected, the p-dichlorobenzene level is at or below 7.5 mg/l.

These products may contain a detectable amount of toluene CAS 108-88-3. This material is listed by the State of California as known to cause reproductive toxicity.

SAFETY-KLEEN PREMIUM SOLVENT MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

Our testing of these products indicates that this compound is not always detectable. However, when detected, the toluene level is at or below 500 mg/l.

CANADIAN REGULATIONS

These products have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS: B3, D2B

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

All the components of these products are listed on the Canadian Domestic Substances List.

SECTION 16: OTHER INFORMATION

REVISION INFORMATION: New format.

LABEL/OTHER INFORMATION: These products are United States Department of Agriculture (USDA) approved.

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.



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TROCO OIL COMPANY
TULSA, OK

EMERGENCY NUMBER (918) 585-3064

MATERIAL SAFETY DATA SHEET

I Product Identification

Product Name: NLZ COMPOUND
Synonyms:

Product Number: 967

II Component Identity / Ingredient Information:

COMPONENT	CAS#	%	HAZARD DATA
GREASE	MIXTURE	60-70	LD50 (RAT): SG/KG
GRAPHITE	77820-42-5	10-20	EYE/SKIN IRRITANT:
COPPER	7440-50-8	<5	IRRITANT IF
PROPRIETARY ADDITIVE	MIXTURE	<1	SWALLOWED

* Listed as Carcinogen / Possible Carcinogen:

___NTP ___IARC ___OSHA

** TLV: 5mg/cu m as oil mist

III Physical / Chemical Characteristics:

Boiling Pt, F:	ND	Vapor Pressure (mg Hg):	ND
Vapor Density (Air=1):	NA	Specific Gravity:	1.84
Melting Pt, F:	ND	Evaporation Rate (EE=1):	<1
Solubility in Water:	NIL	Odor:	PETROLEUM ODOR
Appearance:	BLACK PASTE		

IV Fire and Explosion Data:

NFPA Identification	Health	2
	Flammability	1
	Reactivity	1
Flash Point, F:	COC	ND
Flammable Limits:	Lower	NA
	Upper	NA
Extinguishing Media:	CO2, DRY CHEMICAL OR FOAM	

Special Firefighting Procedures:

WEAR BREATHING APPARATUS WHEN FIREFIGHTING.

Unusual Fire and Explosion Hazards:

MAY CAUSE EVOLVE HYDROGEN GAS IF HEATED WITH WATER.

~~Thread Dependent (Logal 967)~~

Mantek Temp Ease Grease

MATERIAL SAFETY DATA SHEET

TEMP-EASE

PAGE : 01

(000000-000000-MSOFF -4438)

DATE OF ISSUE
08/24/85SUPERSEDES
10/12/94

SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS N/A	TRADE NAME & SYNONYMS TEMP-EASE
CHEMICAL FAMILY PETROLEUM LUBRICANT	FORMULA X-C-MIXTURE
MANUFACTURER'S NAME: MANTEK, DIVISION OF NCH CORP.	
ADDRESS (NUMBER, STREET, CITY, STATE & ZIP CODE) BOX 152170 IRVING, TEXAS 75015	
PREPARED BY: C KERINS/CHEMIST	PRODUCT CODE NUMBER 4438
	EMERGENCY TELEPHONE NUMBER 214-438-1381

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS.

CHEMICAL NAME (INGREDIENTS): ALIPHATIC PETROLEUM DISTILLATES	TLV--->5MG/M3 1. CAS#--->8042-47-8	PEL-->5MG/M3 2.
HAZARD--->OIL MIST STEL(TWA)-->10 MG/M3		
CHEMICAL NAME (INGREDIENTS): CRYSTALLINE SILICA-CRISTOBALITE	TLV--->5MG/M3 1. CAS#--->14464-46-1	PEL-->5MG/M3 2.
HAZARD--->CARC. STEL(TWA)-->N/E		
CHEMICAL NAME (INGREDIENTS): CRYSTALLINE SILICA-QUARTZ	TLV--->1MG/M3 1. CAS#--->14808-60-7	PEL-->15MG/M3 2.
HAZARD--->CARC STEL(TWA)-->N/E		
CHEMICAL NAME (INGREDIENTS): PROPYLENE GLYCOL	TLV--->N/E 1. CAS#--->57-55-8	PEL-->N/E 2.
HAZARD--->IRRITANT STEL(TWA)-->N/E		

TEMP-EASE

(CONTINUED)

SECTION II - HAZARDOUS INGREDIENTS

PAGE : 02

CHEMICAL NAME (INGREDIENTS): ZINC OXIDE	TLV--->10MG/M3 1. CAS#--->1314-13-2	PEL-->8 MG/M3 2.
HAZARD--->IRRITANT STEL(TWA)-->10 MG/M3		

SECTION III - PHYSICAL DATA

BOILING PT. (FAHRENHEIT)	>460 F	SPEC GRAVITY (H2O=1)	>1
VAPOR PRESSURE (MM HG)	<0.1	COLOR	LIGHT TAN
VAPOR DENSITY (AIR=1)	<1	ODOR	NO ODOR
PH @ 100%	12.2	CLARITY	OPAQUE
PERCENT VOLATILE BY VOLUME (%)	<1	EVAPORATION RATE (BU AC = 1)	<1
SOLUBILITY IN WATER	NEGLECTIBLE		
VISCOSITY	VISCOUS		

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED)	NON-FLAM	FLAMMABLE LIMITS	N/A	LEL	N/A	UEL	N/A
EXTINGUISHING MEDIA	"ALCOHOL" X--FOAM	X--CO2	DRY X--CHEMICAL	WATER X--SPRAY			X--OTHER
SPECIAL FIRE FIGHTING PROCEDURES: FIREFIGHTERS SHOULD WEAR A SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE GEAR. EXTINGUISHING MEDIA SHOULD BE CHOSEN BASED ON THE NATURE OF THE SURROUNDING FIRE. COOL FIRE EXPOSED CONTAINERS WITH WATER SPRAY.							
UNUSUAL FIRE & EXPLOSION HAZARDS NONE KNOWN.							

NIHA HAZARD RATING (0=INSIGNIFICANT; 1=SLIGHT; 2=MODERATE; 3=HIGH; 4=EXTREME):
 1 <--HEALTH 1 <--FLAMMABILITY 0 <--REACTIVITY <--SPECIAL

TEMP-EASE

(CONTINUED.) SECTION VIII - SPILL OR LEAK PROCEDURES PAGE : 05

NEUTRALIZING AGENT

NONE KNOWN.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION
GENERAL EXHAUST IS ADEQUATE.RESPIRATORY PROTECTION
NONE REQUIRED UNDER NORMAL CONDITIONS OF USE.PROTECTIVE GLOVES
NEOPRENE RUBBER GLOVES IF REPEATED OR PROLONGED
SKIN CONTACT IS LIKELY.EYE PROTECTION
SAFETY GLASSES IF THE METHOD OF USE PRESENTS THE
LIKELIHOOD OF CONTACT.OTHER PROTECTION
GENERAL DUTY WORK CLOTHES.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE
120°F <--MAX 32°F <--MIN INDOOR HEATED REFRIGERATED OUTDOORPRECAUTIONS TO BE TAKEN IN HANDLING & STORING
KEEP CONTAINER CLOSED WHEN NOT IN USE. IF
CONTAINER IS STORED OUTDOORS, STORE CONTAINER ON
ITS SIDE TO PREVENT CONTAMINATION FROM WATER.
DO NOT FREEZE IF PRODUCT DOES FREEZE LET WARM
TO ROOM TEMPERATURE WHILE STIRRING BEFORE USE.OTHER PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN.
READ THE ENTIRE LABEL BEFORE USING THIS PRODUCT.
FOLLOW LABEL DIRECTIONS.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME C.A.S. NUMBER UPPER % LIMIT

TEMP-EASE

(CONTINUED.) SECTION XI - REGULATORY INFORMATION PAGE : 06

ZINC COMPOUNDS N/A 6

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF
313 OF TITLE 11 OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF
1980 AND 40 CFR PART 312.IF HE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT
FROM NOTIFICATION BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE
JANITORIAL WORK OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS
MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND
LABELED FOR MAINTAINING MOTOR VEHICLES.CALIFORNIA PROPOSITION 65
WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) KNOWN TO THE STATE OF
CALIFORNIA TO CAUSE (1) CANCER OR (2) BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM:
CONTAINS LEAD (1), ARSENIC (1) AND CADMIUM (1) IN TRACE AMOUNTS, AND CRYSTAL-
LINE SILICA QUARTZ (1) AND CRYSTALLINE SILICA CRISTOBALITE (1).

SECTION XII - TRANSPORTATION * (FOR FUTURE USE)

APPLICABLE REGULATIONS
X--49 CFR X--IMCO X--TARIFF 8 D X--IATA X--MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS ID NUMBER REPORT QTY

LABELS LIMITED QTY

UNIT CONTAINER

DOT SPS CONTAINER NET EXPLOSIVE WT.

AEROSOL PROPELLANT(S)

SECTION XIII - REFERENCES

1. THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS
AND BIOLOGICAL EXPOSURE INDICES, ACGIH, 1994-1995.
2. OSHA PEL
3. OSHA'S DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, EIGHTH EDITION.
RICHARD J. LEWIS SR.

*SHORT TERM EXPOSURE LIMIT (TWA) LISTED AS FINAL RULE LIMITS PUBLISHED IN THE
FEDERAL REGISTER/VOL.54 NO.12, 1-19-89

TEMP-EASE

SECTION V - HEALTH HAZARD DATA

PAGE : 03

THRESHOLD LIMIT VALUE :

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

EFFECTS OF OVEREXPOSURE

<--EYE CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. <--
<--SKIN CONTACT: MAY CAUSE IRRITATION SEEN AS ITCHING AND REDNESS. <--
<--INGESTION: INGESTION OF MASSIVE AMOUNTS MAY CAUSE GASTROINTESTINAL
IRRITATION SEEN AS NAUSEA, VOMITING AND DIARRHEA.

NO CHRONIC EFFECTS KNOWN.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: NONE KNOWN.

* TARGET ORGANS: NONE KNOWN.

ALTHOUGH THERE IS NO PRIMARY ROUTE OF EXPOSURE, THE PRIMARY ROUTE OF

ENTRY IS EYE AND SKIN CONTACT.

PRIMARY ROUTE OF ENTRY: <-- INHALATION <-- INGESTION <-- ABSORPTION

EMERGENCY & FIRST AID PROCEDURES

INHALATION:
REMOVED FROM THE AREA TO FRESH AIR. SEEK MEDICAL ATTENTION IF RESPIRATORY
IRRITATION DEVELOPS OR IF BREATHING BECOMES DIFFICULT.

EYE CONTACT:
RINSE THE EYES WITH WATER. REMOVE ANY CONTACT LENSES AND CONTINUE FLUSHING
WITH PLENTY OF WATER FOR SEVERAL MINUTES. SEEK MEDICAL ATTENTION IF
IRRITATION DEVELOPS.

SKIN CONTACT:
WASH AFFECTED AREAS WITH PLENTY OF SOAP AND WATER FOR SEVERAL MINUTES.
SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS.

INGESTION:
GIVE 3 TO 4 GLASSES OF WATER. BUT DO NOT INDUCE VOMITING. IF VOMITING
OCCURS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION IF DISCOMFORT
OCCURS.

NOTES TO PHYSICIAN :

NONE KNOWN.

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

IARC X<--YES NTP <--YES OSHA <--YES ACGIH <--YES OTHER <--YES
<--NO X<--NO X<--NO X<--NO X<--NO

PROPYLENE GLYCOL

OIL-RAT LD50: 30 G/KG 3.

EYE-RBT: 100MG MILD 3.

TEMP-EASE

(CONTINUED)

SECTION VI - TOXICITY INFORMATION

PAGE : 04

SKN-HMN: 500MG/70 MILD 3.
CRYSTALLINE SILICA-QUARTZ
OIL-RAT LD50: 50 MG/MG/8H/71W-1: CAR 2.
CRYSTALLINE SILICA-CRISTOBALITE
OIL-RAT LD50: 15MPGF/8H/17.8Y-1: PUL 3.
ZINC OXIDE
OIL-RAT LD50: 4845 MG/KG (1-22D PREG): REP AND TER 2.
OIL-HMN LD50: 500 MG/KG 3.
OIL-HMN LD50: 500 MG/KG 3.
OIL-HMN LD50: 500 MG/KG 3.
OIL-HMN LD50: 500 MG/KG 3.
SKN-RBT: 500 MG/24H MILD 3.
EYE-RBT: 500 MG/24H MILD 3.
ALIPHATIC PETROLEUM DISTILLATE (SIMILAR COMPOUND)
OIL-RAT LD50: 60MG/KG/14W-1: ETA 3.
OIL-RAT LD50: 14 GM/KG/ETA 3.
SKN-RBT: 100MG/24H MILD 3.
EYE-RBT: 25MG/50 MILD 3.

SECTION VII - REACTIVITY DATA

STABILITY X<--STABLE <--UNSTABLE CONDITIONS TO AVOID

NONE KNOWN.

INCOMPATIBILITY (MATERIALS TO AVOID)
STRONG OXIDIZERS, ACIDS, ALKALI.HAZARDOUS DECOMPOSITION PRODUCTS
CARBON DIOXIDE AND CARBON MONOXIDE.

HAZARDOUS WILL NOT MAY CONDITIONS TO AVOID
X <--OCCUR <--OCCUR
POLYMERIZATION NONE KNOWN.

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
DUE TO VISCOSITY A SPILL IS UNLIKELY. SCOOP UP SPILLED MATERIAL AND PLACE
INTO APPROPRIATELY LABELED CONTAINER FOR REUSE OR OTHER DISPOSAL AREA
WITH A SUITABLE DETERGENT OR DEGREASER. COLLECTING THE RINSEATE FOR PROPER
DISPOSAL.

WASTE DISPOSAL METHOD
DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.

(CONTINUED)

SECTION XIII - REFERENCES

PAGE : 07

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED
ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY
IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA
OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

MANTEK, DIVISION OF NCH CORP. ASSUMES NO RESPONSIBILITY
FOR PERSONAL INJURY OR PROPERTY DAMAGE CAUSED BY THE USE, STORAGE
OR DISPOSAL OF THE PRODUCT IN A MANNER NOT RECOMMENDED ON THE
PRODUCT LABEL. USERS ASSUME ALL RISKS ASSOCIATED WITH SUCH
UNRECOMMENDED USE, STORAGE, OR DISPOSAL OF THE PRODUCT.



Conoco Inc.

GREC0320



Revised 23-Jan-92

Printed 18-Jun-92

Zinc P oe Thread Lubricant

MATERIAL IDENTIFICATION

Manufacturer/Distributor

Conoco Inc.
P.O. Box 2197
Houston, TX 77252

Phone Numbers

General Information 1-(713)293-5550
Transport Emergency 1-(800)424-9300
Medical Emergency 1-(800)441-3637

Chemical Family

Petroleum Hydrocarbons

Trade Names and Synonyms

9325
Petroleum Grease

CAS Number

Mixture

NFPA Ratings

Health: 0
Flammability: 1
Reactivity: 0

NPCA-HMIS Ratings

Health: 1
Flammability: 1
Reactivity: 0
Personal Protection rating to be supplied by user depending on use conditions.

OSHA HAZARD DETERMINATION

Hazardous Ingredients

Components of this material are not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

PHYSICAL DATA

Boiling Point

600 to 1200°F

Vapor Pressure

Nil

Vapor Density

>1 (Air = 1.0)

(continued)

PHYSICAL DATA (continued)

% Volatiles	Nil
Evaporation Rate	Nil
Water Solubility	Insoluble
Odor	Mild petro. hydrocarbon
Form	Solid
Color	Gray-green
Specific Gravity	1.93 (Water = 1)

HAZARDOUS REACTIVITY

Instability	Stable.
Incompatibility	Incompatible with strong oxidizing agents. Avoid heat and flame.
Decomposition	Normal combustion forms carbon dioxide; incomplete combustion may produce carbon monoxide.
Polymerization	Polymerization will not occur.

FIRE AND EXPLOSION DATA

Flash Point	300°F
Method	PMCC
Fire and Explosion Hazards	Class IIIB Combustible Liquid (NFPA). If material is heated to melt point, NFPA combustibility classes apply.
Extinguishing Media	Water Spray. Foam. Dry Chemical. CO2.
Special Fire Fighting Instructions	Special Fire Fighting Procedures: Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from exposures. Unusual Fire and Explosion Hazards: Products of combustion may contain carbon monoxide, carbon dioxide and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

HEALTH HAZARD INFORMATION

Primary Routes of Exposure/Entry: Skin.

(continued)

HEALTH HAZARD INFORMATION (continued)

Signs and Symptoms of Exposure/Medical Conditions

Aggravated by Exposure:

The product does not pose a significant health hazard, but as with many petroleum products, poor hygienic practices or inadequate engineering design that allow prolonged or repeated exposure may cause minor skin irritation.

Carcinogenicity

None of the components in this material is listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.

Exposure Limits

Zinc Pipe Thread Lubricant

TLV (ACGIH)

PEL (OSHA)

None Established

None Established

Safety Precautions

Wash thoroughly after handling. Wash clothing after use.

FIRST AID

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Skin Contact

The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

Ingestion

If swallowed, do not induce vomiting. Immediately give two glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

HIGH PRESSURE INJECTION INJURIES:

Accidental release of product during high pressure usage may cause penetration of the skin and cause a seemingly harmless wound that can lead to serious consequences. Have the wound treated by a physician.

Notes to Physician

Activated charcoal slurry may be administered. To prepare activated charcoal slurry, suspend 50 grams activated charcoal in 400mL water and mix thoroughly. Administer 5mL/kg, or 350mL for an average adult.

High velocity injection under the skin can result in serious injury. When released by high pressure equipment, this material can easily penetrate the skin and leave a bloodless puncture wound. Material injected into a finger can eventually effect the palm of the hand. Immediate attention by a surgical specialist is recommended.

PROTECTION INFORMATION

Generally Applicable Control Measures and Precautions

VENTILATION

Normal shop ventilation.

(continued)

PROTECTION INFORMATION (continued)**Personal Protective Equipment****RESPIRATORY PROTECTION**

None required except under unusual circumstances such as described in the Fire and Explosion Section.

PROTECTIVE GLOVES

None required

EYE PROTECTION

None required

OTHER PROTECTIVE EQUIPMENT

Complete protective clothing if material is being handled hot.

SPILL, LEAK AND DISPOSAL INFORMATION**Spill, Leak, or Release**

NOTE: Review FIRE AND EXPLOSION HAZARDS and SAFETY PRECAUTIONS before proceeding with clean up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean up. Recover undamaged and minimally contaminated material for reuse or reclamation. Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up.

Waste Disposal

Treatment, storage, transportation and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

SHIPPING INFORMATION**DOT**

Proper Shipping Name

Not regulated.

IATA/IMO

Proper Shipping Name

Not restricted.

STORAGE CONDITIONS

Store in accordance with National Fire Protection Assn regulations.

TITLE III HAZARD CLASSIFICATIONS

Acute

No

Chronic

No

Fire

No

Reactivity

No

Pressure

No

(continued)

REGULATORY INFORMATION (continued)

ignitable or reactive according to U.S. EPA definitions (40 CFR 261). This material could also become a hazardous waste if it is mixed with or comes in contact with a listed hazardous waste. If it is a hazardous waste, regulations 40 CFR 262-266 and 268 may apply.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT,
40 CFR 116.4A, Section 311

The material contains the following ingredient(s) which is considered hazardous if spilled in navigable waters.

Ingredient	: Petroleum Hydrocarbons
Reportable Quantity	: Film or sheen upon or discoloration of the water surface or adjoining shoreline

STATE REGULATIONS

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 ("PROPOSITION 65")

The material contains ingredient(s) known to the State of California to cause cancer, birth defects, or other reproductive harm. Read and follow label directions and use care when handling or using all petroleum products:

Ingredient	: Lead (0.05%)
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PENNSYLVANIA WORKER AND COMMUNITY RIGHT TO KNOW ACT

This material contains the following ingredients subject to the Pennsylvania Worker and Community Right to Know Act Hazardous Substances List:

Ingredient	: Zinc
CAS Registry Number	: 7440-66-6
Category	: Environmental Hazard

Ingredient	: Zinc Oxide
CAS Registry Number	: 1314-13-2
Category	: Environmental Hazard

Ingredient	: Linseed Oil
CAS Registry Number	: 8001-26-1
Category	: Hazardous Substance

Ingredient	: Cadmium
CAS Registry Number	: 7440-43-9
Category	: Special Hazardous Substance

Non-hazardous ingredient(s) information is withheld as trade secret in accordance with Section 11 of the Pennsylvania Worker and Community Right to Know Act.

(continued)

The above data are based on tests, experience, and other information which Conoco believes reliable and are supplied for informational purposes only. However, some ingredients may have been purchased or obtained from third-party manufactures. In these instances, Conoco, in good faith, relies on information provided by those third parties. Since conditions of use are outside our control, CONOCO DISCLAIMS ANY LIABILITY FOR DAMAGE OR INJURY WHICH RESULTS FROM USE OF THE ABOVE DATA. NOTHING CONTAINED HEREIN SHALL CONSTITUTE A GUARANTEE, WARRANTY (INCLUDING WARRANTY OF MERCHANTABILITY) OR REPRESENTATION (INCLUDING FREEDOM FROM PATENT LIABILITY) BY CONOCO WITH RESPECT TO THE DATA, THE MATERIAL DESCRIBED, OR ITS USE FOR ANY SPECIFIC PURPOSE, EVEN IF THAT PURPOSE IS KNOWN TO CONOCO.

Responsibility for MSDS:

MSDS Administrator
Conoco Inc.
PO Box 2197
Houston, TX 77252
713/293-5550

End of MSDS

V Reactivity Data:

Stability: STABLE

Conditions / Materials to Avoid: STRONG OXIDIZERS

Hazardous Decomposition / By-Products:

CO, CO₂, OXIDES OF CALCIUM, COPPER & LITHIUM

Conditions Contributing to Hazardous Polymerization: NONE

||

VI Spill or Leak Procedure:

Procedure if material is RELEASED OR SPILLED: Recover free product. Add sand, earth, or some other suitable absorbent material to the spill area. If necessary, open all windows and doors. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if the product has entered sewers, watercourses, or extensive land areas. Dispose of waste according to Federal, EPA, State and Local regulations. ASSURE CONFORMITY with all applicable regulations.

VII SPECIAL PROTECTION INFORMATION:

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation. Use approved respirator when adequate ventilation is not available.

PROTECTIVE GLOVES: Use chemical-resistant gloves if needed to avoid prolonged or repeated skin contact.

EYE PROTECTION: Use splash goggles or face shield when eye contact may occur.

PERSONAL HYGIENE: Remove contaminated clothing, launder or dry clean before reuse. Remove contaminated shoes and thoroughly clean after contact. Discard if thorough cleaning is not possible. Clean skin thoroughly after contact, before breaks, meals and at the end of the work period.

WORK PRACTICES: Keep containers closed when not in use. DO NOT store near heat, sparks, flame or strong oxidants.

VIII EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: If splashed into eyes, flush with clear water for 15 minutes or until irritation subsides. If irritation persists, call a physician.

SKIN CONTACT: In case of skin contact, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation occurs, contact a physician.

INGESTION: If ingested DO NOT INDUCE VOMITING. Call a physician immediately. Give large quantities of water. NEVER give anything by mouth to an unconscious person. One pint to one quart is approximate LETHAL oral dose to 150 lb human adult.

INHALATION: Vapor inhalation under ambient temperature conditions is not normally a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If necessary, provide respiratory support. If overexposed to oil mist, remove from exposure until mist oil condition subsides.

IX SPECIAL PRECAUTIONS AND TRANSPORTATION:

STORAGE: Store in a cool dry area in original or equivalent container in accordance with local, state and/or federal regulations. Do not apply high heat or flame to container. It is a good practice to separate from strong oxidizing agents. Store below 150°F.

TRANSPORTATION: DOT information -

Shipping Name: NA

Hazard CLASS: NA

Hazard Identification Number:

Shipping Container Restriction:

DOT Placard:

REGULATORY INFORMATION

OSHA HAZARD DETERMINATION

This material is not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

EPA DETERMINATIONS

CLEAN AIR ACT, 40 CFR 50, SECTIONS 112, 114
The material is not known to contain either a Hazardous Air Pollutant or a Volatile Organic Chemical.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, & LIABILITY ACT (CERCLA/SUPERFUND), 40 CFR 302
Not applicable; this material is covered by the CERCLA petroleum exclusion. Releases are not reportable.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986, TITLE III (SARA) - SECTIONS 302, 304, 313

SECTION 302/304 - Extremely Hazardous Substances (40 CFR 355)

The material is not known to contain extremely hazardous substances at greater than 1.0% concentration; however, it is possible that this material may contain extremely hazardous substances at a lower concentration so that a large enough spill could warrant an Emergency Release Report under Section 304.

SECTION 313 - List of Toxic Chemicals (40 CFR 372)

The material contains the following chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and is subject to toxic chemical release reporting requirements.

Ingredient	: Zinc (Dust)
CAS Registry Number	: 7440-66-6
Approximate Concentration	: 49.0%
(Upper Bound)	

Ingredient	: Zinc Oxide (Dust/Fume)
CAS Registry Number	: 1314-13-2
Approximate Concentration	: 2.5%
(Upper Bound) -	

TOXIC SUBSTANCES CONTROL ACT (TSCA) (40 CFR 710)

The material is a mixture as defined by TSCA. The chemical ingredients in this material are in the Section 8(b) Chemical Substance Inventory (40 CFR 710) and/or are otherwise in compliance with TSCA. In the case of ingredients obtained from other manufacturers, Conoco relies on the assurance of responsible third parties in providing this statement.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261, SUBPART C AND D

The material, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be considered hazardous if it meets criteria for being toxic, corrosive,

(continued)

CAUTION: Empty containers may contain product residue which include flammable or explosive vapors. Consult appropriate authorities before reconditioning, reclaiming, recycling, or disposing of empty containers and/or waste residue of this product.

----- IMPORTANT NOTICE -----

The above data are supplied for informational purposes only. All statements, information, and data provided in this MSDS are believed to be accurate and reliable, but they are presented without guarantee or responsibility of any kind, expressed or implied on our part. Users should make their own investigations to determine the suitability of the information or products for their respective purposes. Nothing contained herein is intended as permission, inducement or recommendation to violate any laws or to practice any invention covered by existing patents.



Quaker State Lithium EP2 Grease

Material Safety Data Sheet

Material Name: Quaker State Multi-Purpose Lithium EP #2 Lubricant

ID: QS-089

*** Section 1 - Chemical Product and Company Identification ***

Product Numbers: 75221 (10.14 oz), 75225 (35 lb), 75226 (120 lb), 75227 (400 lb)

Chemical Name: Lubricant

Product Use: Lubricant

Manufacturer Information

Quaker State Corporation

225 E. John Carpenter Freeway

Irving, Texas 75062

Phone: (800)562-5928

Emergency # (800)424-9300 CHEMTREC

General Comments

CHEMTREC Emergency telephone number is to be used in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals. All non-emergency questions should be directed to customer service.

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Percent
7620-11-4	Lithium 12-hydroxystearate	5-8
68649-42-3	Zinc alkylidithiophosphate	0-2
64742-65-0	Petroleum Distillates, Solvent Dewaxed Heavy Paraffinic	Blend
64741-56-6	Vacuum Residues (petroleum)	Blend

Component Information/Information on Non-Hazardous Components

The maximum percentage of the petroleum distillate and/or residual oil blend contained in this product is: 100%.

All mineral oils used in this product have been severely hydrotreated and/or solvent refined.

*** Section 3 - Hazards Identification ***

Emergency Overview

This product is a dark brown, smooth liquid with a bland odor. It will burn at elevated temperatures (above 450 deg. F). Use carbon dioxide, dry chemical, earth, or sand to extinguish fire. Addition of water or foam to the fire may cause frothing.

Hazard Statements

Not available

Potential Health Effects: Eyes

This product is irritating to the eyes.

Potential Health Effects: Skin

This product is irritating to the skin. Prolonged or repeated contact with this product may dry and/or defat the skin.

Potential Health Effects: Ingestion

This product is harmful if swallowed.

Potential Health Effects: Inhalation

This product may be harmful by inhalation.

HMIS Ratings: Health: 1 Fire: 1 Reactivity: 0 Pers. Prot.: Face shield/gloves

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

*** Section 4 - First Aid Measures ***

First Aid: Eyes

Flush eyes with large amounts of water for 15 minutes. If irritation persists, seek medical attention.

First Aid: Skin

Remove contaminated clothing. Wash affected area with mild soap and water. Launder contaminated clothing before reuse.

First Aid: Ingestion

Do not induce vomiting. Call your local poison control center or get medical attention.

Material Safety Data Sheet**Material Name:** Quaker State Multi-Purpose Lithium EP #2 Lubricant**ID:** QS-089**First Aid: Inhalation**

Remove to fresh air. If not breathing, give mouth to mouth resuscitation. If inhaled, immediately remove the affected person to fresh air. Call a physician.

First Aid: Notes to Physician

Treat symptomatically.

***** Section 5 - Fire Fighting Measures *******Flash Point:** 450 deg. F**Upper Flammable Limit (UFL):** Not determined**Auto Ignition:** >600 deg. F**Rate of Burning:** Not determined**General Fire Hazards**

"Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. This product is combustible at temperatures above 450 deg. F

Hazardous Combustion Products

Carbon monoxide and carbon dioxide.

Extinguishing Media

Dry chemical or carbon dioxide for small fires. Earth, sand.

Fire Fighting Equipment/Instructions

Wear full set of protective equipment including chemical goggles and gloves. Water or foam may cause frothing, which can be violent.

NFPA Ratings: Health: 0 Fire: 1 Reactivity: 0 Other:**Hazard Scale** 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe***** Section 6 - Accidental Release Measures *******Containment Procedures**

Contain the discharged material.

Clean-Up Procedures

Absorb with inert absorbent such as dry clay, sand or diatomaceous earth, commercial sorbents, or recover using pumps. Scoop up used absorbent into drums or other appropriate container. Do not allow the spilled product to enter public drainage systems or open water courses. Surfaces may become slippery after spillage.

Evacuation Procedures

Isolate area. Keep unnecessary personnel away.

Special Procedures

Remove soiled clothing and launder before reuse. Avoid excessive skin contact with the spilled material. Eliminate all ignition sources including flares, flames and electrical sparks. Wear appropriate protective equipment and clothing during clean-up.

***** Section 7 - Handling and Storage *******Handling Procedures**

Use this product with adequate ventilation. Keep this product from heat, sparks, or open flame. When using this material, do not eat, drink or smoke. Wash hands after handling and before eating. Launder work clothes frequently. Avoid inhalation and skin contact, especially when handling used oil. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or promptly disposed of.

Storage Procedures

Store away from strong oxidizers. Keep the container tightly closed. Keep the container in a well-ventilated place. Keep this material away from food, drink and animal feed. Do not store this material in open or unlabeled containers. Eliminate all sources of ignition. Store away from strong oxidizers.

Material Safety Data Sheet

Material Name: Quaker State Multi-Purpose Lithium EP #2 Lubricant

ID: QS-089

***** Section 8 - Exposure Controls / Personal Protection *******Exposure Guidelines****A: General Product Information**

If oil mists are generated, observe the OSHA exposure limit of 5 mg/m3.

B: Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT**Personal Protective Equipment: Eyes/Face**

Use of a full face shield is recommended.

Personal Protective Equipment: Skin

Wear oil-impervious garments if contact is unavoidable. Use impervious gloves for prolonged contact or any contact with used oil. The use of polyvinyl chloride, butyl rubber, polyethylene, or neoprene gloves is recommended.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided. If mist is generated (heating, spraying) and engineering controls are not sufficient, wear approved organic vapor respirator suitable for oil mist.

Personal Protective Equipment: General

Use good hygiene when handling petroleum product.

***** Section 9 - Physical & Chemical Properties *****

Appearance: Dark brown
Physical State: Liquid
Vapor Pressure: Not available
Boiling Point: 480 deg. F
Solubility (H2O): Negligible
Freezing Point: 5 deg. F

Odor: Bland
pH: Not available
Vapor Density: Not available
Melting Point: 400 deg. F
Specific Gravity: 0.85 @16 deg. C

Physical Properties: Additional Information

Autoignition Temperature/Fire Point: >600 deg. F

***** Section 10 - Chemical Stability & Reactivity Information *******Chemical Stability**

Stable

Chemical Stability: Conditions to Avoid

Avoid excessive heat and all sources of ignition. Avoid contact with strong oxidizers.

Incompatibility

Strong oxidizing agents (peroxides, chlorine, strong acids).

Hazardous Decomposition

None under normal conditions. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

Hazardous Polymerization

Will not occur.

***** Section 11 - Toxicological Information *******Acute Toxicity****A: General Product Information**

No data available on the product as a whole.

B: Component Analysis - LD50/LC50

No LD50/LC50's are available for this product's components.

Material Safety Data Sheet

Material Name: Quaker State Multi-Purpose Lithium EP #2 Lubricant

ID: QS-089

Carcinogenicity**A: General Product Information**

No data available on the product as a whole.

B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

Epidemiology

No data available for product.

Neurotoxicity

No data available on this product as a whole.

Mutagenicity

No data available on this product as a whole.

Teratogenicity

Ethyl benzene has caused birth defects, affected fertility and been fetotoxic below the TLV in animals.

Other Toxicological Information

This product contains a blend of petroleum distillates and residual oils, all of which have been solvent refined or severely hydrotreated. The petroleum distillate and residual oil blend consists of one or more of the components identified by CAS Number in Section 2. Since these components vary with the availability of materials their presence is noted as "blend".

***** Section 12 - Ecological Information *******Ecotoxicity**

No information is available on ecotoxicity of this product. Keep product out of sewers and waterways.

Environmental Fate

No information is available.

***** Section 13 - Disposal Considerations *******US EPA Waste Number & Descriptions****A: General Product Information**

Material, if discarded, is not expected to be a characteristic hazardous waste under RCRA. No components are identified as hazardous wastes.

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions

Used oil can be returned to a collection center or provided to a licensed recycler. All wastes must be handled in accordance with local, state and federal regulations. Do not allow this material to drain into sewers/water supplies.

***** Section 14 - Transportation Information *******US DOT Information**

Shipping Name: Not Regulated

Hazard Class: None

UN/NA #: None

Packing Group: None

Required Label(s): None

Additional Info.: None

International Transportation Regulations

Not regulated as dangerous goods.

***** Section 15 - Regulatory Information *******US Federal Regulations****A: General Product Information**

No additional information.

B: Component Analysis

Material Safety Data Sheet**Material Name: Quaker State Multi-Purpose Lithium EP #2 Lubricant****ID: QS-089**

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

State Regulations**A: General Product Information**

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - State

None of this product's components are listed on the state lists from CA, FL, MA, MN, NJ, or PA.

Other Regulations**A: General Product Information**

Other state regulations may apply. Check individual state requirements.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Lithium 12-hydroxystearate	7620-77-1	Yes	Yes	Yes
Zinc alkyldithiophosphate	68649-42-3	Yes	Yes	Yes
Vacuum Residues (petroleum)	64741-56-6	Yes	Yes	Yes
Petroleum Distillates, Solvent Dewaxed Heavy Paraffinic	64742-65-0	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

***** Section 16 - Other Information *******Other Information**

This information is, to the best of Quaker State Corporation's knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Key/Legend**MSDS History**

Preparation information: New MSDS: 8/10/1995. Revision 2.0000 (1/7/98) Section 2 was revised to indicate that the product contains a "blend" of petroleum distillates and/or residual oils. Section 11 revised to the nature of the product blend.

Revision (06/05/98): Text correction.

Contact: Vince Bernard, Corporate Safety Director

Contact Phone: (800) 562-5928

This is the end of MSDS # QS-089

FOR COATINGS, RESINS AND RELATED MATERIALS
(APPROVED BY U.S. DEPARTMENT OF LABOR)

Red Ink Marked
5/10/90

SECTION 1

(PAGE 1)

Manufacturer's Name: SPRAYON PRODUCTS
Plant Address: 26300 PARK DRIVE

Emergency Phone No: 215/292-7400

City, State, and Zip Code: BEDFORD HTS. OH

Code Identification: VSP-ERG

Rev. Date: 08/17/90

Date: 10/12/90

Product Class - (AEROSOL) COATINGS

Trade Name: VSP-ERG RED INSULATOR

Lab No.: 50328

SECTION 1 - HAZARDOUS INGREDIENTS

INGREDIENT

PERCENT	* CBHA *	TLV *	TLV *	* * *
	REL *	PPM *	MO/MS *	LEL *
XYLENE	20	* 100 *	100 *	435.00 * 1.1 *
TOLUENE	5	* 100 *	100 *	375.00 * 1.2 *
ACETONE	30	* 750 *	750 *	1780.00 * 2.6 *
HI SOL	45	* 100 *	100 *	N/E * 1.0 *
A ISOBUTANE	10	* 1000 *	1000 *	1800.00 * 1.5 *
A PROPANE	10	* 1000 *	1000 *	1800.00 * 2.3 *

Q = SARA TITLE III See Below

55 +/- 5 PSI

AEROSOL - CONTENTS UNDER PRESSURE

carcinogenicity: THIS PRODUCT IS NOT CONSIDERED TO BE A CARCINOGEN
BY THE NATIONAL TOXICOLOGY PROGRAM, THE INTERNATIONAL AGENCY FOR RESEARCH ON
CANCER, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OR NATIONAL
INSTITUTE FOR OCCUPATIONAL SAFETY & HEALTH.

NOT CONSIDERED TO BE A CARCINOGEN
BY THE NATIONAL TOXICOLOGY PROGRAM, THE INTERNATIONAL AGENCY FOR RESEARCH ON
CANCER, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, OR NATIONAL
INSTITUTE FOR OCCUPATIONAL SAFETY & HEALTH.

SARA: These ingredients are listed on the Superfund Amendments and Reauthorization Act of 1986 and CFR 40 part 372.

act to SARA TITLE III Section 313 reporting for
authorization Act of 1986 and CFR 40 part 372.

SARA: Aerosol products are listed on the Superfund Amendments and Reauthorization Act of 1986 and CFR 40 part 372.

act to SARA TITLE III Section 313 reporting for
authorization Act of 1986 and CFR 40 part 372.

pursuant to Proposition 65: THIS PRODUCT MAY CONTAIN SMALL AMOUNTS OF MATERIALS AS IMPURITIES WHICH ARE REGULATED BY PROPOSITION 65.

IN RAW MATERIALS USED IN MAKING THIS
OF MATERIALS AS IMPURITIES WHICH ARE
SEE SECTION IX.

SECTION II - PHYSICAL DATA

Boiling Range: PROPELLANT BLEND

0.0 F Vapor Density: HEAVIER THAN AIR

Evaporation Rate: FASTER THAN WATER
*PROPELLANTS

Percent Volatile By Weight: 51
Weight Per Gallon: NOT APPLICABLE

Specific Gravity: NOT APPLICABLE

Appearance & Odor: COATINGS

NOT APPLICABLE

Vapor Pressure: NOT APPLICABLE

Stability in Water: NOT APPLICABLE

Melting Point: NOT APPLICABLE

11/26/91

11:56

SPRAYON PRODUCTS

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: PROPELLANT BELOW 20 F LEL: SEE
ORM-D (T.O.C.) SECTION II
Extinguishing Media: CARBON DIOXIDE, DRY CHEMICAL OR FOAM.

Usual Fire and Explosion Hazards: DO NOT SMOKING NEAR OPEN FLAME. KEPT AT ROOM TEMPERATURE AS EXPOSURE TO DIRECT SUNLIGHT OR OTHER HEAT MAY CAUSE BURSTING.
Special Fire Fighting Procedures: WATER MAY BE INEFFECTIVE - WATER MAY BE USED TO KEEP FIRE EXPOSED CONTAINERS COOL.

SECTION V - HEALTH HAZARD DATA

Threshold Limit Value: (SEE SECTION II HAZARDOUS INGREDIENTS)

Effects of Overexposure: IN A CONFINED AREA VAPORS IN HIGH CONCENTRATION ARE ANESTHETIC, IRRITANT TO SKIN AND UPPER RESPIRATORY SYSTEM. OVER-EXPOSURE MAY RESULT IN LIGHT-HEADEDNESS, STAGGERING GAIT, DIZZINESS AND POSSIBLE NAUSEA. CONTAINS PETROLEUM DISTILLATE - HARMFUL OR FATAL IF SWALLOWED

Toxic: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE ALSO KIDNEY AND LIVER DAMAGE.

Medical Conditions Prone to Aggravation by Exposure: NONE ESTABLISHED.

Routes of Entry: Inhalation: YES Skin: YES Ingestion: YES

Emergency and First Aid Procedures:

Breathing: REMOVE PATIENT TO FRESH AIR.
Eyes: FLUSH WITH WATER FOR AT LEAST 15 MINUTES.
Skin: WASH WITH SOAP AND WATER.
Swallowing: CALL PHYSICIAN IMMEDIATELY. DO NOT INDUCE VOMITING.

SECTION VI - REACTIVITY DATA

Stability: STABLE Conditions to Avoid: DO NOT STORE ABOVE 120 F

Incompatibility (NONE)

Hazardous Decomposition Products: By open flame: CARBON MONOXIDE, CARBON DIOXIDE.

Hazardous Polymerization: WILL NOT OCCUR

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:

REMOVE ALL SOURCES OF IGNITION, VENTILATE AVOID BREATHING VAPORS
(SEE SECTION X) AND REMOVE WITH INERT ADSORBENT

Safe disposal method:

DO NOT INCINERATE - OBE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS REGARDING POLLUTION.

 SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory Protection: AVOID BREATHING OF VAPOR OR SPRAY MIST (SEE SECTION X)

IF PERSONAL EXPOSURE CANNOT BE CONTROLLED BELOW APPLICABLE LIMITS BY VENTILATION, WEAR A PROPERLY FITTED ORGANIC VAPOR/PARTICULATE RESPIRATOR APPROVED BY NIOSH/MSHA FOR PROTECTION AGAINST MATERIALS IN SECTION II.

WHEN SANDING OR ABRADING THE DRIED FILM, WEAR A DUST/MIST RESPIRATOR APPROVED BY NIOSH/MSHA FOR DUST WHICH MAY BE GENERATED FROM THIS PRODUCT, UNDERLYING PAINT, OR THE ABRASIVE.

THE APPLICABLE LIMITS FOR NUISANCE DUSTS ARE ACCIDENTALLY 10 mg/m³ (TOTAL DUST), OSHA PEL 15 mg/m³ (TOTAL DUST), 5 mg/m³ RESPIRABLE FRACTION).

Ventilation: PROVIDE LOCAL EXHAUST VENTILATION IN VOLUME AND PATTERN TO KEEP TLV OF ALL HAZARDOUS INGREDIENTS IN SECTION II BELOW ACCEPTABLE LIMIT, AND LEL IN SECTION II BELOW STATED LIMIT.

Protective Gloves: FOR PROLONGED OR REPEATED CONTACT, WEAR GLOVES WHICH ARE RECOMMENDED BY GLOVE SUPPLIER FOR PROTECTION AGAINST MATERIALS IN SECTION II.

Eye Protection: FOR PROLONGED USE IN CLOSE QUARTERS RECOMMEND SAFETY GLASSES WITH UNPERFORATED SIDESHIELDS.

Protective Equipment:

 SECTION IX - SPECIAL PRECAUTIONS

cautions to be taken in handling and storing:

DO NOT STORE ABOVE 120 F. KEEP AT ROOM TEMPERATURE AS EXPOSURE TO DIRECT SUNLIGHT OR HEAT MAY CAUSE BUBBLING.

Precautions:

KEEP AWAY FROM CHILDREN.

DO NOT PUNCTURE OR INCINERATE.

DO NOT SPRAY NEAR FIRE OR OPEN FLAME.

Warning to Proposition 65:

PROPOSITION 65 APPLIES TO A LIST OF CHEMICALS NAMED BY THE GOVERNOR OF CALIFORNIA AS CARCINOGENS OR REPRODUCTIVE TOXINS. WARNING REQUIREMENTS FOR SPECIFIC CHEMICALS TAKE EFFECT ONE YEAR AFTER THEY ARE ADDED TO THE GOVERNOR'S LIST. OTHER CHEMICALS ALREADY ADDED TO THE GOVERNOR'S LIST WILL BE REGULATED LATER UNDER PROPOSITION 65.

11/26/91

11:57

SPRAYON PRODUCTS

SECTION X HAZARDOUS MATERIAL IDENTIFICATION

COMMUNICATION OF PHYSICAL PROPERTY, HEALTH, AND SAFETY INFORMATION
IS A KEY FACTOR IN OUR PRODUCT SAFETY PROGRAM. WITH THIS INFORMATION YOU CAN
BETTER FULFILL YOUR OBLIGATION TO EDUCATE EXPOSED PERSONNEL IN THE PROPER
HANDLING TECHNIQUES REQUIRED TO MAINTAIN SAFETY IN THE WORKPLACE. LISTED IN
THIS SECTION IS NFPA-HMIS CLASSIFICATION FOR THIS PRODUCT.

HMIS CLASSIFICATION CODE

Health: 2 MODERATE HAZARD
Flammability: 4 SEVERE HAZARD
Reactivity: 0 MINIMAL HAZARD
Personal protection: D FACE SHIELD, GLOVES, APRON

THE ABOVE INFORMATION PERTAINS TO THIS PRODUCT AS CURRENTLY FORMULATED,
AND IS BASED ON THE INFORMATION AVAILABLE AT THIS TIME. ADDITION OF REDUCERS
OR OTHER ADDITIVES TO THIS PRODUCT MAY SUBSTANTIALLY ALTER THE COMPOSITION
AND HAZARDS OF THE PRODUCT. SINCE CONDITIONS OF USE ARE OUTSIDE OUR CONTROL,
WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, AND ASSUME NO LIABILITY IN
CONNECTION WITH ANY USE OF THIS INFORMATION.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

SECTION 1 -- PRODUCT AND PREPARATION INFORMATION

PRODUCT INFORMATION

IDENTITY (TRADE NAME):

used in the Past ^{only} Sent in By Mistake Phone Conversation with
~~Steve~~ Steve Bailey Halliburton
2-22-00 Maryne Kichling

SYNONYMS:

Parts Washer Solvent; Petroleum Distillates; Petroleum Naphtha; Naphtha, Solvent;
Stoddard Solvent; Mineral Spirits

SK PART NUMBER(S):

6617, 1011662, 1014662

MSDS- Fixed in on 2-22-00
SafetyKleen Premium Solvent

FAMILY/CHEMICAL NAME:

Petroleum hydrocarbon

PRODUCT USE:

Cleaning and degreasing metal parts.
If this product is used in combination with other chemicals, refer to the Material
Safety Data Sheets for those chemicals.

24-HOUR EMERGENCY TELEPHONE

These numbers are for emergency use
only. If you desire non-emergency
information about this product,
please call a telephone number
listed below.

MEDICAL:

1-800-752-7869 (U.S.A.)

1-312-942-5969 (CANADA)

RUSH POISON CONTROL CENTER
CHICAGO, ILLINOIS, U.S.A.

TRANSPORTATION:

1-708-888-4660 (U.S.A.)
SAFETY-KLEEN ENVIRONMENT,
HEALTH AND SAFETY DEPARTMENT

1-613-996-6666 (CANADA)
CANUTEC

MANUFACTURER/SUPPLIER:

Safety-Kleen Corp. - 1000 North Randall Road - Elgin, IL, U.S.A. 60123-7857
Telephone number: 1-800-669-5840
Safety-Kleen Canada Inc. - 300 Woolwich Street South - Breslau, ON, Canada N0B 1M0
Telephone number: 1-800-265-2792

PREPARATION INFORMATION

MSDS FORM NO.: 82310

REVISION DATE: February 2, 1994

ORIGINAL ISSUE DATE: July 20, 1989

SUPERSEDES: January 15, 1992

PREPARED BY: Product MSDS Coordinator

APPROVED BY: MSDS Task Force

TELEPHONE NUMBER: For Product Technical Information Call 1-312-694-2700 (U.S.A.);
1-519-648-2291 (Canada)

SECTION 2 -- HAZARDOUS COMPONENTS

NAME	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA ppm	STEL ppm	TWA ppm	STEL ppm	LD ^a	LC ^b
Distillates (petroleum) hydrotreated light	Solvent naphtha (petroleum), heavy aliph., hydro- treated	64742-47-8 ^{f,8}	99-100	500 ^{c,d}	N.Av.	100 ^c	N.Av.	> 5000	> 5500 ^c mg/m ³ /4 hours
^e Tetrachloroethene	Perchloroethylene; Tetrachloroethylene	127-18-4	0-0.5**	100 ^c	N.Av.	25	100	2629	34200 mg/m ³ /8 hours

PCE
Flaked

SAFETY-KLEEN 105 SOLVENT RECYCLED

MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

NAME <i>F11skd F001 F002</i>	SYNONYM	CAS NO.	WT%	OSHA PEL		ACGIH TLV		OTHER DATA	
				TWA ppm	STEL ppm	TWA ppm	STEL ppm	LD ^a	LC ^b
*1,1,1-Trichloro-ethane	Methyl chloroform	71-55-6	0-0.5**	350	450	350	450	10300	18000 ppm/4 hours

N.Av. = Not Available

*See Section 9-SARA Title III

**Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.

^aOral-Rat LD50 (mg/kg)

^bInhalation-Rat LC50

^cFor Stoddard Solvent CAS 8052-41-3

^dReference source 1910.1000 29 CFR Ch. XVII (7-1-92 edition): 100 ppm TWA

^eReference source 1910.1000 29 CFR Ch. XVII (7-1-92 edition): 25 ppm TWA

^fFor Stoddard Solvent: 29500 mg/m³ (approximately 5000 ppm) IDLH

^gFor Petroleum Distillates: 10000 ppm IDLH

SECTION 3 – EMERGENCY AND FIRST AID PROCEDURES

EYES:	For direct contact, flush eyes with water for 15 minutes lifting upper and lower lids occasionally. If irritation or redness from exposure to vapor or mist develops, move victim away from exposure into fresh air. Consult physician if irritation or pain persists.
SKIN:	Remove contaminated clothing and shoes. Wash skin twice with soap and water. Consult physician if irritation or pain persists.
INHALATION: (Breathing)	Remove to fresh air immediately. Use oxygen if there is difficulty breathing or artificial respiration if breathing has stopped. Do not leave victim unattended. Seek immediate medical attention if necessary.
INGESTION: (Swallowing)	Seek immediate medical attention. Do NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to avoid aspiration (breathing) into the lungs.
SPECIAL NOTE TO PHYSICIAN:	Treat symptomatically and supportively. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Contact Rush Poison Control center (see Section 1) for additional medical information.

SECTION 4 – HEALTH HAZARD DATA AND TOXICOLOGICAL PROPERTIES

PRIMARY ROUTES OF EXPOSURE: Eye and skin contact; inhalation, ingestion.

EXPOSURE LIMITS: See Section 2.

SIGNS AND SYMPTOMS OF EXPOSURE

ACUTE: *Eyes:* Contact with liquid or exposure to vapors may cause mild to moderate irritation with watering, stinging, or redness.

Skin: Contact with liquid or exposure to vapors may cause mild to severe irritation. Contact with liquid or exposure to vapors may cause redness, dryness, cracking, burning, or dermatitis. No significant skin absorption hazard.

Inhalation (Breathing): High concentrations of vapor or mist may irritate the nose, throat, or respiratory tract. High concentrations of vapor or mist may cause nausea, vomiting, or irregular heartbeat. High concentrations of vapor or mist may cause headaches, dizziness, incoordination, numbness, unconsciousness, and other central nervous system effects. Massive acute exposure may result in rapid central nervous system depression with sudden collapse, deep coma, and death.

Ingestion (Swallowing): Low order of acute oral toxicity. May cause throat irritation, nausea, vomiting, myocardial (muscular tissue of the heart) injury, arrhythmias (irregular heartbeats), and symptoms of central nervous system effects as listed for *ACUTE Inhalation*. Breathing material into the lungs during ingestion or vomiting may cause mild to severe pulmonary (lung) injury and possibly death.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

CHRONIC: Prolonged or repeated eye contact may cause conjunctivitis. Prolonged or repeated skin contact may cause drying, cracking, dermatitis, or burns.

MEDICAL CONDITIONS

AGGRAVATED BY EXPOSURE:

Individuals with pre-existing lung, cardiac, central nervous system, or skin disorders may have increased susceptibility to the effects of exposure.

CARCINOGENICITY:

IARC classifies chemicals by their carcinogenic risk, including agents that are known, probable, or possible carcinogens. NTP classifies chemicals as either known carcinogens, or for which there is a limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. ACGIH recognizes several categories of carcinogens, including confirmed human carcinogens, suspected human carcinogens, and animal carcinogens.

Tetrachloroethene is listed by IARC as a possible carcinogen. Tetrachloroethene is classified by NTP as having limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals. Tetrachloroethene is recognized by ACGIH as an animal carcinogen.

OTHER POTENTIAL HEALTH HAZARDS:

The following information is required by Canadian WHMIS regulations. Irritancy is covered in Signs and Symptoms of Exposure in Section 4. There is no known human sensitization, toxicologically synergistic product, reproductive toxicity, or mutagenicity associated with this product as a whole. Studies indicate that 1,1,1-trichloroethane is an experimental teratogen.

SECTION 5 -- FIRE AND EXPLOSION HAZARD DATA

EMERGENCY RESPONSE GUIDE NUMBER:

27
Reference 1993 Emergency Response Guidebook (RSPA P 5800.6)

FIRE AND EXPLOSION HAZARDS:

Decomposition and combustion products may be toxic. Heated containers may rupture, explode, or be thrown into the air. Vapors are heavier than air and may travel great distances to ignition source and flash back. Vapor explosion hazard indoors, outdoors, or in sewers. Run-off to sewer may create fire or explosion hazard. Not sensitive to mechanical impact. Material may be sensitive to static discharge, which could result in fire or explosion.

FIRE FIGHTING PROCEDURES:

Keep storage containers cool with water spray. Positive-pressure, self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing will provide limited protection.

EXTINGUISHING MEDIA:

Carbon dioxide, foam, dry chemical, or water spray.

CONDITIONS OF FLAMMABILITY:

Heat, sparks, or flame.

FLASH POINT:

105°F (40°C) (minimum) Tag Closed Cup

AUTOIGNITION TEMPERATURE:

440°F (227°C) (minimum) (based on similar materials)

FLAMMABLE LIMITS IN AIR:

LOWER: 1.0 Vol. % (based on similar materials)
UPPER: 9.3 Vol. % (based on similar materials)

HAZARDOUS COMBUSTION PRODUCTS:

Burning may produce phosgene, chloroacetylenes, chlorides, or carbon monoxide.

SECTION 6 -- REACTIVITY DATA

STABILITY:

Stable under normal temperatures and pressures, and not reactive with water.

INCOMPATIBILITY (MATERIALS AND CONDITIONS TO AVOID):

Avoid strong acids, bases, or oxidizing agents. Chlorine may cause a violent reaction. Avoid heat, sparks, or flame.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

HAZARDOUS POLYMERIZATION:

Not known to occur under normal temperatures and pressures.

**HAZARDOUS DECOMPOSITION
PRODUCTS:**

None under normal temperatures and pressures.

SECTION 7 -- PREVENTIVE MEASURES

PRECAUTIONS FOR SAFE USE AND HANDLING

**HANDLING
PRECAUTIONS:**

Keep away from heat, sparks, or flame. Where explosive mixtures may be present, equipment safe for such locations should be used. When transferring material, metal containers, including tank cars and trucks, should be grounded and bonded. Avoid contact with eyes, skin, clothing, or shoes. Use in well ventilated area and avoid breathing vapor or mist.

**PERSONAL
HYGIENE:**

Use good personal hygiene. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco products. Clean contaminated clothing, shoes, and protective equipment before reuse. Discard contaminated clothing, shoes, or protective equipment if they cannot be thoroughly cleaned.

**SHIPPING AND
STORING
PRECAUTIONS:**

Keep container tightly closed when not in use and during transport. Do not pressurize, drill, cut, heat, weld, braze, grind, or expose containers to flame or other sources of ignition. Empty product containers may contain product residue. See Section 9 for Packing Group information.

**SPILL
PROCEDURES:**

Remove all ignition sources. Stop leak if you can do it without risk. Wear protective equipment specified in Section 7, CONTROL MEASURES. Ventilate area and avoid breathing vapor or mist. Water spray may reduce vapor, but it may not prevent ignition in closed spaces. For large spills, isolate area and deny entry; dike far ahead of liquid spill for later disposal. Contain away from surface waters and sewers. If possible, contain as a liquid for possible re-refining or sorb with compatible sorbent material and shovel with a non-sparking tool into closable container for disposal. See 1993 *Emergency Response Guidebook* (RSPA P 5800.6) Guide Number 27 for more information.

**WASTE DISPOSAL
METHODS:**

Dispose in accordance with federal, state, provincial, and local regulations. Contact Safety-Kleen regarding recycling or proper disposal.

CONTROL MEASURES

**EYE
PROTECTION:**

Where there is likelihood of eye contact, wear chemical goggles; do NOT wear contact lenses.

**PROTECTIVE
GLOVES:**

Use Nitrile, Viton[®], or equivalent gloves to prevent contact with skin. Use of Butyl rubber, natural rubber, or equivalent gloves is not recommended.

**RESPIRATORY
PROTECTION:**

Use NIOSH/MSHA-approved respiratory protective equipment when concentration of vapor or mist exceeds applicable exposure limit. A self-contained breathing apparatus (SCBA) and full protective equipment are required for large spills or fire emergencies. Selection and use of respiratory protective equipment should be in accordance in the U.S.A. with OSHA General Industry Standard 29 CFR 1910.134 or in Canada with CSA Standard Z94.4-M1982.

**ENGINEERING
CONTROLS:**

Provide process enclosure or local ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where explosive mixtures may be present, equipment safe for such locations should be used.

**OTHER PROTECTIVE
EQUIPMENT:**

Where spills and splashes are possible, wear appropriate solvent-resistant boots, apron, or other protective clothing. Clean water should be available in work areas for flushing the eyes and skin.

SECTION 8 -- PHYSICAL DATA

**PHYSICAL STATE,
APPEARANCE AND ODOR:**

Liquid, clear, green, with characteristic hydrocarbon odor.

SAFETY-KLEEN 105 SOLVENT RECYCLED
MATERIAL SAFETY DATA SHEET FOR U.S.A. AND CANADA

ODOR THRESHOLD:	30 ppm (based on Stoddard Solvent)
SPECIFIC GRAVITY:	0.77 to 0.80 (60°/60°F) (16°/16°C) (water = 1)
DENSITY:	6.4 to 6.7 lb/US gal (770 to 800 g/l)
VAPOR DENSITY:	5.3 to 6.2 (air = 1) (based on similar materials)
VAPOR PRESSURE:	1 to 2 mm Hg at 68°F (20°C)
BOILING POINT:	310° to 400°F (155° to 205°C)
FREEZING POINT:	less than -45°F (-43°C) (based on similar materials)
pH:	Not applicable.
VOLATILE ORGANIC COMPOUNDS: (US EPA DEFINITION)	100 WT%; 6.4 to 6.7 lb/US gal; 770 to 800 g/l
EVAPORATION RATE:	less than 0.1 (butyl acetate = 1) (based on similar materials)
SOLUBILITY IN WATER:	Insoluble. (based on similar materials)
COEFFICIENT OF WATER/OIL DISTRIBUTION:	less than 1 (based on similar materials)
MOLECULAR WEIGHT:	155 to 180 (based on similar materials)

SECTION 9 -- OTHER REGULATORY INFORMATION

TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME:	COMBUSTIBLE LIQUID, N.O.S. (PETROLEUM NAPHTHA)
DOT CLASS:	Combustible Liquid
DOT ID NUMBER:	NA1993 PG III
TDG CLASSIFICATION:	Naphtha, Petroleum, Class 3.3, UN1255, PG III
SARA TITLE III:	Product contains toxic chemicals subject to requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. Toxic constituents are listed with an asterisk in Section 2 of this Material Safety Data Sheet. Product poses the following physical and health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986: Immediate (Acute) Health Hazard Delayed (Chronic) Health Hazard Fire Hazard
WHMIS CLASSIFICATION:	B3, Flammable and Combustible Material, Combustible Liquids; D2A, Poisonous and Infectious Material, Materials Causing Other Toxic Effects, Very Toxic Material D2B, Poisonous and Infectious Material, Materials Causing Other Toxic Effects, Toxic Material

Alameda, NM 88241-1980
District I - (505) 748-1283
815 S. First
Alameda, 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

Form C
Originated 8

Submit Or
Plus 1
to approp
District C

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator HALLIBURTON
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Brownfield TX
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Chaparral
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 88231	State TEXAS
7. Location of Material (Street Address or ULSTR) 1301 W. Webb Brownfield, Texas 79316	
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 results are from Halliburton's Brownfield yard. This waste was generated from the washing of oilfield equipment. I have included a certificate of waste status and chain of custody. Sundance would like approval to accept this material into our Parabo Facility.

Estimated Volume 200 bbls. cy Known Volume (to be entered by the operator at the end of the haul) cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 2-11-00
Waste Management Facility Authorized Agent

TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 02-15-00

APPROVED BY: Martyn J. Kelly TITLE: Environmental Geologist DATE: 02-18-00

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

COMPANY / GENERATOR Halliburton Energy Services

ADDRESS 1301 W. Webb, Brownfield, TX 77316

GENERATING SITE Same

COUNTY _____ STATE TX

TYPE OF WASTE Washack Grit

ESTIMATED VOLUME _____

GENERATING PROCESS Waste water/grit from

Washing of oilfield equipment.

REMARKS _____

NMOCD FACILITY Sundance

TRUCKING COMPANY Chaparral Services, 1603 Ave O, Eunice, NM

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 261.3.

AGENT Scott Nelson

SIGNATURE

NAME Scott Nelson

PRINTED

ADDRESS HES 5801 Livingston Hwy

Hobbs NM 88240

DATE 2-11-2000

FEB-11-00 08:10 FROM: CUST. SVC. CTR. MIDLAND

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX: 505-392-7062

Sample Type: Sludge
Sample Condition: Intact/loose
Project #: None Given
Project Name: None Given
Project Location: Webb Street - Brownfield, TX.

Sampling Date: 01/18/00
Receiving Date: 01/18/00
Analysis Date: 01/18/00

ELT#	FIELD CODE	CUST. SVC. CTR. MIDLAND	TPH (mg/kg)	9156314511
22910	Composite		8800	

QUALITY CONTROL
TRUE VALUE
% PRECISION
BLANK

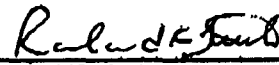
471

474

99

<10

Methods: EPA 418.1


Randal K. Tuttle

1-28-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBS, NEW MEXICO 88240
FAX: 505-392-7062

Sample Type: Sludge
Sample Condition: Intact/Iced
Project #: None Given
Project Name: None Given
Project Location: Webb Street - Brownfield, TX
Field Code: Composite

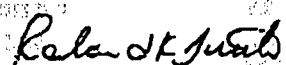
Sampling Date: 01/18/00
Receiving Date: 01/18/00
Extraction Date: 01/19/00
Analysis Date: 01/25/00

TCLP SEMIVOLATILE ORGANICS (mg/L)	REG. LIMIT	REPORT LIMIT	ELT# 22910	%EA
Cresols	200	<0.010	ND	63
1,4-Dichlorobenzene	7.5	<0.010	ND	52
2,4-Dinitrotoluene	0.13	<0.010	ND	86
Hexachlorobenzene	0.13	<0.010	ND	42
Hexachlor-1,3-butadien	0.5	<0.010	ND	54
Hexachloroethane	3.0	<0.010	ND	66
Nitrobenzene	2.0	<0.010	ND	62
Pentachlorophenol	100	<0.010	ND	82
Pyridine	5.0	<0.010	ND	20
2,4,5-Trichlorophenol	400	<0.010	ND	82
2,4,6-Trichlorophenol	2.0	<0.010	ND	78

ND= NOT DETECTED, < REPORTING LIMIT
SYSTEM MONITORING COMPOUNDS

	% Recovery
2-Fluorophenol	40
Phenol-d5	38
Nitrobenzene-d5	70
2-Fluorobiphenyl	74
2,4,6-Tribromophenol	102
Terphenyl-d14	88

Method: SW 846-8270.1311


Ralene K. Tuttle

1-28-00
Date

12600 West I-20 East • Odessa, Texas 79765 • (915) 563-1800 • Fax (915) 563-1713

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBS, NEW MEXICO 88240
FAX: 505-392-7062

Sample Type: Sludge
Sample Condition: Intact/ Iced
Project #: None Given
Project Name: None Given
Project Location: Webb Street - Brownfield, TX.

Sampling Date: 01/18/00
Receiving Date: 01/18/00
Analysis Date: See below

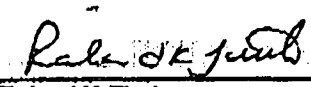
ELT#	Field Code	REACTIVITY		CORROSIVITY	IGNITABILITY
		H ₂ S	CN-	(s.u.)	
		(mg/kg)	(mg/kg)	NON-CORROSIVE	
22910	Composite	106	<2.0	Non Corrosive 9.10	>200 deg F ✓

ANALYSIS DATE

1/25/00 1/24/00 1/20/00

1/21/00

METHODS: EPA SW-846-9045, 1010M


Randal K. Tuttle

1-28-00
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBES, N.M. 88240
FAX: 505-392-7062

Sample Type: Sludge
Sample Condition: Intact/Iced
Project #: None Given
Project Name: None Given
Project Location: Webb Street - Brownfield, TX

Sampling Date: 01/18/00
Receiving Date: 01/18/00
Analysis Date: 01/19/00

TCLP VOLATILES (mg/L)	22910	FQL	BLANK	%EA	%DEV
1,1-Dichloroethane	ND	0.001	ND	105	-10.0
2-Butanone	ND	0.010	ND		-8.5
Chloroform	ND	0.001	ND		-11.1
Benzene	ND	0.001	ND	110	-14.5
1,2-Dichloroethane	ND	0.001	ND		-17.0
Vinyl Chloride	ND	0.001	ND		-0.4
Carbon Tetrachloride	ND	0.001	ND		-15.4
Trichloroethene	ND	0.001	ND	115	-22.6
Tetrachloroethene	ND	0.001	ND		5.6
Chlorobenzene	ND	0.001	ND	82	12.7
1,4-Dichlorobenzene	ND	0.001	ND		8.3

SYSTEM MONITORING COMPOUNDS

dibromofluoromethane
toluene-d8
4-bromofluorobenzene

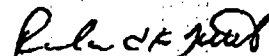
% RECOVERY

119
112
109

ND = < FQL

FQL = PRACTICAL QUANTITATION LIMIT

Methods: EPA SW 846-8240, 1311


Raland K. Tuttle

1-28-00
Date

12600 West I-20 East • Odessa, Texas 79765 • (915) 563-1800 • Fax (915) 563-1713

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

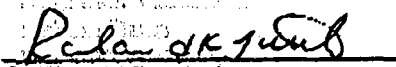
HALLIBURTON ENERGY SERVICES
ATTN: MR. SCOTT NELSON
5801 LOVINGTON HWY.
HOBBS, N.M. 88240
FAX: 505-382-7062

Sample Type: Sludge
Sample Condition: Intact/loose
Project #: None Given
Project Name: None Given
Project Location: Webb Street - Brownfield, TX.

Sampling Date: 01/18/00
Receiving Date: 01/18/00
Analysis Date: 01/24/00

		TCMP METALS (mg/L)							
ELT#	Field Code	Ag	As	Ba	Cd	Cr	Hg	Pb	Se
22910	Composite	<0.01	<0.002	1.10	0.009	0.28	<0.002	<0.10	<0.002
REPORTING LIMIT		0.01	0.002	0.10	0.002	0.03	0.002	0.1	0.002
% IA		102	104	84	98	95	101	100	90
% EA		98	109	103	95	102	97	98	101

METHODS: EPA SW 846-1311, 3050, 7760, 7082, 7080, 7130, 7190, 7470, 7420, 7742


Raland K. Tuttle

1-28-00
Date

P. O. Box 1980
Hobbs, NM 88241-1980
District I - (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-15
Originated 8/81

Submit Origin
Plus 1 Co.
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Koch Pipeline
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Crouch Station
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Unknown
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) S18 T18S R36E	
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 results are for Koch Pipeline's Crouch Station. We have accepted this material into our facility twice before. This waste is generated from moisture pulled from the vadose zone by the vacuum system and collected in a settling tank on-site. This waste stream has not changed. I have included a certificate of waste status and analytical results from the source of this waste. Sundance would like approval to accept this material into our Parabo disposal facility.

Note: This settling tank is very full, please check to see if a verbal approval is available on this material.

Estimated Volume 4 bbls. cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna Roach TITLE: OFFICE MGR DATE: 2-14-80
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 02-15-80
APPROVED BY: Martyn J. Fitch TITLE: Environmental Geologist DATE: 02-18-80

CERTIFICATE OF WASTE STATUS**NON-EXEMPT WASTE MATERIAL****ORIGINATING LOCATION:** Koch Pipeline Crouch Station**SOURCE:** Condensed Water from Soil Vapor Extraction System**DISPOSAL LOCATION:** Parabo Facility

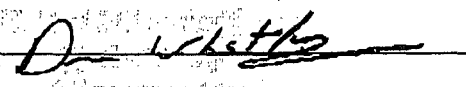
As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature 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 2613.

I, the undersigned, as agent for Koch Pipeline Company concur with the status of the waste from the subject site.

Name: W. Dee Whatley

Title/Agency: Safety & Environmental Solutions, Inc.

Address: 703 East Clinton Suite 103
Hobbs, New Mexico 88240
505-397-0510

Signature 

Date: 2/14/00

Safety & Environmental Solutions, Inc.

December 22, 1997

Sundance Services
P.O. Box 1737
Eunice, New Mexico 88231

Dear Sirs:

This letter is to explain the classification of the water produced from Koch Pipeline's Crouch Station soil vapor extraction system. The soil vapor extraction system was installed to remediate the vadose zone under a crude oil spill in 1996. The water is generated from moisture pulled from the vadose zone by the vacuum system and collected in a settling tank on-site. On November 1, 1996, a composite soil sample was submitted to Cardinal Laboratories in Hobbs, New Mexico for RCI and TCLP analysis. The results of the soil analysis were non-hazardous and by knowledge of process the water pulled from this zone is classified as **non-exempt, non-hazardous**. I have enclosed the test results for your files.

We request that we use your Parabo Facility to dispose of this water. If I may be of further service or answer any questions, please call.

Sincerely,



Bob Allen REM, CET, CES
President

BA/nh



PHONE (815) 673-7001 • 2111 BEECHWOOD • ALA.

PHONE (505) 393-2325 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4689 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DYKE BROWNING
703 E. CLINTON
HOBBS, NM 88240
FAX TO:

Receiving Date: 11/01/96
Reporting Date: 11/04/96
Project Number: NOT GIVEN
Project Name: CROUCH STATION (KOCH)
Project Location: SOUTH OF LOVINGTON, NM

Sampling Date: 11/01/96
Sample Type: SOIL
Sample Condition: COOL, INTACT
Sample Received By: BC
Analyzed By: GP

LAB NUMBER SAMPLE ID	REACTIVITY			
	Sulfide (ppm)	Cyanide (ppm)	CORROSIVITY (pH)	IGNITABILITY
ANALYSIS DATE:	10/5/96	10/5/96	10/4/96	10/4/96
H2695-15 RANDOM COMP.	<5	<5	7.40	Nonflammable
SPOILS PILE				
Quality Control	NR	NR	7.02	NR
True Value QC	NR	NR	7.00	NR
% Accuracy	NR	NR	100	NR
Relative Percent Difference	NR	NR	0.6	NR

METHOD: EPA SW 846-7.3, 7.2, 1010


Chemist

11/04/96
Date

ARDINAL **LABORATORIES**

PHONE (915) 873-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4869 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

PHONE (906) 796-2800 • 5282 34th ST. • LUBBOCK, TX 79407

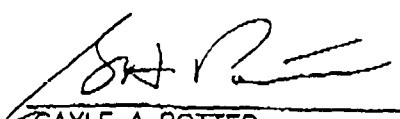
ANALYTICAL RESULTS FOR
 SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
 ATTN: DYKE BROWNING
 703 EAST CLINTON
 HOBBS, NEW MEXICO 88240
 FAX TO: 505-393-4388

Receiving Date: 11/01/96
 Reporting Date: 11/11/96
 Project Number: NOT GIVEN
 Project Name: CROUCH STATION (KOCH)
 Project Location: SOUTH OF LOVINGTON, NM

Sampling Date: 11/01/96
 Sample Type: SOIL
 Sample Condition: COOL & INTACT
 Sample Received By: BC
 Analyzed By: LW & AK

TCLP METALS

LAB NUMBER SAMPLE ID	As ppm	Ag ppm	Ba ppm	Cd ppm	Cr ppm	Pb ppm	Hg ppm	Se ppm
ANALYSIS DATE:	11/6/96	11/6/96	11/6/96	11/6/96	11/6/96	11/6/96	11/6/96	11/6/96
EPA LIMITS:	5	5	100	1	5	5	0.2	1
H2693-15 COMP. SPOILS PILE	<0.05	<0.05	0.70	<0.01	<0.05	0.16	<0.002	<0.05
Quality Control	2.450	4.750	4.750	4.650	4.440	2.500	0.0089	0.435
True Value QC	2.500	5.000	5.000	5.000	5.000	2.500	0.0100	0.500
% Accuracy	98	95	95	93	88	100	89	87
Relative Percent Difference	1	1	2	1	1	1	6	1
METHODS: EPA 1311, 600/4-91/	200.7	200.7	200.7	200.7	200.7	200.7	245.1	200.7


 GAYLE A. POTTER
 Chemist

11/11/96
 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. 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

PHONE (505) 326-4689 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DYKE BROWNING
703 E. CLINTON
HOBBS, NM 88240
FAX TO:

Receiving Date: 11/01/96
Reporting Date: 11/06/96
Project Number: NOT GIVEN
Project Name: CROUCH STATION (KOCH)
Project Location: SOUTH OF LOVINGTON, NM
Sample ID: RANDOM COMPOSITE OF SPOILS PILE
Lab Number: H2693-15

Analysis Date: 11/05/96
Sampling Date: 11/01/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H2693-15	Method Blank	QC	True Value %IA	QC
Vinyl Chloride	0.20	<0.005	<0.005	0.085	85	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.115	115	0.100
Methyl Ethyl Ketone	200	<0.005	<0.005	0.082	82	0.100
Chloroform	6.0	<0.005	<0.005	0.093	93	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.083	83	0.100
Benzene	0.5	<0.005	<0.005	0.082	82	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.082	82	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.088	88	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.105	105	0.100
Chlorobenzene	100	<0.005	<0.005	0.091	91	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.090	90	0.100

% RECOVERY

Dibromofluoromethane	104
Toluene-d8	98
Bromofluorobenzene	98

METHODS: EPA SW 846-8260

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

11/6/96
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 any and 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 spot 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 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.



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4668 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

PHONE (806) 796-2800 • 5262 34th ST. • LUBBOCK, TX 79407

ANALYTICAL RESULTS FOR
SAFETY & ENVIRONMENTAL SOLUTIONS, INC.
ATTN: DYKE BROWNING
703 E. CLINTON
HOBBS, NM 88240
FAX TO:

Receiving Date: 11/01/86
Reporting Date: 11/04/96
Project Number: NOT GIVEN
Project Name: CROUCH STATION (KOCH)
Project Location: SOUTH OF LOVINGTON, NM
Sample ID: RANDOM COMPOSITE OF SPOILS PILE
Lab Number: H2693-15

Analysis Date: 11/02/96
Sampling Date: 11/01/96
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: BC

TCLP SEMIVOLATILES (ppm)	EPA LIMIT	Sample Result H2693-15	Method Blank	QC	True Value %IA	QC
Pyridine	5.00	<0.008	<0.002	0.048	98	0.050
1,4-Dichlorobenzene	7.50	<0.008	<0.002	0.048	98	0.050
o-Cresol	200	<0.008	<0.002	0.052	104	0.050
m, p-Cresol	200	<0.008	<0.002	0.053	106	0.050
Hexachloroethane	3.00	<0.008	<0.002	0.050	100	0.050
Nitrobenzene	2.00	<0.008	<0.002	0.049	98	0.050
Hexachloro-1,3-butadiene	0.500	<0.008	<0.002	0.048	96	0.050
2,4,6-Trichlorophenol	2.00	<0.008	<0.002	0.049	98	0.050
2,4,5-Trichlorophenol	400	<0.008	<0.002	0.050	100	0.050
2,4-Dinitrotoluene	0.130	<0.008	<0.002	0.051	102	0.050
Hexachlorobenzene	0.130	<0.008	<0.002	0.050	100	0.050
Pentachlorophenol	100	<0.008	<0.002	0.048	96	0.050

% RECOVERY

Fluorophenol	72
Phenol-d5	69
Nitrobenzene-d5	89
2-Fluorobiphenyl	95
2,4,6-Tribromophenol	87
Terphenyl-d14	103

METHODS: EPA SW 846-8270

Burgess J. Cooke
Burgess J. Cooke, Ph. D.

11/04/90
Date

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-130
Originated 8/8/9

Submit Origin:
Plus 1 Cop
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
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 882318. 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 analytical 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 L. Roach TITLE: OFFICE MGR DATE: 1-17-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)
APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 01-19-00
APPROVED BY: Monty J. King TITLE: Environmental Geologist DATE: 01-24-00

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 / liquids

ESTIMATED VOLUME 40 drums

GENERATING PROCESS Grit from washing of equipment

REMARKS _____

NMOC D FACILITY Sundance

TRUCKING COMPANY Key Energy (Howland) 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 261.3.

AGENT Scott Nelson

NAME Scott Nelson

ADDRESS 5801 Livingston Hwy

Hobbs, NM 88240

DATE 1-1-00

PRIDINAL LABORATORIES

roy Name: Haliburton Energy Services

2315 First

1954

30539127810

30-1301

1000

11-11-68

Names: WASH BACK GRIT

Location: WASHACK GILTS

B.L.D. 并

Sample LD.

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Relinquished:

魚之英

Ag pay

225

ed: Bv: {Circle One}

• 3000 - 3000

Date: 4-11-08

Time:

Date: 17K 90

Time: 3:00

ed: Bv. {Circle One}

• 3000 •

Received By:

Received By: I Lab Staff

Sample Condition

COOL	100%	Yes	No	Yes	No
		☒	☐	☒	☐

100

100

1

CHECKED BY:

(SPECIAL)

Phone Result ☒ Yes ☐ No

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

100

100

[illegible]

Additional Fax #:



Company Name: H
Project Manager: S
Address: 2311
City: ADELPHI
Phone #: 505 3
Fax #: 505 30
Project #: WASHY
Project Name: WAS
Project Location: W

LAB ID. #

并

PLEASE NOTE: Letters and comments card
are welcome, including letters for suggestions and
concern. We try to respond to letters for
a month or so after the event. Comments are
not published.

Sampler Rejection:

うた

Notwithstanding the

李士珍

Delivered By (City)

UPS - FedEx - Bus



PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

FAX TO: (505) 392-7062

Project Location: WASH RACK, ARTESIA

Analyzed By: AH/GP

PAGE 5/10

*Sample contains <10% solid.

12/23/99
Date

H4516M.XLS

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ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/16/99
Reporting Date: 12/27/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, ARTESIA

Sampling Date: 12/16/99
Sample Type: LIQUID*
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: AH/BC

REACTIVITY

LAB NUMBER SAMPLE ID Sulfide Cyanide CORROSIVITY IGNITABILITY
(ppm) (ppm) (pH) (°F)

ANALYSIS DATE:	12/22/99	12/23/99	12/17/99	12/20/99
H4516-1 #1 WASHRACK	Not reactive	Not reactive	7.76	>140
GRIT				
Quality Control	NR	NR	7.07	NR
True Value QC	NR	NR	7.00	NR
% Recovery	NR	NR	101	NR
Relative Percent Difference	NR	NR	0.6	NR

*Sample contains <10% solid.

METHOD: EPA SW 846-7.3, 7.2, 1010, 1311, 40 CFR 261

Bugeth LaCasse
Chemist

12/27/99
Date

PLEASE SEE CARDINAL'S POLICY 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
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/16/99
Reporting Date: 12/17/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASH RACK, ARTESIA
Lab Number: H4516-1
Sample ID: #1 WASH RACK GRIT

Analysis Date: 12/16/99
Sampling Date: 12/16/99
Sample Type: LIQUID*
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

EPA Sample Result Method True Value		TCLP SEMIVOLATILES (ppm) LIMIT H4516-1 Blank QC % Recov. QC	
Pyridine	5.00	<0.020	<0.005 0.008 12 0.050
1,4-Dichlorobenzene	7.50	0.035	0.005 0.038 72 0.050
o-Cresol	200	<0.020	<0.005 0.017 34 0.050
m, p-Cresol	200	0.087	<0.005 0.017 34 0.050
Hexachloroethane	3.00	<0.020	<0.005 0.027 64 0.050
Nitrobenzene	2.00	<0.020	<0.005 0.034 68 0.050
Hexachloro-1,3-butadiene	0.500	<0.020	<0.005 0.034 68 0.050
2,4,6-Trichlorophenol	2.00	<0.020	<0.005 0.032 64 0.050
2,4,5-Trichlorophenol	400	<0.020	<0.005 0.036 72 0.050
2,4-Dinitrotoluene	0.130	<0.020	<0.005 0.045 90 0.050
Hexachlorobenzene	0.130	<0.020	<0.005 0.044 88 0.050
Pentachlorophenol	100	<0.020	<0.005 0.040 80 0.050

% RECOVERY

Fluorophenol	23
Phenol-d5	22
Nitrobenzene-d5	62
2-Fluorobiphenyl	87
2,4,6-Tribromophenol	72
Terphenyl-d14	99

METHODS: EPA SW 846-8270, 1311, 3510

*Sample contains <10% solid.

Burgess J. A. Cooke
Burgess J. A. Cooke, Ph. D.

Date

12/17/99

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PHONE (505) 393-2328 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HALLIBURTON ENERGY SERVICES
ATTN: SCOTT NELSON
5801 LOVINGTON HWY
HOBBS, NM 88240
FAX TO: (505) 392-7062

Receiving Date: 12/16/99
Reporting Date: 12/17/99
Project Number: NOT GIVEN
Project Name: WASH RACK GRIT
Project Location: WASHRACK, ARTESIA
Lab Number: H4516-1
Sample ID: #1 WASH RACK GRIT

Analysis Date: 12/16/99
Sampling Date: 12/16/99
Sample Type: LIQUID*
Sample Condition: COOL & INTACT
Sample Received By: GP
Analyzed By: BC

TCLP VOLATILES (ppm)	EPA LIMIT	Sample Result H4516-1	Method Blank	QC	%Recov.	True Value QC
Vinyl Chloride	0.20	<0.005	<0.005	0.097	97	0.100
1,1-Dichloroethylene	0.7	<0.005	<0.005	0.101	101	0.100
Methyl Ethyl Ketone	200	<0.050	<0.050	0.086	86	0.100
Chloroform	6.0	<0.005	<0.005	0.097	97	0.100
1,2-Dichloroethane	0.5	<0.005	<0.005	0.103	103	0.100
Benzene	0.5	<0.005	<0.005	0.097	97	0.100
Carbon Tetrachloride	0.5	<0.005	<0.005	0.112	112	0.100
Trichloroethylene	0.5	<0.005	<0.005	0.098	98	0.100
Tetrachloroethylene	0.7	<0.005	<0.005	0.114	114	0.100
Chlorobenzene	100	<0.005	<0.005	0.102	102	0.100
1,4-Dichlorobenzene	7.5	<0.005	<0.005	0.099	99	0.100

% RECOVERY

Dibromofluoromethane	85
Toluene-d8	90
Bromofluorobenzene	82

METHODS: EPA SW 846-8260, 1311

*Sample contains <10% solid.

Burgess J. A. Cooke, Ph. D.
Burgess J. A. Cooke, Ph. D.

12/17/99
Date

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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 8/87

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒	4. Generator Halliburton
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site Hobbs Facility
2. Management Facility Destination SUNDANCE SERVICES INC.	6. Transporter Halliburton
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	
7. Location of Material (Street Address or ULSTR) 5801 Lovington Hwy., Hobbs, NM 88240	
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 Halliburton's Hobbs facility waste cement. This waste is generated when the generator mixes up cement for an oilfield cement job and some cement is left over. It is then put into a truck for holding until disposal. I have attached a certificate of waste status and MSDS on all of the cement types used by this facility. Sundance would like approval to accept this material into our disposal.

Estimated Volume 400 tons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy
SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: 1-17-00
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO. 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 01-19-00
APPROVED BY: Monty J. King TITLE: Environmental Geologist DATE: 01-24-00

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

COMPANY / GENERATOR Halliburton Energy ServicesADDRESS 5801 Livingston Hwy, Hobbs, NM 88240GENERATING SITE SameCOUNTY Lea STATE NMTYPE OF WASTE Waste CementESTIMATED VOLUME 400 TonsGENERATING PROCESS Return Unused Cement
from job locations.

REMARKS _____

NMOCD FACILITY SundanceTRUCKING 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 261.3.

AGENT Scott Nelson

SIGNATURE

NAME Scott Nelson

PRINTED

ADDRESS 5801 Livingston HwyHobbs, NM 88240DATE 1-11-00

400 TONS

Halliburton Energy Services Shipping Papers
For
Movement of Materials According to Federal Regulations
As specified on CFR 49 sec.117.817 and 176.24

Location: Hobbs, New Mexico

Truck or Trailer No. 52043-8101

For Emergency Contact:
Name: Steve Luscomb
Telephone: (505) 392-6531

Driver _____
U.S. DOT Hazmat Reg. No. -051496 005 031E

Total Net Lbs 31,100 No. Cont. _____ Type: Bulk

Not Restricted

Halco Name & Number: Cement-Bulk

Gross Lbs./Pkg. 90.924 #5K ERG
94.282 #5K

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Signature: _____

Time Loaded _____

Bulk Ticket No. _____ Freight Bill No. _____

Premium Cement	23,154 lbs.
Poz Mix	3,960 lbs.
Silica	2,904 lbs.
HAI-9	21 lbs.
CFR-3	92 lbs.
Gilsonite	1,320 lbs.
HA1A0-344	115 lbs.
HR-7	46 lbs.
Salt (Cement grade)	264 lbs.

FOR

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

LOCATION: 15540

FOR EMERGENCY CONTACT:

TRUCK# OR TRLR# : 52043-8101

NAME: STEVE LUSCOMBE

TELEPHONE: (505) 392-6531

DRIVER:

U.S. DOT HAZMAT REG. NO. - 060497 003 42F

*HM:*****

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: BULK

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: CEMENT - CLASS H - PREMIUM - BULK 516.00272

* * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: BULK

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: POZMIX(R) A - BULK 516.00286

* * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: BULK

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: SILICALITE ADDITIVE - 50/50 W/ POZMIX 516.00443

* * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: 50 LB BAG

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: HALAD(R) 9 CEMENT ADDITIVE 70.15556

* * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: 50 LB BAG

* *****

* * NOT RESTRICTED

* *

* *

* *

* *

* *HALCO NAME & NO.: CFR-3 CEMENT FRICTION REDUCER DEFOAM 516.00295

* * GROSS LBS/PKG: ERG =>

FOR

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

LOCATION: 15540

FOR EMERGENCY CONTACT:

TRUCK# OR TRLR# : 52043-8101

NAME: STEVE LUSCOMBE

TELEPHONE: (505) 392-6531

DRIVER:

U.S. DOT HAZMAT REG. NO. - 060497 003 42F

*HM:*****

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: BULK

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: GILSONITE(R) RESIN - BULK 516.00337

* * * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: 50 LB BAG

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: HALAD(R) 344 CEMENT ADDITIVE 516.00227

* * * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: 50 LB BAG

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: HR-7 ADDITIVE 890.50903

* * * GROSS LBS/PKG: ERG =>

* * TOT GROSS LBS _____ NUM CONTAINERS: TYPE: BULK

* *****

* * NOT RESTRICTED

* *

* *

* *

* *HALCO NAME & NO.: SALT - CEMENT GRADE - BULK 516.00315

* * * GROSS LBS/PKG: ERG =>

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

SIGNATURE _____

MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 01-17-96

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 NO F / NO 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 WORSENERD 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 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
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 01-17-96

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 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
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 01-17-96

EMERGENCY TELEPHONE: 405/251-4689 OR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: SILICALITE ADDITIVE - 50/50 W/ POZMIX PART NUMBER: 516004430
PKG QTY: BULK APPLICATION: CEMENT ADDITIVE
SERVICE USED: CEMENT

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

COMPONENT+ + + + +	PERCENT	TLV	PEL
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SILICA, AMORPHOUS-FUMED	> 60 %	10 MG/M3	6 MG/M3
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***** SECTION III - PHYSICAL DATA *****

PROPERTY	MEASUREMENT
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APPEARANCE	BLACK SOLID, POWDER
ODOR	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.380
BULK DENSITY	26.30 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/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	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 LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : IARC

PRODUCT TOXICITY DATA: TOX ORL-RAT LD50: 3160 MG/KG
TOX IPR-RAT LDLO: 50 MG/KG

PRODUCT TLV: NOT ESTABLISHED

----- 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.

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. 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):

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):
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 - 50/50 W/ POZMIX 516.004430

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.

***** 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 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

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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
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SERVICES.

MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 08-20-97

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 WORSENER 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 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
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 01-17-96

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 NO NO
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 WORSENER 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! 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 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 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 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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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
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 01-17-96

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
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***** 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 WORSENER 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 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
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 08-19-97

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
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MODIFIED ACRYLAMIDE COPOLYMER	> 60 %	10 MG/M3	15 MG/M3
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***** 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	NO	NO	
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 SYMPTOMS AFFECTED:

A REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENERD 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):

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 HALAB(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 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

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MATERIAL SAFETY DATA SHEET
HALLIBURTON ENERGY SERVICES
DUNCAN, OKLAHOMA 73536

DATE: 12-30-97
REVISED DATE 01-17-96

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: EMENTING

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

COMPONENT+++++	PERCENT	TLV	PEL
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MODIFIED LIGNOSULFONATE	UNK	X 10 MG/M3	15 MG/M3
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***** SECTION III - PHYSICAL DATA *****

PROPERTY	MEASUREMENT
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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 NO NO

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 WORSENER 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.

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
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.

SALT-CEMENT GRADE, BULK

PAGE

MATERIAL SAFETY DATA SHEET
HALLIBURTON SERVICES
DUNCAN, OKLAHOMA 73536

DATE: - - -
REVISED DATE 09-04

EMERGENCY TELEPHONE: 405/251-3565 DR 405/251-3569
AFTER HOURS: 405/251-3760

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

CHEMICAL CODE: SALT-CEMENT GRADE, BULK PART NUMBER: 516003
PKG QTY: BULK APPLICATION: ACCELERATOR
SERVICE USED: CEMENT

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

COMPONENT	PERCENT	TLV	PEL
SODIUM CHLORIDE	> 60 %	10 MG/M3	15 MG/M3

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

PROPERTY	MEASUREMENT
APPEARANCE	WHITE SOLID, CRYSTALLINE
D	ODORLESS
SPECIFIC GRAVITY (H2O=1)	2.165
BULK DENSITY	71.00 LB/CU.FT.
PH	5.2 FOR SAT SOL
SOLUBILITY IN WATER AT	
20 DEG C. GMS/100ML H2O	35.7
BIODEGRADABILITY	N/A
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	SOLUBLE
PARTITION COEF (OCTANOL IN WATER)	NOT EVALUATED

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

NEPA(704) RATING:

HEALTH 0 FLAMMABILITY 0 REACTIVITY 0 SPECIAL NONE
FLASH POINT NONE
AUTOIGNITION TEMPERATURE NO F / NO C
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 *****

CARCINOGENIC DETERMINATION:

PRODUCT OR COMPONENTS ARE NOT LISTED AS A POTENTIAL CARCINOGEN
ACCORDING TO : "NTP, IARC, OSHA, OR, ACIGH".

PRODUCT TOXICITY DATA: IRR SKN-RBT 50 MG/24H MLD
IRR EYE-RBT 100 MG/34H SEV
TOX ORL-HMN TDLO:12357 MG/KG/23D-C
TOX ORL-RAT LD50: 3000 MG/KG
AQU TLM96:OVER 1000 PPM

PRODUCT TLV: 10 MG/M3 (N)

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

ROUTES OF EXPOSURE:

EYE OR SKIN CONTACT, INHALATION.

EYE:

MAY BE IRRITATING.

SKIN:

MAY BE IRRITATING.

INHALATION:

MAY BE IRRITATING.

INGESTION:

NO DATA AVAILABLE

CHRONIC EFFECTS:

NO CHRONIC EFFECTS EXPECTED.

OTHER SYMPTOMS AFFECTED:

REVIEW OF AVAILABLE DATA DOES NOT IDENTIFY ANY CONDITIONS WORSENERD BY
EXPOSURE TO THIS PRODUCT.

***** 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):

NOT NORMALLY NECESSARY.

TOXIC DUST/MIST RESPIRATOR.

VENTILATION:

USE ONLY WITH ADEQUATE VENTILATION.

PROTECTIVE GLOVES:

NORMAL WORK GLOVES.

EYE PROTECTION:

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

PRECAUTIONARY LABELING SALT-CEMENT-GRADE, BULK

516.003150

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.

CONTAINER DISPOSITION:

CONTAINER SHOULD BE TRANSPORTED WITH ALL CLOSURES IN PLACE AND RETURNED
FOR REUSE.

***** 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 YES ACOIN YES 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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Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
111 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 8/87

Submit Origin
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☒ Verbal Approval Received: Yes ☒ 1-13-00 No ☐	4. Generator Halliburton Energy
2. Management Facility Destination SUNDANCE SERVICES INC.	5. Originating Site Hobbs Facility
3. Address of Facility Operator P.O. BOX 1737 Eunice NM 882318. State NEW MEXICO	6. Transporter Halliburton
7. Location of Material (Street Address or ULSTR) 5801 Lovington Hwy Hobbs, NM 88240	
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 is for Enviroguard Antifreeze/Coolant. This material is used to test pipe lining on a pump job. Due to the extreme cold this unused antifreeze fell below standard temperatures in storage. This material is needed to be disposed of. I have included a certificate of waste status. Sundance would like approval to accept this material into our Parabo Facility.

Estimated Volume 500 gallons cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: Donna L. Roach TITLE: OFFICE MGR DATE: _____
Waste Management Facility Authorized Agent
TYPE OR PRINT NAME: DONNA L. ROACH TELEPHONE NO: 505-394-2511

(This space for State Use)

APPROVED BY: Donna Williams TITLE: Environ. Eng. Specialist DATE: 01-19-00
APPROVED BY: Monty J. Huff TITLE: Environmental Geologist DATE: 01-24-00

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

COMPANY / GENERATOR Halliburton Energy ServicesADDRESS 5801 Livingston Hwy, Hobbs NM 88240GENERATING SITE SameCOUNTY Lea STATE NMTYPE OF WASTE LiquidESTIMATED VOLUME Approx 500 gallonsGENERATING PROCESS Testing of product lines.**REMARKS**NMOCD FACILITY SundanceTRUCKING COMPANY Halliburton Energy Services

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 261.3.

AGENT Scott Nelson

SIGNATURE

NAME Scott Nelson

PRINTED

ADDRESS SameDATE 12-23-99



MATERIAL SAFETY DATA SHEET

ENVIROGUARD ANTIFREEZE / COOLANT

Revision: 1/96

HAZARD RATING

Health: 1 Flammability: 1 Reactivity: 0 Personal Protection: 0

1. GENERAL

Trade Name: Enviroguard Antifreeze / Coolant

Other Names: 1,2-Dihydroxypropane

1,2-Propanediol

Chemical Family: Glycol

Generic Name: Monopropylene Glycol

DOT HazMat Proper

Shipping Name: Not Regulated

DOT Hazard Class: Not Regulated

CAS NO.: See Section 9 UN/NA ID NO. N/A

2. CAUTION**SUMMARY OF HAZARDS**

Physical Hazards: Slightly Combustible Liquid

Acute Health Effects:
(Short Term)

Slight Eye Irritant

No Inhalation Hazard Identified From Data Found

No Skin Absorp. Hazard Identified From Data Found

No Skin Irritation Identified From Data Found

No Ingestion Hazard Identified From Data Found

All Above Are Conditioned For Intended Use
of Product

* Personal protection recommendations should be reviewed by purchasers. Workplace conditions are an important factor in specifying adequate protection.

DISCLAIMER: The information presented herein, while not guaranteed, was prepared by competent technical personnel and to the best of our knowledge, NO WARRANTY, OR GUARANTY, EXPRESS OR IMPLIED IS MADE REGARDING PERFORMANCE, STABILITY, OR OTHERWISE. This information is not intended to be as exclusive as to the manner and conditions of use, handling and storage. Other factors may involve other or additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remain the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any Federal, State or local laws.

TOTAL P. 34

2. CAUTION (CONT'D)

SUMMARY OF HAZARDS

Chronic Health Effects: No Chronic Health Effects Are Expected From Normal Use.

3. FIRE AND EXPLOSION

Flash Point: AP 211°F

Autoignition Temp.: AP 700°F

Flammable Limits -Normal

Atmospheric Temp.

and Pressure: Lower AP - 2.4

(% Vol in Air) Upper AP - 17.4

Fire and Explosion:

Heat from fire can generate flammable vapor when mixed with air and exposed to ignition source. Vapors can explode if confined. Vapors may travel long distances along ground before igniting/flashing back to vapor source. Fine sprays/mists may be combustible at temperatures below normal flash point. See supplement for hazards of aqueous solutions.

Extinguishing Media:

Dry Chemical, CO2, Alcohol Type Foam

Special Fire Fighting

Procedures:

Do not enter fire area without proper protection. See "Decomposition Products Possible." Fight fire from safe distance in a protected location. Heat may build pressure and rupture closed containers, spreading the fire and increasing the risk of burns and injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although soluble, may not be practical to extinguish fire by water dilution. Notify authorities if liquid enters sewer/public waters.

4. HEALTH HAZARDS

Summary of Acute Hazards:

Health Hazard:

Slight Health Hazard - see below for route-specific details.

ROUTE OF EXPOSURE

SIGNS AND SYMPTOMS

Inhalation

No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of inhalation exposure.

Eye Contact

May cause minor eye irritation.

Skin Absorption

No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of skin exposure.

Skin Irritation

No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of skin exposure.

4. HEALTH HAZARDS (CONT'D)

ROUTE OF EXPOSURE

Ingestion

SIGNS AND SYMPTOMS

No significant signs or symptoms indicative of any adverse health hazard are expected to occur as a result of ingestion.

Summary of Chronic Hazards and Special Health Effects

No chronic health effects are expected from normal use. This material or its emissions may aggravate pre-existing eye disease.

5. PROTECTIVE EQUIPMENT AND OTHER CONTROL MEASURES

Respiratory:

No special respiratory protection equipment is recommended under anticipated conditions of normal use with adequate ventilation.

Eye:

Eye protection such as chemical splash goggles and/or face shield must be worn when possibility exists for eye contact due to splashing or spraying liquid, airborne particles, or vapor. Contact lenses should not be worn.

Skin:

Not normally considered a skin hazard. When use results in skin contact wash hands and other exposed areas with mild soap and water before eating, drinking, smoking and when leaving work.

Engineering

Controls:

Local Exhaust

General Ventilation

Other Controls

Other Hygienic

and Work

Practices

Respiratory

Other Controls

No special ventilation is recommended under anticipated conditions of normal use beyond that needed for normal comfort control.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water. No special work practices are needed beyond the above recommendations under anticipated conditions of normal use.

6. OCCUPATIONAL EXPOSURE LIMITS

No established standards

7. EMERGENCY AND FIRST AID

Inhalation:

Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

7. EMERGENCY AND FIRST AID (CONT'D)

Eye Contact: In case of eye contact immediately rinse with clear water for 20 to 30 minutes, retracting eyelids often. Obtain emergency medical attention if pain, blinking, tears or redness persist.

Skin Contact: Not expected to present a significant skin hazard under anticipated conditions of normal use.

Ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Emergency Medical Treatment Procedures: After adequate first aid, no further treatment is required unless symptoms reappear.

8. SPILL AND DISPOSAL

Precautions If Material Is Spilled Or Released: May contaminate water supplies/pollute public waters. Evacuate/limit access. Equipment responder with proper protection to prevent flow to sewers or public waters. Stop release. Notify environmental authorities. Restrict water use for cleanup - slippery walking conditions. Spread granular cover. Impound/recover large land spill, soak up small spill with inert solids. Use suitable disposal containers. On water, material is soluble and may float or sink. May biodegrade. Contain/minimize dispersion. Disperse residue to reduce aquatic harm. Report per regulatory requirements.

Waste Disposal Methods: Landfill solids at permitted sites. Use registered transporters. Burn concentrated liquids, diluting with clean, low viscosity fuel. Avoid flameouts, assure emissions comply with applicable regulations. Dilute aqueous waste - may biodegrade. Avoid overloading/poisoning plant biomass. Assure effluent complies with applicable regulations. Soil or water should not be designated RCRA Hazardous Waste.

9. COMPONENTS

<u>COMPONENT NAME</u>	<u>CAS NO.</u>	<u>CARCINOGEN #</u>	<u>COMPOSITION WT.</u>
Propylene Glycol	57-55-6	N/AP	99%

10. LABEL INFORMATION

Manufacture: Marcus International, Inc.
616 FM 1960 West, Suite 210
Houston, Texas 77090

Use Statement: For Industrial Use Only
Keep Out Of Reach Of Children

10. LABEL INFORMATION (CONT'D)

Signal Word:	Caution
Physical Hazards:	Combustible
Health Hazards:	Eye Irritant
Precautionary Measures:	Do not handle near heat, sparks, or open flame. Avoid contact with eyes.
DOT Information:	UN/NA ID.#.-N/A/P
Hazard Class:	Not Regulated
Proper Shipping:	Not Regulated
In Case of Fire:	Use Dry Chemical, CO2, Alcohol Type Foam

First Aid

Inhalation: Not expected to present a significant inhalation hazard under anticipated conditions of normal use.

Eye Contact: In case of eye contact, immediately rinse with clear water for 20 to 30 minutes, retracting eyelids often. Obtain emergency medical attention if pain, blinking, tears or redness persist.

Skin Contact: Not expected to present a significant skin hazard under anticipated conditions of normal use.

Ingestion: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

Protective Equipment

Respiratory: No special respiratory protection normally required when used with adequate ventilation.

Eye: Chemical splash goggles and/or face shield.

Skin: No special clothing normally required. When use results in skin contact, wash thoroughly before eating, drinking, smoking or leaving work.

11. SUPPLEMENT**Regulatory Information****SARA TITLE III**

Section 311/312 Hazard Categories: None Apply

Section 313: No chemicals in this product exceed the de minimus reporting level established by SARA 313 and 40 CFR 372.

11. SUPPLEMENT (CONT'D)**Supplement to Sections II and IV Health Hazards****Acute health effects:**

One literature report indicates rare eczematous skin reactions and even more rarely an allergic skin reaction from exposure to propylene glycol. (Anderson and Starr, Hautzart 33(1): 1982)

Supplement to Sections II and III Fire and Explosion Hazards

Flammability of aqueous solutions of propylene glycol - aqueous solutions of propylene glycol greater than 22% by weight. If heated sufficiently, will produce flammable vapors. Only aqueous solutions of propylene glycol less than 22% should be used in sprinkler systems or other fire-fighting equipment. Always drain and flush systems containing propylene glycol with water before welding or other maintenance.

Nat'l Paint and Coatings Assoc's Hazardous Material ID System

Health	1
Flammability	1
Reactivity	0
*Personal Protection	0

* Personal protection recommendations should be reviewed by purchasers. Workplace conditions are an important factor in specifying adequate protection.